Site Location of Development Act
Comments Response Submittal May 1, 2022

Sugarloaf – West Mountain Expansion
Carrabassett Valley, Maine

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April 29, 2022

Department of Environmental Protection
Bureau of water Quality, Division of Environmental Assessment
Attn: Jami MacNeil, Project Manager
17 State House Station
Augusta, ME 04333

Subject: Sugarloaf West Mountain Expansion
Comment Response and Update Submittal

Dear Jami,

As we have discussed at various review progress meetings, VHB and Main-Land have been working with the Applicant on a comprehensive comment response and update package. To date, the Applicant has received written comments and follow up comments from William Noble, LG on environmental and geology related sections, verbal comments from Ken Libbey, PE, agency recommendations from MHPC, MIF&W, and MNAP, and feedback from LeeAnn Neal of the Army Corps of Engineers.

In the process of reviewing and addressing comments and in consideration of recent market research response, the Applicant has opted to update the residential offerings to favor duplex townhomes over some of the single-family residential lots. Further, there has been an emphasis on increased density of single-family residential lots in less environmentally sensitive areas and decreased density of development in environmentally and/or aesthetically sensitive areas. The update prioritizes a voluntary visual buffer along the main internal subdivision road.

The updated configuration results in a net reduction of 2 single-family residential lots and net addition of 14 duplex townhomes. Other notable improvements include the addition of shared driveways to reduce limit of disturbance and impacts, minimal extensions to ‘Road D’ and ‘Road E’, reconfiguration and optimization of stormwater ponds, and feasibility level design of residential drives and grading for accountability of stormwater flow patterns.

It is the Applicant’s intent that this submittal addresses review comments and substantially progress the review toward the permitting finish line.

Please do not hesitate to call or email with questions regarding this submission. The Applicant looks forward to further coordination DEP staff as project review continues.

Sincerely,

Main-Land Development Consultants, Inc.

Richard Dunton, P.E.
Director of Engineering

SECTION 1. DEVELOPMENT DESCRIPTION:

A. Narrative:

1. Objective and details:

Sugarloaf's West Mountain Project is a key component of Sugarloaf's comprehensive 2030 Plan and represents a major enhancement for Sugarloaf and significant opportunity to expand recreational and housing opportunities in the region. The purpose of the Project is to further develop the western side of Sugarloaf Mountain utilizing a master planning approach to providing additional ski trails, skier services infrastructure, roads, bridges, parking lots, and resort-based housing consisting of condominiums, duplex-style townhomes and single-family lots. The Project has several key goals:

- Enhance Sugarloaf's trail mix by providing additional intermediate and beginner terrain. This supports entry level and multigenerational use of the mountain ski terrain, which is critical to the future of the resort and serves to and avoid skiers attempting to ski on terrain over their ability.

- Protection against wind holds. On average, Sugarloaf experiences 7 days/season of ski terrain shutdown for wind holds. Wind holds require partial shutdown of lifts 15 days +/- year, resulting in a diminished skier experience. The proposed lift location and design will provide lift access to ski terrain with much less probability of wind holds. This will improve the skier experience and increase operational efficiency.

- Provide additional parking and convenient lift access for guests. In recent years, growth of skier visits has created occasional peak parking demands requiring 250+ cars parking on the main access road 6-8 days per year. The Town of Carrabassett Valley supports the construction of additional parking to address this concern.

- Providing four-season activities to enhance the operational success of ski areas moving forward. The addition of the lift will allow summer utilization of its mid-mountain Bullwinkle's Restaurant facility for weddings, concerts, and food & beverage service.

- Increase skier visits by providing additional single family residential housing on site.

- Increase the bed base with new townhomes and condominiums. Sugarloaf is currently experiencing a shortage of housing units available at the mountain.

- Develop the Project while being respectful of the environment and leaving hundreds of acres in the Project area undisturbed. The Project has undertaken significant efforts to shift ski trails and terrain out of sensitive areas to the extent feasible in order to preserve stream buffers and wildlife habitat.

The housing portion of the project consists of the following:

- 52 single family lots
- 4 condominium buildings, each totaling 22 to 28 units, depending on interior configuration for a total of 88 to 112 units
- 36 duplex style townhome buildings (72 units)
- A skier services building of 1500+/- square feet, including 24 restaurant seats, small kitchen & bar, small lodge seating area and an office/ticket sales.

2. Existing Facilities:

Sugarloaf Ski Resort is founded upon a ski mountain with a summit elevation of 4,237 feet above sea level. The Mountain provides a vertical drop of 2,820 feet. The Resort has developed 1,240 skiable acres of terrain in 162 trails and glades, all accessed by 13 lifts. The Resort has also developed a wide variety of housing over the years, including single-family residential, condominiums, townhomes, and hotel units.

The existing Project site is well suited for infill recreational and housing development and is currently bound to the east by the Sugarloaf base area, access road, and dense residential housing. To the west lies a residential subdivision, water reservoir, and an existing ski lift which currently serves the top of West Mountain. The West Mountain summit is currently occupied by Bullwinkle's Bistro, ski trails, and the existing lift top terminal. To the north lies the West Mountain Access Road and the Sugarloaf Golf Club.

The interior of the Project site itself is primarily managed forest which is intersected by work roads and equipment staging areas, and a water line which cross the site in the east-west direction. The site has historically been used for timber harvests.

B. Topographic Map:

A copy of a U.S.G.S. topographic map with the proposed new project boundary shown has been included as part of this Section. Also, all the Project Plans have been developed based on LiDAR contours of the project site.

C. Construction Plan:

The project has been broken down into essentially three Phases for construction, though these phases may be multi-year construction efforts, and subject to adjustments based on market demand and skier utilization. Please see the Phasing Plan for visual representation of the project phasing.

Following presumed project approval in fall/winter of 2022, the design team will prepare construction plans and bidding documents for the first phase of construction work. It is anticipated that bidding and contractor selection will occur winter of 2022 in preparation

of the start of clearing harvesting in 2022/2023 and construction start in spring of 2023.

Winter of 2022 is anticipated to consist of timber harvesting and clearing efforts for the phase one construction limits of disturbance, including select Phase 1 ski trails.

The 2023 construction season will begin the Phase 1 infrastructure including new lift, roads, stormwater BMPs, utilities, and condominium site work. It is anticipated that Phase 1 improvements will extend into and include the 2024/2025 construction season.

Phase II and subsequent phases will be considered based on the timing of Phase 1 build out and pace of real estate sales but is likely to start in 2025/2026.

Within Phase 1 construction, clearing and soils disturbance will be limited to an area manageable by, and scaled to, the number of crews or amount of construction effort. Perimeter sediment controls will be installed prior to earthwork in a given area. Gravel, riprap, permanent erosion control blanket, and erosion control mix covered surfaces will be deemed stable, signaling the ability to initial clearing of additional areas. Binder pavement, where paving is specified, will generally lag behind completion of gravel surfaces for one year, allowing time for settlement and construction maturation. Surface paving will be further delayed until risk of damage from construction activity is reduced.

D. Drawings:

1. Development Facilities: The Plans for this project depict the locations and sizes of the proposed areas throughout the project site, as well as all the drainage features.

2. Site Work: The Plans for the site work related to this project show through post development contours throughout the site. Road Plan and Profiles have been provided for the construction of the road network. Utilities Plans have also been provided for the construction and installation of the public water and sewer mains to serve the project site. Ski trail grading plans are included.

3. Existing Facilities: At the project development site, the only existing facilities are the ski trails that traverse a portion of the site; maintenance trail/roads, the tie-in water line near the top of the development; and the West Mountain Chair Lift, which will now terminate near its mid-station, with the remaining section of the lift to be removed. These areas are shown on the project site plans.

4. Topography. Existing and proposed topography for the roadway and real estate portions of the project are depicted with 2-foot contour intervals, developed with LiDAR data. Outside the developed area and within the proposed ski trails, 10-foot contours have been shown, due to the scale and size of the ski terrain.

SECTION 3. FINANCIAL CAPACITY:

A. Estimated Costs:

The projected project cost is detailed below:

Road and utility infrastructure	$12 mil
Parking lots	$2.2 mil
Ski Trails	$6 mil
Lift	$4 mil
Total Site Costs	$24.2 mil
Skier Services	$500k
Townhomes	$45 mil
Condos	$50 mil
Total Building Costs	$100 mil
Total Project Cost	$125 mil

B. Financing:

This project will be funded with a mix of corporate revenue and financing. A letter from the resort's accounting controller is included with this application, explaining the project budget and funding methods.

C. Certificate of Good Standing:

A copy of the Sugarloaf Mountain Corporation corporate standing is attached to this section.

SECTION 7. WILDLIFE AND FISHERIES

7.A Project Area Context

The Project area is the forested north flank of Sugarloaf Mountain south of West Mountain Road, west of Bucksaw Drive, east of and to the summit of the West Mountain Lift (approximate coordinates 45.056241, -70.323507). Slopes range from approximately 1,340-feet above-sea-level ("asl") at West Mountain Road to approximately 2,900-feet asl at the top of the chairlift. The area is sloping to the north, more steeply at the upper elevations than lower on the slope. Waters from on-site streams drain into the South Branch of the Carrabassett River (HUC 12: 010300030401) which, at its closest approach is approximately 0.2-mile from the northwest corner of the Project area. The USGS National Hydrography Dataset ("NHD") does not show any mapped streams within this Project area. Likewise, the National Wetlands Inventory ("NWI") has not mapped any wetlands within the Project area.

Land-use history within the area is characterized by logging activities with an extensive network of logging roads and skid trails present. Much of the forestland appears to have been cut multiple times, including within the last 10 years. The Project area is surrounded by and includes ski infrastructure (trails, lifts, snowmaking equipment) particularly to the southeast, where the main mountain operations are concentrated. Condominium and residential developments are present east and west of the Project area and a golf course sits to the north between the Project area and the South Branch of the Carrabassett River. An existing water main corridor crosses the site and connects the upper reservoir of the Riverside development to the west with the condo units along Bucksaw Drive. Southwest of the West Mountain Lift summit is the least developed portion of the Project area with some recent logging at lower, hardwood dominated slopes and mature softwood forest at the highest elevations.

The upper slopes of the Project area are characterized by sub-alpine fir forest with balsam fir (*Abies balsamea*), mountain ash (*Sorbus americana*), black spruce (*Picea mariana*), and heart-leaved paper birch (*Betula cordifolia*). Mid-elevation slopes are logging-disturbed mixed hardwood and

softwood forest, with abundant yellow birch (*Betula alleghaniensis*), balsam fir, red spruce (*Picea rubens*) and striped maple (*Acer pennsylvanica*), understories of hobblebush (*Viburnum lantanoides*), mountain maple (*Acer spicatum*), witch-hazel (*Hamamelis virginiana*), with scattered white pine (*Pinus strobus*) and northern white cedar and hemlock (*Tsuga canadensis*). Lower elevation forests consist of northern hardwood forest with sugar maple (*Acer saccharum*), American beech (*Fagus americana*), paper birch (*Betula papyrifera*) and yellow birch (*Betula alleghaniensis*) dominating. Common plants observed in wetlands include red maple (Acer rubrum), balsam fir, yellow birch, spotted touch-me-not (*Impatiens capensis*), nodding sedge (*Carex gynandra*), sensitive ferns (*Onoclea sensibilis*), northeastern mannagrass (*Glyceria melicaria*), steeplebush (*Spiraea tomentosa*), broad-leaved cattail (*Typha latifolia*), bulrushes (*Scirpus* spp.) and willows (*Salix* spp.). Legacy logging roads are prominent within the Project area, often influencing hydrology and vegetation via soil compaction and erosional rills.

Representative photographs of the land uses, natural resources and communities/habitats in the Project area are included in Appendix 7-1.

7.B Agency Consultation

7.B.1 U.S. Fish and Wildlife Service

Consultation with the U.S. Fish and Wildlife Service (USFWS) conducted through the IPaC system on July 25, 2021 identified three threatened, endangered or candidate species that may potentially occur in the Project Area (see Appendix 7-2). These species were the Canada Lynx (*Lynx canadensis,* Threatened), the Northern Long-eared Bat (*Myotis septendtrionalis*, Threatened) and the Atlantic Salmon (*Salmo salar*, Endangered). The Project area does not contain any Critical Habitats under the jurisdiction of USFWS. Coordination with USFWS and Section 7 consultation under the ESA regarding Northern Long-eared Bat and Canada lynx and associated habitat will occur as part of the U.S. Corps of Engineers (USACE) permitting process, which is required for proposed impacts to waters of the United States associated with the Project.

7.B.2 Maine Department of Inland Fisheries and Wildlife

On November 3, 2020, the Maine Department of Inland Fisheries and Wildlife (MDIFW) provided information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the Project (see Appendix 7-2). The information provided is summarized below.

7.B.2.1 Endangered, Threatened and Special Concern Species

Bat Species

Based on consultation with MDIFW, of the eight species of bats that occur in Maine, the three Myotis species are protected under MESA and are afforded special protection under 12 M.R.S §12801 - §12810. The three Myotis species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species could occur within the Project area during migration and/or the breeding season. However, MDIFW does not anticipate significant impacts to any of the bat species as a result of the Project.

Bicknell's Thrush

Based on information received from MDIFW, Bicknell's thrush, a bird that is a state species of special concern, may occur in the Project area. Bicknell's thrush can be found in sub-alpine forests usually dominated by balsam fir and red spruce at elevations >2,700 feet asl, that typically have a history of disturbance resulting in a stunted dense understory. MDIFW recommends that suitable Bicknell's thrush habitat be avoided. Furthermore, to minimize potential impacts to breeding Bicknell's thrush MDIFW recommends that no clearing or construction activity adjacent to these types of habitats occur from May 1 through July 31.

Roaring Brook Mayfly

Based on information received from MDIFW, the Roaring Brook mayfly, a state threatened invertebrate species, may occur in the Project vicinity. This species can occur in high elevation, headwater streams draining off forested (hardwood or mixed) slopes at or above 1,000 feet (including unmapped streams) within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt. Katahdin to western border with New Hampshire and Quebec). Any instream work in perennial or intermittent streams, or clearing in the vicinity of these streams, has the potential to impact this species. MDIFW recommends that no development or permanent land use conversion occur within the 250-foot riparian buffer of any streams containing this species.

Northern Spring Salamander

Based on information received from MDIFW, northern spring salamanders, a state Species of Special Concern, may also occur in the Project area. The MDIFW stated: "Any instream work or work adjacent to high elevation headwater streams in this area, including both unmapped perennial and intermittent streams, has the potential to impact this species". They are also found in larger third order streams and rivers with suitable substrate (large cobble and/or gravel bars) within the documented range of primarily the western Maine mountains north and east into mountains of central Penobscot County. MDIFW recommends that no development or permanent land use conversion occur within the 250-foot riparian buffer of any streams containing this species.

7.B.2.2 Significant Wildlife Habitat

MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the Project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. In addition, MDIFW stated that there are no mapped Essential Habitats that would be directly affected by the Project.

However, as a comprehensive statewide inventory for Significant Vernal Pools has not been completed, MDIFW recommended that surveys for vernal pools be conducted within the project

boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. They stated that these surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant.

7.B.2.3 Fisheries Habitat

MDIFW recommended that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams that support coldwater fisheries is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, MDIFW generally recommends that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fish and fisheries habitat. In addition, MDIFW recommends that any necessary instream work occur between July 15 and October 1.

7.B.3 Additional Consultation

The Applicant held multiple additional consultation meetings in order to better understand potential siting concerns, including environmental constraints. An introductory meeting was held with the Maine Department of Environmental Protection (MDEP), MDIFW, and USACE on

November 12, 2020. Two months later, a working meeting was held with the MDEP to discuss strategies for the avoidance and minimization of key habitat and wetlands. The Site Location of Development Act (Site Law) pre-application meeting was held on March 26, 2021. A consultation call with MDIFW was held on April 5, 2021 to obtain input on addressing impacts related to Bicknell's thrush, Roaring Brook mayfly and Northern spring salamander. The Natural Resources Protection Act (NRPA) pre-application meeting was held on April 7, 2021. The Public Information Meeting was held on July 29, 2021. In addition, a site visit was completed with the Maine Natural Areas Program (MNAP) and Trevor Persons, a consultant recommended by MDIFW, to review sub-alpine fir habitat as well as habitat for Bicknell's thrush, Roaring Brook mayfly and Northern spring salamander. Additionally, informal email and phone communications were completed with state and federal resource agencies.

7.C Data Collection

7.C.1 Wetlands Delineations

VHB ecologists conducted initial wetland delineation field work within the survey area during the spring of 2020 and then revisited the site in July and October of this same year. VHB delineated the boundary of wetlands in accordance with the Army Corps of Engineers 1987 Wetland Delineation Manual (1987 Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (Regional Supplement). All wetland delineations were conducted using Routine Determination Methods, which require that a wetland must contain a dominance of hydrophytic vegetation, hydric soils, and evidence of hydrology to be considered a wetland. Wetland boundaries were located and demarcated with flagging and flag locations were recorded in the field using a Trimble® GPS unit capable of sub meter accuracy, post processed, and transferred and incorporated onto project mapping.

VHB completed one wetland and one upland Regional Supplement data form along the boundary of each identified wetland system to document the boundary. Additional field notes were also

taken to record the classification of each wetland in accordance with the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin Classification), general site characteristics, unique qualities observed during the site assessment, and other considerations relevant to support the investigation findings. Wetlands functions and values were assessed with reference to the U.S. Army Corps of Engineers New England District's Highway Methodology Workbook Supplement: Wetland Functions and Values - A Descriptive Approach. VHB took representative photographs of each wetland, drew labeled field sketches of the wetland boundary on an aerial photograph-based map, and recorded notes on the flagging sequence for each wetland.

Wetlands of Special Significance (WOSS)

Following delineations, VHB evaluated if wetlands met the Wetlands of Special Significance (WOSS) criteria. Wetlands of Special Significance are defined in NRPA Chapter 310: Wetlands and Waterbodies Protection Section 4. According to Chapter 310, WOSS include all coastal wetlands and great ponds, and freshwater wetlands that exhibit one or more of the following characteristics:

> "(1) Critically imperiled or imperiled community. The freshwater wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the Natural Areas Program.
>
> (2) Significant wildlife habitat. The freshwater wetland contains significant wildlife habitat as defined by 38 M.R.S.A. § 480-B (10).
>
> (3) Location near coastal wetland. The freshwater wetland area is located within 250 feet of a coastal wetland.
>
> (4) Location near GPA great pond. The freshwater wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
>
> (5) Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial ponds or impoundment.

(6) Wetlands subject to flooding. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency or other site-specific information.

(7) Peatlands. The freshwater wetland is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance.

(8) River, stream or brook. The freshwater wetland area is located within 25 feet of a river, stream or brook."

7.C.2 Waterbodies

VHB also evaluated the presence or absence of waterbodies within the project area. Streams were evaluated in accordance with the State of Maine Natural Resources Protection Act criteria and definitions. A river, stream or brook is defined by the NRPA in Title 38 M.R.S.A. §§ 480-A, as a channel between defined banks. The channel is created by surface water and has two or more of the following five characteristics:

- The channel is depicted as a solid or broken line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map, or 15-minute series topographic map if the 7.5 minutes series is unavailable;
- The channel contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years;
- The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water;
- The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present within the stream bed;
- The channel contains aquatic vegetation and is essentially devoid of upland vegetation.

The Army Corps Maine General Permit does not include a definition of river, stream or brook. However, the ordinary highwater mark (OHWM or OHW) of watercourses was identified

following USACE's Regulatory Guidance Letter No. 05-05 Ordinary High Water Mark Identification (2005).

7.C.3 Vernal Pools

A full vernal pool survey was conducted by VHB scientists during the spring of 2020 to confirm and identify vernal pool features within the survey area, including those regulated by the USACE and the MDEP. The MDEP defines "vernal pools, also referred to as seasonal forested pools, as natural temporary to semi-permanent bodies of water that occur in shallow depressions that typically fill with water during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and have no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus sp*.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition."

The MDEP further differentiates vernal pools as 'significant' (regulated under NRPA) and 'non-significant' (not regulated under NRPA). Significant vernal pool habitat consists of a vernal pool depression and that portion of the critical terrestrial habitat within 250 feet of the spring or fall high water mark of the depression. Whether a vernal pool is a significant vernal pool is determined by the number and type of pool-breeding amphibian egg masses in a pool, the presence of fairy shrimp, or use by certain rare, threatened, or endangered species that commonly requires a vernal pool to complete a critical portion of its life-history as specified in NRPA Chapter 335 Significant Wildlife Habitat Rules Section 9(B).

7.C.4 Wildlife Surveys

A habitat study was conducted was conducted by Trevor Persons in coordination with MDIFW to determine the extent of potential habitat within the Project area for Roaring Brook Mayfly,

Bicknell's Thrush, and Northern Spring Salamander. This study was completed on November 20, 2020 and Kristen Puryear from the Maine Natural Areas Program was also present.

7.D Survey Results

Mapping of identified habitat is provided in Appendix 7-3. The following is a discussion of the specific resources identified.

7.D.1 Wetlands

In total, VHB delineated 103 wetlands, with the average size being 0.16-acres. Palustrine Emergent (PEM) and Palustrine Forested (PFO) were present within the Project area. In general, wetlands within the Project area are groundwater-driven, often occurring at the topography breaks where water flowing through underfoot boulders is forced to the surface and creates open canopy seeps with organic soils. Whether due to the hydrologic impacts of the logging roads, or the coincidental placement of the roads where topography is least steep, many of the legacy logging roads display wetland parameters. For additional technical details pertaining to each delineated wetland, refer to the Natural Resources Protection Act (NRPA) permit application accompanying this submittal.

PFO Wetlands

Forested wetlands are characterized by woody vegetation that is at least six meters tall (Cowardin et al. 1979). VHB delineated 37 PFO wetlands within the Project area which include a mix of needle-leaved evergreen and broad-leaved deciduous vegetation. Forested wetlands make approximately 11.3 acres (2%) of the Project area. Common tree species included balsam fir, green ash (*Fraxinus pennsylvanica*), yellow birch and red maple. Herbaceous species common to forested wetlands include sensitive fern, spotted touch-me-not, nodding sedge and eastern rough sedge (*Carex scabrata*). Often forested wetlands have an open canopy towards the middle, with tree species dominating wetland edges and overhanging the wetland. PFO wetland hydrology is groundwater-driven and permanently saturated soils are common.

PEM Wetlands

Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et al. 1979). VHB delineated 66 emergent wetlands covering approximately 5.8 acres (1%) within the Project area. Common species include sensitive fern, eastern rough sedge, nodding sedge, woolgrass (*Scirpus cyperinus*), green bulrush (*Scirpus atrovirens*), dwarf red blackberry *(Rubus pubescens*), interrupted fern (*Osmunda claytoniana*), broad-leaved cattail, bluejoint grass (*Calamagrostis canadensis*) and northeastern manna grass. Often PEMs occur in recently logged areas that were likely PFOs prior to harvesting. As such, delineated PEMs often have woody vegetation that was not tall or dominant enough to qualify as PFO or Palustrine Scrub-shrub. These species included willows, steeplebush, balsam fir, yellow birch and green ash, among others. Delineated PEM wetlands commonly have organic-matter rich soil, often enough to qualify as a Histosol. Groundwater discharge in the form of open-canopy seeps plays a large role in creating wetland areas on the sloped terrain.

Wetlands of Statewide Significance

Of the 103 wetland areas delineated, portions of 38 wetlands meet the NRPA WOSS criteria based on being located within 25 feet of a delineated stream (see Criteria 8 above). No other WOSS criteria were met by any wetland within the Project area. Those portions of these wetlands located within 25 feet of a stream are considered WOSS areas. WOSS areas are displayed on the Natural Resources Map (Appendix 7-3) with the associated 75-foot area adjacent to the Protected Natural Resource.

7.D.2 Waterbodies

VHB ecologists conducted stream delineation fieldwork within the Study Area between June and July 2020. During this effort, 34 streams were delineated within the Study Area, primarily based on those meeting NRPA definition criteria (b) and (c) as listed above. Of the 34 delineated streams, there are 7 perennial reaches and 27 intermittent reaches. These 34 streams are displayed on the Natural Resources Map with associated 75-foot buffer for Protected Natural Resources. The Study Area also contains several ephemeral channels, often associated with legacy logging roads, which,

due to ephemeral flow regime and/or lack of a defined mineral channel, are not believed to be federal or state jurisdictional. These features were therefore not included on the Natural Resources Map. For additional technical details pertaining to each delineated waterbody, refer to the NRPA permit application accompanying this submittal.

7.D.3 Vernal Pools

During the 2020 vernal pool (VP) assessment, VHB ecologists documented 6 VPs within the Study Area but based on field observations. Observed VPs are small and associated with human-created depressions such as ditches and skidder ruts except for VP 2, which is in a potentially natural depression within a softwood swamp.

Based on the MDEP criteria, none of the VPs were found to be significant The Maine State VP Assessment Forms, site photographs and associated GIS shapefiles for all VPs were submitted to MDIFW on February 5, 2021. MDIFW provided a response letter on February 25, 2021 (Appendix 7-4) confirming the non-significant status of the six VPs because either: 1) the features do not meet the definition of a VP under the Significant wildlife habitat rules, 06-096 CMR 335(9) or 2) the VPs do not meet the biological standards for exceptional wildlife use of the significant wildlife habitat rules, 06-096 CMR 335(9)(B).Therefore, activities within 250 feet of the pools are not regulated under NRPA unless there are other protected natural resources nearby such as streams or freshwater wetlands. The complete correspondence with MDIFW regarding VPs is provided in the NRPA application accompanying this submission.

7.D.4 Bicknell's Thrush

The habitat survey for the Bicknell's thrush determined that this species is likely occur within the area previously mapped as Subalpine Fir Forest that is over 2700' asl. The results of the study are described in more detail in Appendix 7-5. Potential Bicknell's Thrush habitat identified by this study is displayed on the resource maps in Appendix 7-3

7.D.5 Roaring Brook Mayfly

The habitat study for the Roaring Brook Mayfly determined that several small perennial streams at middle and low elevations within the Project area could harbor Roaring Brook Mayfly. The results of the study are described in more detail in Appendix 7-5. The resource maps in Appendix 7-3 depict these areas as well as the 250-foot buffer recommended by MDIFW.

7.D.6 Northern Spring Salamander

The habitat study for the Northern Spring Salamander determined that several small perennial streams at middle and low elevations could harbor spring salamander (the results of the study are described in more detail in Attachment 9). The results of the study are described in more detail in Appendix 7-5. The resource maps in Appendix 7-3 depict these areas as well as the 250-foot buffer recommended by MDIFW.

7.E Impacts and Effects on Habitats and Associated Wildlife

7.E.1 General Habitat and Wildlife

The Applicant has reduced direct and indirect impacts on wildlife and wildlife habitats to the maximum extent practicable through avoidance, minimization and a thorough review of potential alternatives. The construction and maintenance of the proposed Project will have both permanent and temporary effects on the existing habitats and associated ecological communities. Permanent effects result from construction of roads and other permanent structures, as well as the associated clearing of forested areas for installation of the trail network. Temporary effects may include minor changes in existing habitats due to temporary ground disturbance during construction and the short-term effect of ongoing construction activity on wildlife species that may cause them to leave the immediate area until construction activities cease.

7.E.1.1 Permanent Vegetation and Habitat Impacts

The construction of ski trails, structures and roads will result in limit of disturbance of approximately 290 acres, of which approximately 40 acres is associated with the proposed residential developments. Direct permanent impacts from construction of trails, structures and roads have been minimized to the extent practicable. The existing network of active and inactive logging roads in the area have been used as much as possible for access to the project area ridgelines. Existing roads used for the project will be upgraded to pass the large trucks needed for construction but upgrading activities pose much less of an impact than construction of new roads. In general, most existing roads will simply need re-grading. Some culvert and bridge replacements will be made as well. In all areas where wetlands occur on one side of an existing road but not on the other and where road widening or vegetation is needed, those activities will be undertaken on the non-wetland side of the road.

To construct and maintain the proposed Project will require clearing approximately 238 acres of forested upland. Much of this disturbance is associated with the proposed new ski trails. Ski trail areas are typically mowed once annually and so these areas will be maintained as a meadow cover type. It is expected that several grass species (*Gramineae*) will dominate with some herbaceous and small woody plants such as meadowsweet, alder, viburnum species, asters (*Aster* spp.), raspberries and blackberries (*Rubus* spp.) also being present. This long-term conversion of forested cover types to shrub or herbaceous types can offer certain benefits to some wildlife species, including the increase of succulent grasses and flowering plants for grazing animals, the production of more fruit for wildlife consumption from berry producing species, and the direct benefits of food, cover and nesting sites for species dependent on early successional habitats.

Periodically mowed and maintained fields can provide habitat for early successional species such as the chestnut-sided warbler (*Dendroica pensylvanica*), yellow warbler, common yellowthroat, alder flycatcher (*Empidonax alnorum*), eastern kingbird (*Tyrannus tyrannus*), song sparrow, and indigo bunting (*Passerina cyanea*). Wide-ranging habitat-generalist species such as coyote and

red fox (*Vulpes vulpes*) may use these areas as travel corridors. They may also be used for foraging by game species such as white-tailed deer, moose, and wild turkey (*Meleagris gallopavo)*.

Habitat fragmentation is the division of habitat into smaller and smaller patches that become more and more isolated from each other and from larger forested areas. These smaller patches are believed to be of lower quality, consequently providing less suitable habitat for native wildlife populations. The Project is located in an area which is dominated by ski-related activities and regular forest management activities. It is fully anticipated that local wildlife populations will adapt and respond to this conversion of habitat types much as they already do to the natural occurrence of blowdowns and forest management activities in the area.

7.E.1.1.1 Mammalian Impacts

It is anticipated that mammals in the general area will not be adversely affected by the proposed Project. With initial clearing of the Project area and subsequent construction, larger mammals will likely be displaced to the adjacent remaining forest habitats.

The following benefits will likely occur as a result of constructing the proposed Project:

- Populations of most small mammals will increase, likely benefiting predators and the upper food chain;
- Long-term changes in vegetation within forested upland and wetland habitat converted to upland fields and emergent wetlands, which will increase graminoid food resources, may benefit deer, turkeys, woodchucks, and hares; and

7.E.1.1.2 Avian Impacts

The greatest impacts to bird populations from the Project will result from the limited permanent conversion of areas of forested land to impervious surfaces and open land. The effective loss of forest diminishes the available habitat for tree-dependent species. Cavity-nesters such as hairy

woodpecker, downy woodpecker, pileated woodpecker, black-capped chickadee, red-breasted nuthatch, and brown creeper will likely be impacted on a local scale; although the cover type/habitat is suitable to support these species, it's not known that all these species are currently inhabiting the site. Populations of these species may be displaced to forests adjacent to the Project area where suitable nest sites and areas for foraging occur. As stated earlier, the area surrounding the Project contains significant areas of forest habitat, therefore the impact of this displacement should be minimal. In addition, these species are among the most common native residents, with large healthy populations.

Other species dependent on suitable cover, although not cavity-nesters, will also be displaced. Red-eyed vireo, ovenbird, rose-breasted grosbeak (*Pheucticus ludovicianus*), scarlet tanager (*Piranga olivacea*), redstart, chestnut-sided warbler, and other migrant species which are forest nesters will move to adjacent habitat.

Many bird species will benefit from the increased open area and from the creation of edge habitats, especially in upland areas. Among these areas may be white-throated sparrow, chestnut-sided warbler, redstart, chipping sparrow (*Spizella passerine*), gray catbird (*Dumetella carolinensis*), and purple finch (*Carpodacus purpureus*). These species nest in brushy areas that will occur along the edges of the facility. Wetland dependent songbirds, including common yellowthroat, red-winged blackbird, song sparrow, and yellow-rumped warbler (*Dendroica coronata*) will also benefit from cover created in emergent wetland areas. Their populations may increase due to the creation of the ecotone (i.e., edge) habitat.

Recent studies of northeastern raptors have shown that habitat diversity is well tolerated by most species. Brooks (1989) concludes that "a landscape of interspersed forest and open-habitat types would best support the majority of raptor species." In this study of the amount of ecotone habitat in the northeast, he also concludes that Maine "has the least diverse landscape of the eight states for which data are available." Forest openings are used for hunting and foraging and may provide greater prey base than contiguous forests.

Among raptors most likely to benefit from increased opening of the forest is the broad-winged hawk (Titus and Mosher 1981), already the most abundant raptor in the Project area. Kestrels, also abundant throughout, will likely benefit from increased hunting opportunities, and may nest on the edge of the solar facility. Other forest-dwelling raptors including red-tailed hawks, great horned owl, and long-eared owl should also benefit from increased diversity. One species, the northern harrier, is a ground nester limited to open wetland areas and may benefit from increased habitat.

Only northern goshawks, red-shouldered hawks and barred owls have been identified as raptors that require large, remote forest tracts (Falk and Stauffer 1988; Speiser and Bosakowski 1989). It is anticipated that the Project will not have any significant negative effects on these particular species, because a significant portion of the surrounding lands are forested and would provide suitable habitat for these particular species. The removal of trees within the Project site may decrease nesting opportunities for raptors, although no nest sites were observed during preliminary fieldwork.

7.E.1.2 Temporary Vegetation and Habitat Effects

Construction activities will be conducted in accordance with an Erosion and Sedimentation Control Plan (as described in Section 14 Basic Standards). The proper implementation of erosion and sedimentation control measures will minimize the potential for erosion and sedimentation of wetlands and waterbodies and minimize potential temporary impacts to vegetation and wildlife habitat from construction of the Project.

7.E.2 Wetlands

The construction and operation of the facility will impact 71 wetlands. Approximately 164,408 square feet (3.77 acres) of fill will be required. Of these impacts, twelve of the impacted wetlands are WOSS and within these there will be approximately 4,143 square feet (0.09 acres) of fill. Some

of this fill is related to cutting and grubbing forested wetland to allow for the burial of utilities and conversion of a forested wetland to a meadow for a ski trail.

Impacts to forested wetlands may be somewhat greater than to other wetlands, as the loss of tree canopy may locally alter the plant communities and affect wildlife. For example, many year-round native bird species are most abundant in coniferous swamps during winter. However, because the proposed Project is in a surrounding area that contains significant forested habitat, much of which is undeveloped, it is anticipated that areas cleared for the Project will have relatively minimal impact to forest interior species.

Impacts to emergent wetlands will be less than forested wetlands, because the vegetation is already low and need not be cut during maintenance. In areas where vegetation is cut during clearing, for example tall alders, the light and water regimes are such that regeneration will typically consist of species identical with those already growing. Because the hydrology of the majority of wetlands within the Project will be minimally altered, no permanent impact to the principal functions such as groundwater discharge or sediment stabilization are expected.

7.E.3 Waterbodies

There are 32 stream crossing associated with this Project. Construction activities will be conducted in accordance with an Erosion and Sedimentation Control Plan (as described in Section 14 Basic Standards). The proper implementation of erosion and sedimentation control measures will minimize the potential for erosion and sedimentation of wetlands and waterbodies and minimize potential temporary impacts to vegetation and wildlife habitat from construction of the Project. Of the 32 streams within the Project site, only 10 are perennial streams. The majority of Project stream crossings will involve intermittent streams, which will afford the Project the opportunity to construct many crossings during periods of little to no flow. Note that the Project proposes to remove 13 existing pipe culverts, many of them perched culverts in perennial streams, and restore the existing stream channel in the area of each (refer to Section 7.E.4.3 below).

7.E.4 Endangered, Threatened and Special Concern Species

7.E.4.1 Bat Species

Based on consultation with MDIFW, of the eight species of bats that occur in Maine, the three Myotis species are protected under MESA and are afforded special protection under 12 M.R.S §12801 - §12810. However, MDIFW does not anticipate significant impacts to any of the bat species as a result of the Project.

The Project is generally located within a region of Maine with widespread forested cover that will remain following the Project's construction. The clearing and vegetation removal required for the Project represents a very small fraction of the tree cover in the region. The removal of trees required for the Project will not represent a significant change in the overall forested habitat available to bats in the Project Area or region. Based on agency consultation, there is no known bat hibernacula within one quarter mile of the Project area and no known roost trees within (at least) 150 feet of any proposed Project area. There are also no exposed rocky features that could serve as overwinter habitat for the bat species of concern. Additionally, as the proposed clearing will not happen in June or July, the Project is not anticipated to have impacts on bat species.

7.E.4.2 Bicknell's Thrush

Based on information received from MDIFW, Bicknell's thrush, a bird that is a state species of special concern, may occur in the Project area. The Bicknell's thrush is an extreme habitat specialist, requiring sub-alpine forests dominated by balsam fir and red spruce at elevations around 2,700-feet that typically have a history of natural disturbance resulting in stunted dense understory (MDIFW consultation). The Biological Species Report completed by the USFWS (2017) noted that Bicknell's thrush has been found in high densities in newly regenerating clear-cuts and in constantly disturbed locations, including edges of human-created openings such as ski trails.

MDIFW provided one known habitat occurrence which intersects with the Project but extends for a much greater extent. The total area of this breeding habitat is approximately 20,824 acres based

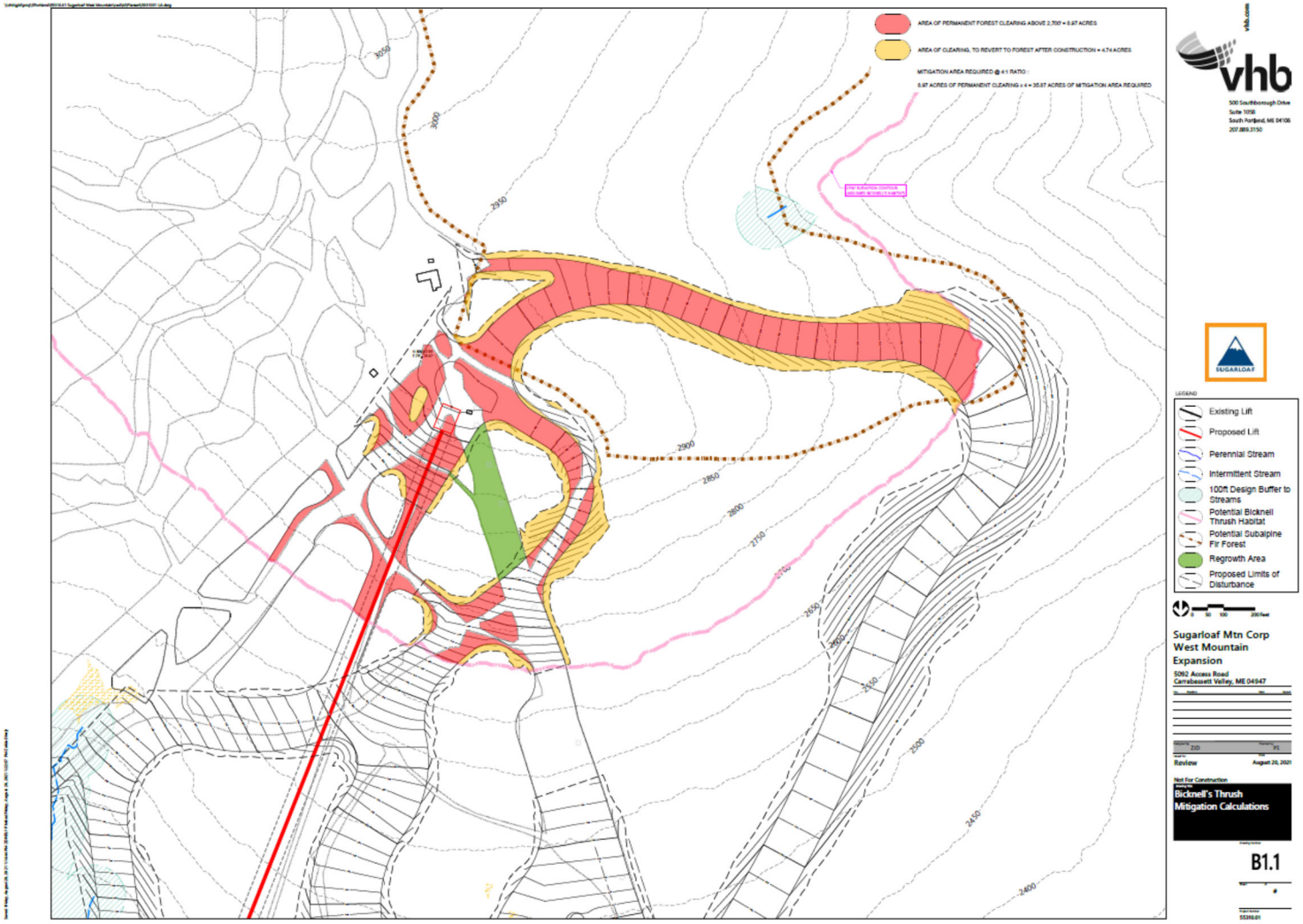
on the MDIFW-mapped habitat located at greater than 2,700 feet elevations and is associated with the high elevation sub-alpine forest on Sugarloaf Mountain. While the total area disturbed during construction would be 13.4 acres, some of this area would be allowed to grow back. The area to be permanently disturbed by the Project (approximately 8.97 acres) would be small relative to the amount of habitat that would remain available at the site. This disturbance would occur within a corner of the mapped polygon, so there would be no forest fragmentation. Additionally, Bicknell's thrush is known to breed in disturbed sites.

As shown in Figure 7-1, the disturbance in these upper elevations would be limited to the construction of ski trails. While the area of clearing will initially extend beyond the location of the proposed new ski trails, a certain portion of this disturbance will be allowed to revegetate. There is also an existing trail shown in green that will, for the foreseeable future, be allowed to revegetate but the Applicant is not including this segment in their mitigation proposal.

While the minimum desired ski trail width is typically 125 feet, within the Bicknell's Thrush zone the Project sought to minimize impacts by reducing typical trail width to 100 feet, except at intersections and turns where wider distances are needed for safety purposes. The USFWS Biological Species Report concluded that, while the development of ski areas and other disturbances may have resulted in the loss and fragmentation of habitat, the "species does show some ability to adapt and persist in the vicinity of ski slopes". It cited a study by the Vermont Institute of Science (Rimmer *et al*., 2004) that analyzed species use at two ski areas, Stowe Mountain Resort and Stratton Mountain, and determined that "few significant differences existed for various population and reproductive parameters between areas developed for ski areas and natural forests on each mountain." While this study found that adult thrushes avoided trail crossings wider than 50 meters (164 feet), a similar study by Glennon and Karasin (2004) found no such avoidance pattern. The USFWS concluded that, while there may be an immediate loss of habitat from the construction of a ski trail, the species "may be able to adapt and use most of the remaining habitat without long-term consequences, provided consideration is taken to avoid fragmenting habitat to a degree that may inhibit the movement of adult Bicknell's thrushes." Based

on the best available information, the proposed ski trails will not represent fragmentation of the species' habitat.

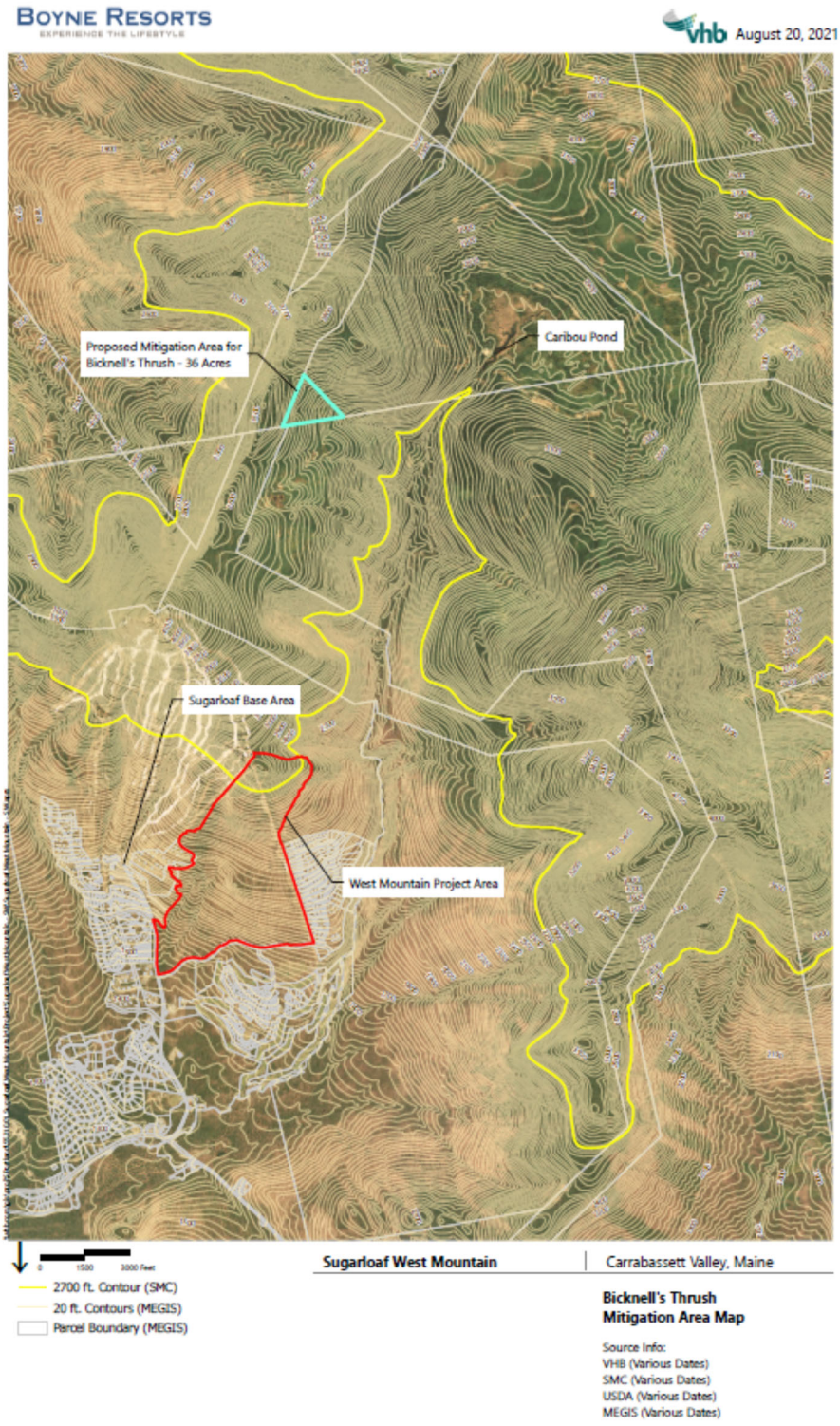
Figure 7-1: Area of Disturbance within Bicknell's Thrush Habitat



The Applicant has designed the Project so as to avoid and minimize impacts to the extent practical, given the Project's goals and existing conditions. This activity included the removal of a trail within the species' habitat that had been proposed during initial consultation meetings. To avoid impacts during the breeding season, the Applicant will adhere to MDIFW recommendations that no clearing or construction activity adjacent to these types of habitats occur from May 1 through July 31.

Based on consultation with MDIFW, the Applicant is also proposing to place a portion of their existing land, which is located at greater than 2,700 feet in elevation, into a permanent easement. The Applicant has proposed a section of land located to the south of the Project (see Figure 7-2) which occupies an area of approximately 36 acres which has experienced timber management activities in the past. The Applicant is currently consulting with state wildlife and botanical agencies to determine the attributes of a suitable mitigation area.

Figure 7-2: Originally Proposed Conservation Easement for Bicknell's Thrush Mitigation



7.E.4.3 Roaring Brook Mayfly

Based on information received from MDIFW, the Roaring Brook mayfly, a state threatened invertebrate species, may occur in the Project vicinity. This species can occur in high elevation, headwater streams draining off forested (hardwood or mixed) slopes at or above 1,000 feet (including unmapped streams) within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt. Katahdin to western border with New Hampshire and Quebec). A habitat study for the Roaring Mayfly determined that several small perennial streams at middle and low elevations within the Project area could harbor Roaring Brook mayfly but no presence surveys were completed.

The Applicant has avoided and minimized impacts within 250 feet of the streams which may represent Roaring Brook mayfly habitat, including the number of stream crossings. The Project would result in clearing of only approximately 17% of the buffer width within 50 feet of these streams. The Project will also result in clearing of 42% of the zone that lies within 50 to 250 feet of these streams. This level of disturbance is consistent with MDIFW guidance for timber harvesting, which calls for maintaining a 60-70% canopy cover in this region. It should be noted that a significant portion of the disturbance within the 250' buffer involves new ski trails, which are mowed only once annually and feature dense meadow vegetation and similar runoff characteristics as forested land cover.

The Applicant is proposing to install 14 open bottom arches and 2 open bottom box culvert crossings, of which six are located at stream channels deemed to be suitable habitat for Roaring Brook mayfly and Northern Spring salamander. For each crossing within these channels, Table 7-1 below provides the span divided by the bankfull width value, which the MDIFW recommends be at least 1.2, and the openness ratio, which the MDIFW recommends be at least 0.60 meters. All of the structures will be open bottom, thereby allowing for connectivity. For crossing locations listed below, refer to the sheet series CG-2.0 – CG-2.13 of the plan set.

Table 7-1: Bankfull and Openness Ratio for Crossings within Habitat

Stream Crossing Identifier	Span / Bankfull Width	Openness Ratio (m)
STRM-01	1.33	0.86
STRM-02	1.22	0.40
STRM-03	1.27	0.05
STRM-04	1.29	0.08
STRM-09*	1.33	0.23
STRM-10	1.33	0.09

*Crossing #9 involves the removal of an existing perched pipe culvert and replacement with open bottom arch crossing

Achieving the recommended openness ratio of 0.6 meters is challenging for 5 of the 6 crossings listed above. This is due to the required width of the ski trails at the crossing location, thus resulting in longer culvert length. Crossings 2 through 4 are located where trails collect and concentrate skier traffic toward the bottom terminal of the new lift. These areas of significant traffic from uphill trails, new parking lots, and skier services buildings require a minimum trail with of 125 feet to safely accommodate skier volumes. Crossing 10 has been designed to cross the stream in as perpendicular a manner as possible while still providing safe skier movements. In order to minimize the crossing width, the trail width at this location has been reduced by 30 feet when compared with the original design.

For mitigation, the Applicant is proposing to voluntarily remove four existing perched culverts within the mayfly/salamander zone and replace one perched culvert with an open-bottom arch. These modifications are expected to restore habitat availably for approximately 13,973 linear feet of streams within the Project area. Please refer to accompanying Mitigation Exhibit for Roaring Brook Mayfly/ Northern Spring Salamander included as Appendix 7-6. This approach to expanding suitable habitat accessibility as a means of mitigation was supported by MDIFW and DEP during prior agency outreach. Given the proposed width of stream crossings with potential habitat is estimated at 990 feet, the Applicant is providing a 14:1 mitigation ratio.

In addition to the improvements to aquatic organism habitat accessibility described above, the Project proposes to provide new treatment of existing untreated stormwater runoff from approximately 3.1 acres of existing gravel parking (Lot E) located directly within the habitat of a perennial mayfly/salamander stream. This runoff currently discharges directly to the stream via open drainage channels. Using the Simple Method (Scheuler, 1987) to compute sediment loading from the existing gravel parking lot and assuming 80% Total Suspended Solids removal achieved with the proposed wet pond treatment practice, this approach is expected to result in an estimate 30,000 lbs/year reduction in sediment loading originating from Lot E. This significant sediment reduction will improve stream bottom habitat for aquatic organism such as Roaring Brook Mayfly/ Northern Spring Salamander. Refer to Section 12-Stormwater Management for supporting sediment calculations.

No construction activities, use of machinery, or other disturbances will occur within the stream channel except as necessary to place stream crossing structures. The Applicant will implement its erosion and sedimentation control measures to prevent sedimentation into waterbodies and maintain the existing water quality. Only hand cutting will occur within 25 feet of the stream channel. The use of herbicides or pesticides will be avoided within the 250-foot riparian management zone and only after consultation with the MDIFW.

7.E.4.4 Northern Spring Salamander

Based on information received from MDIFW, northern spring salamanders, a state Species of Special Concern, may also occur in the Project area. A habitat study for the Northern Spring salamander determined that several small perennial streams at middle and low elevations could harbor this species.

The Project is not expected to affect the Northern Spring Salamanders. Consistent with the protections for the Roaring Brook mayfly habitat, the Applicant has sited structures to avoid rivers and streams, as well as their associated buffer areas. Crossings have been avoided to the extent practical but when necessary will largely adhere to available guidelines. The removal and

replacement of existing perched culverts is expected to restore habitat availability for approximately 13,973 linear feet of streams within the Project area. This approach to expanding suitable habitat was supported by MDIFW and DEP during prior agency outreach

The Applicant will implement its erosion and sedimentation control measures to prevent sedimentation into waterbodies and maintain the existing water quality. The protection measures proposed for the Roaring Brook mayfly habitat are expected to also apply to the Northern Spring salamander.

7.E.5 Significant Wildlife Habitat

MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the Project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. In addition, MDIFW stated that there are no mapped Essential Habitats that would be directly affected by the Project.

7.E.5.1 Vernal Pools

Based on the MDEP criteria, none of the vernal pools (VPs) found during the surveys completed within the Project area were found to be significant Therefore, activities within 250 feet of the pools are not regulated under Natural Resources Protection Act unless there are other protected natural resources nearby such as streams or freshwater wetlands.

7.E.6 Fisheries Habitat

Based on outreach to MDIFW, the only fishery concern for the Project area is potential impacts within stream buffers. The protection measures discussed related to the Roaring Brook mayfly in

terms of vegetative buffers, crossing design, and enhanced habitat connectivity should be applicable for fisheries resources as well. In addition, the Applicant will limit any necessary instream work so that it only occurs between July 15 and October 1.

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APPENDIX 7-1
REPRESENTATIVE PHOTOS OF PROJECT AREA

Figure 1: View to the north from the top of existing West Mountain Lift.

Boyne Resorts
2020 Natural Resource Assessments
Representative Site Photographs

PROJECT NUMBER
55310.00

Sugarloaf West Mountain

Carrabassett Valley, Maine

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 1

DESCRIPTION

Representative photograph of recently logged, regenerating forest at mid elevations in the western Study Area. *Rubus sps.* dominate upland legacy logging roads.

NO. 2

DESCRIPTION

Representative photograph of regenerating upland forest with logging history. This photo shows one of the many regenerating logging roads that exist within the Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 3

DESCRIPTION

Representative photograph of upland striped maple-dominated young forest at mid elevations within Study Area.

NO. 4

DESCRIPTION

Representative photograph of high elevation spruce-fir-birch upland forest.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 5

DESCRIPTION

Representative photograph of low elevation upland hardwood forests.

NO. 6

DESCRIPTION

Representative photograph of upland ski trail.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 7

DESCRIPTION

Representative photograph of maintained glades at mid elevations on West Mountain.

NO. 8

DESCRIPTION

Representative photograph of steep, bouldery slopes at mid elevations of West Mountain.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 9

DESCRIPTION

Bridge on West Mountain Road in northeast corner of the Study Area. Perennial Stream 2020-TOB-1 flows under this bridge.

NO. 10

DESCRIPTION

Wetland 2020-115. Seepage from hillslope to ditch adjacent to parking lot in eastern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 11

DESCRIPTION

Wetland 2020-5 adjacent to the upper crossroad in middle of Study Area. Representative of naturalizing wetland skid road.

NO. 12

DESCRIPTION

Wetland 2020-11 in center of Study Area. Representative of seepage-fed, graminoid-dominated emergent wetlands.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 13

DESCRIPTION

Wetland 2020-108 in eastern Study area. Representative of scrub-shrub seepage-fed wetlands at lower elevations on West Mountain.

NO. 14

DESCRIPTION

Wetland 2020-6 is the highest elevation delineated wetland. Representative of upper elevation seepage-fed wetlands.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 15

DESCRIPTION

Wetland 2020-25 in northeast portion of Study Area. Representative of softwood swamps on West Mountain.

NO. 16

DESCRIPTION

Wetland 2020-31: emergent seepage slope adjacent to West Mountain Road in northern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 17

DESCRIPTION

Understory of Wetland 2020-35. Large palustrine forested wetland in center of Study Area.

NO. 18

DESCRIPTION

Wetland 2020-131 in western Study Area. Representative of open canopy, emergent seepage wetlands on West Mountain.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 19

DESCRIPTION

Close up of representative seepage-affinity wetland plants in Wetland 2020-129. Notice surface saturation and organic-rich soil.

NO. 20

DESCRIPTION

Wetland 2020-421 in northeastern Study Area.

NO. 21

DESCRIPTION

Emergent portion of Wetland 2020-1 in ski trail, southeastern Study Area.

NO. 22

DESCRIPTION

Up-gradient view of lower reaches of unnamed perennial Stream 2020-TOB-1 in northeastern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 23

DESCRIPTION

Down-gradient view of perennial Stream 2020-TOB-1 in reach between upper and lower cross roads.

NO. 24

DESCRIPTION

Down-gradient view of upper reaches of perennial Stream 2020-SC-1 (becomes Stream 2020-TOB-1 in its wider lower reaches) above the upper cross road.

NO. 25

DESCRIPTION

Up-gradient view of intermittent stream channel of Stream 2020-SC-311 in north-central Study Area.

NO. 26

DESCRIPTION

Intermittent channel of Stream 2020-SC-16 in eastern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 27

DESCRIPTION

Down-gradient view of perennial stream channel of Stream 2020-SC-210.

NO. 28

DESCRIPTION

Down-gradient view of ditched intermittent stream 2020-SC-201 at Western boundary of Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 29

DESCRIPTION

Down-gradient view of intermittent channel of Stream 2020-SC-202 in middle of Study Area.

NO. 30

DESCRIPTION

Intermittent Stream 2020-SC-200 in southern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 31

DESCRIPTION

Down-gradient view of ditched Stream 2020-SC-120 in eastern Study Area.

NO. 32

DESCRIPTION

Vernal Pool 1 in roadside excavation in eastern Study Area.

NO. 33

DESCRIPTION

Vernal Pool 3 in softwood swamp Wetland 2020-35.

NO. 34

DESCRIPTION

Representative photograph of mapped Bicknell's Thrush ("BITH", *Catharus bicknelli,* Species of Special Concern) habitat at highest elevations in Study Area where spruce and fir dominate.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 35

DESCRIPTION

Representative photograph of older spruce fir forest at higher elevations on West Mountain-Mapped BITH habitat.

NO. 36

DESCRIPTION

Representative photograph of potential spring salamander (*Gyrinophilus porphyriticus porphyriticus*; Species of Special Concern) and roaring brook mayfly (*Epeorus frisoni*; State Endangered) habitat. Habitat consists of perennial and intermittent streams hydrologically connected to the South Branch Carrabassett River.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 37

DESCRIPTION

Representative photograph of upper limits of potential roaring brook mayfly habitat consisting of intermittent stream.

APPENDIX 7-2

AGENCY CORRESPONDANCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

In Reply Refer To: July 26, 2021
Consultation Code: 05E1ME00-2021-SLI-0478
Event Code: 05E1ME00-2021-E-04591
Project Name: Sugarloaf West Mountain

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: http://www.fws.gov/mainefieldoffice/Project%20review4.html

Additionally, wind energy projects should follow the wind energy guidelines: http://www.fws.gov/windenergy/ for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm and at:

http://www.towerkill.com; and at:
http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
(207) 469-7300

Project Summary

Consultation Code: 05E1ME00-2021-SLI-0478
Event Code: 05E1ME00-2021-E-04591
Project Name: Sugarloaf West Mountain
Project Type: RECREATION CONSTRUCTION / MAINTENANCE
Project Description: Natural Resources scoping
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.0531396,-70.32491901353049,14z

Counties: Franklin County, Maine

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Atlantic Salmon *Salmo salar* Population: Gulf of Maine DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2097	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

November 3, 2020

Sean Hale
Vanasse Hangren Brustlin, Inc.
500 Southborough Dr, Suite 105B
South Portland, ME 04106

RE: Information Request – Boyne Resorts Sugarloaf West Mountain Project, Carrabassett Valley

Dear Sean:

Per your request received on September 30, 2020, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Boyne Resorts Sugarloaf West Mountain* project in Carrabassett Valley. Note that as project details are lacking, and due to the general nature and scale of the map that was provided, our comments should be considered preliminary.

Our Department has not mapped any Essential Habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bat Species – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Bicknell's Thrush - Bicknell's Thrush, a Species of Special Concern, occur in the project area. Bicknell's thrush can be found in sub-alpine forests usually dominated by balsam fir and red spruce at elevations >2,700 feet, that typically have a history of disturbance resulting in a stunted dense understory. We recommend that suitable Bicknell's thrush habitat be avoided. Furthermore, to minimize potential impacts to breeding Bicknell's thrush we recommend that no clearing or construction activity adjacent to these types of habitats occur from May 1 through July 31.

Roaring Brook Mayfly – The Roaring Brook mayfly, a State Threatened Species, may occur in the project area. This species can occur in high elevation, headwater streams draining off forested (hardwood or mixed) slopes at or above 1,000 feet (including unmapped streams) within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt. Katahdin to western border with New Hampshire and Quebec). Any instream work in perennial or intermittent streams, or clearing in the vicinity of these streams, has the potential to impact this species. We recommend that no

development or permanent land use conversion occur within the 250-foot riparian buffer of any streams containing this species.

Northern Spring Salamander - Northern spring salamanders, a State-listed Species of Special Concern, may occur in the project area. Any instream work or work adjacent to high elevation headwater streams in this area, including both unmapped perennial and intermittent streams, has the potential to impact this species. They are also found in larger third order streams and rivers with suitable substrate (large cobble and/or gravel bars) within the documented range of primarily the western Maine mountains north and east into mountains of central Penobscot County. We recommend that no development or permanent land use conversion occur within the 250-foot riparian buffer of any streams containing this species.

Significant Wildlife Habitat

Significant Vernal Pools - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

Fisheries Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams that support coldwater fisheries is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fish and fisheries habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

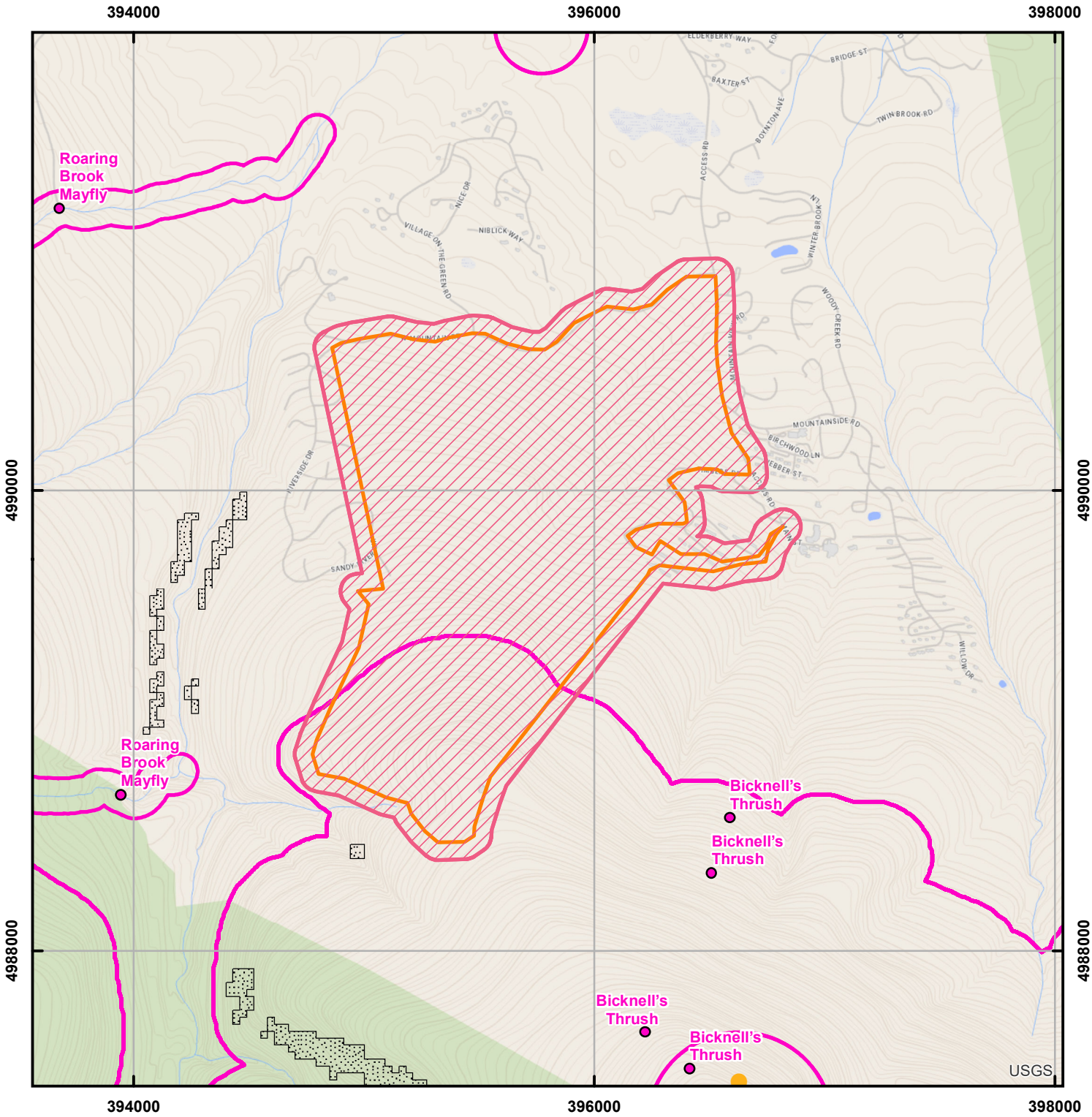
This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may

occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele
Wildlife Biologist



Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Boyne Resorts Sugarloaf West Mountain Project, Carrabassett Valley (Version 1)

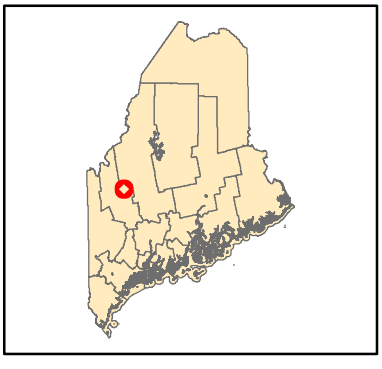
Maine Department of Inland Fisheries and Wildlife

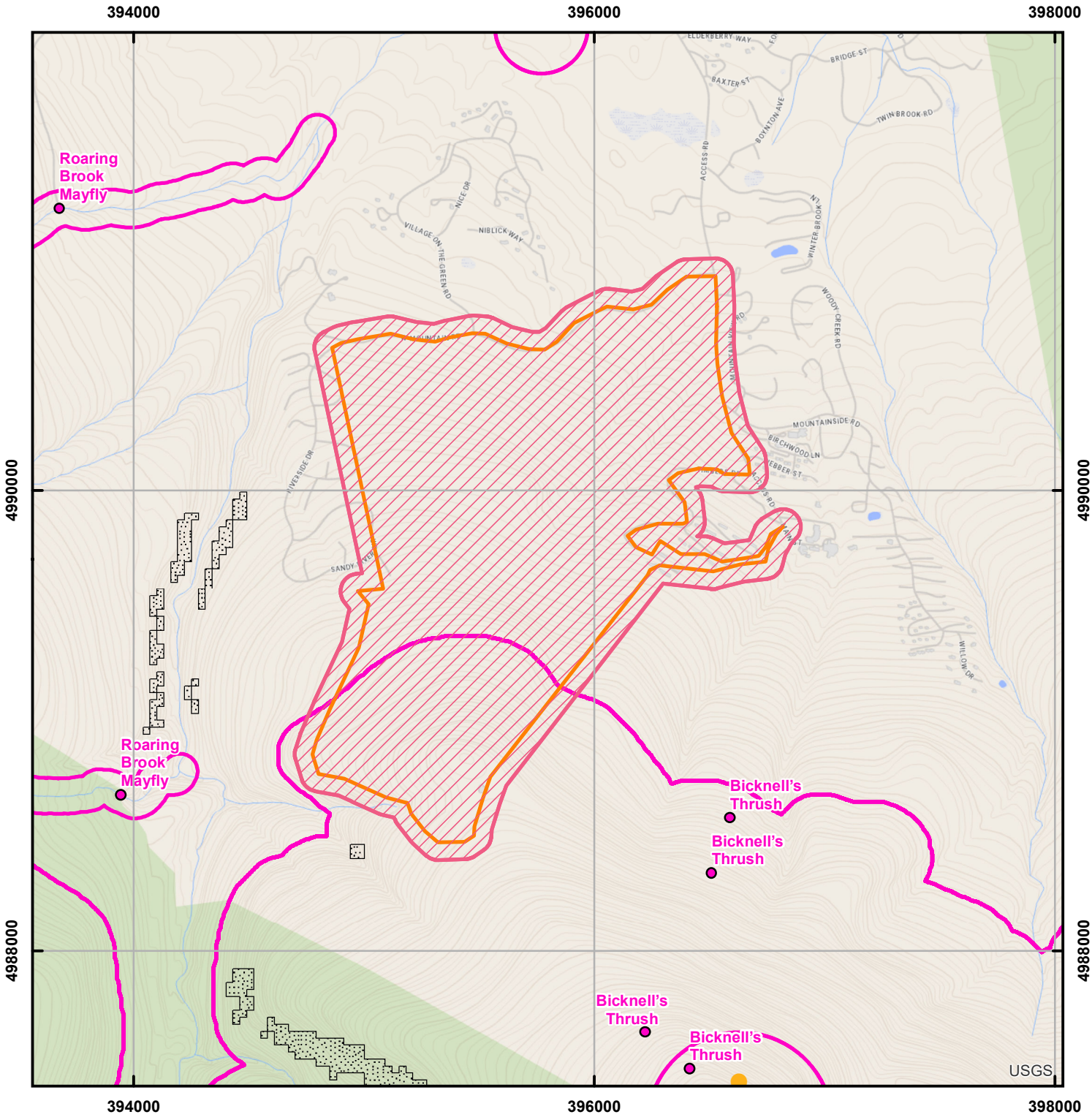
0 0.125 0.25 0.5 0.75 1 Miles

Projection: UTM, NAD83, Zone 19N

Date: 10/1/2020

- ProjectPoints
- ProjectLines
- ProjectPolys
- ProjectSearchAreas
- Maine Cliff and Talus Areas
- Deer Winter Area
- LUPC p-fw
- Cooperative DWAs
- Seabird Nesting Islands
- Shorebird Areas
- Inland Waterfowl and Wading Bird
- 2008 Iwwh - Shoreland Zoning
- Tidal Waterfowl and Wading Bird
- Significant Vernal Pools
- Environmental Review Polygons
- Roseate Tern
- Piping Plover and Least Tern
- Aquatic ETSc - 2.5 mi review
- Rare Mussels - 5 mi review
- Maine Heritage Fish Waters
- Arctic Charr Habitat
- Redfin Pickerel and Swamp Darter Habitats - buffer100ft
- Special Concern occupied habitats - 100ft buffer
- Wild Lake Trout Habitats





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- Maine Heritage Fish Waters
- Arctic Charr Habitat
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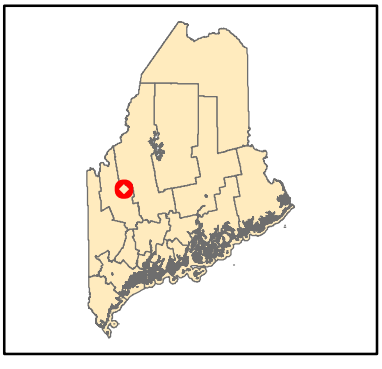
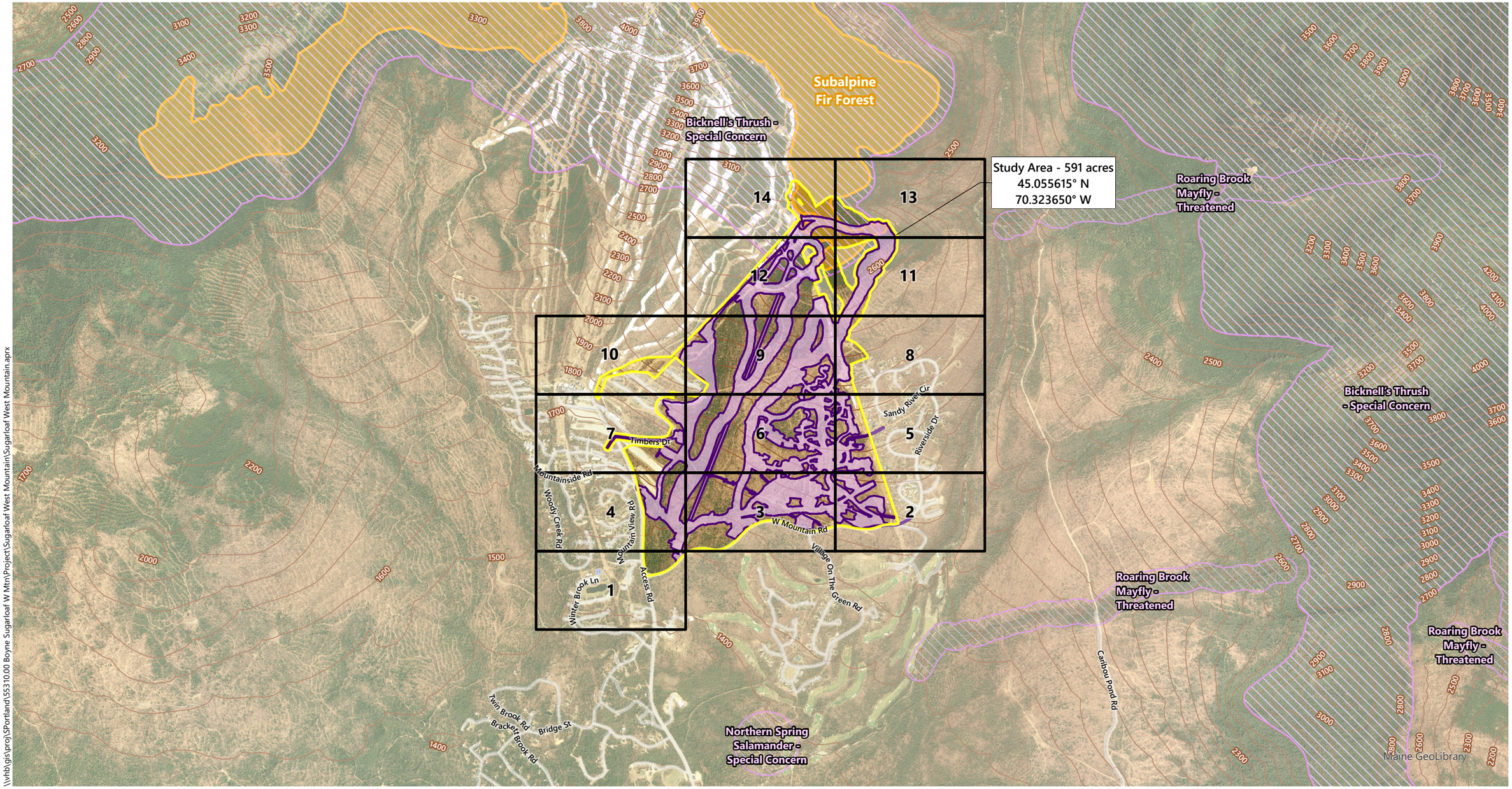


APPENDIX 7-3
NATURAL RESOURCES MAPPING

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

April 25, 2022



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0 1000 2000 4000 Feet

- Map Sheet Index (VHB)
- Proposed LOD (VHB)
- Study Area (VHB)
- NHD Stream (USDA)
- Contours 100 Feet (MG)
- Endangered Threatened and Special Concern Wildlife (IFW/Persons)
- Rare/Exemplary Natural Community (MNAP)

Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
Background Imagery by Maine Geolibrary (Collected in 2016)
IFW (Maine Dept. of Inland Fisheries and Wildlife - Web Mapping Service)
MG (Maine Geolibrary - Web Mapping Service)
Persons (Habitat Assessment by Trevor B. Persons - 11/24/20)
VHB - 2020-2021

Natural Resources Index

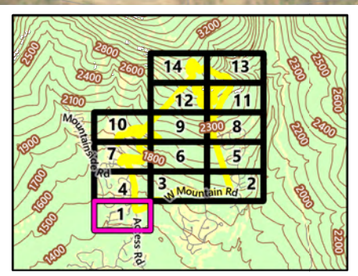
BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

April 26, 2022

0 100 200 400 Feet

- Proposed Limits of Disturbance (VHB)
- Proposed Infrastructure as of 8/20/21
- Study Area (VHB)
- Observed Culvert (VHB)
- Observed Bridge (VHB)
- Observed Culvert Invert (VHB)
- Vernal Pool Point (VHB)
- Corps Wetland Data Plot (VHB)
- Delineated Perennial NRPA Stream (VHB)
- Delineated Intermittent NRPA Stream (VHB)
- Delineated NRPA Drainage Ditch (VHB)
- Wetlands of Special Significance (VHB)
- Delineated Wetland (VHB)
- Adjacent (within 75 ft) to a Protected Resource Area (VHB)
- Roaring Brook Mayfly/Northern Spring Salamander Habitat (Persons)
- NHD Stream (USDA)
- Rare/Exemplary Natural Community (MNAP)
- Endangered Threatened and Special Concern Wildlife (IFW/Persons)
- Parcel Boundary (MEGIS)
- 50 ft Contour (SMC)
- 10 ft Contour (SMC)



Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

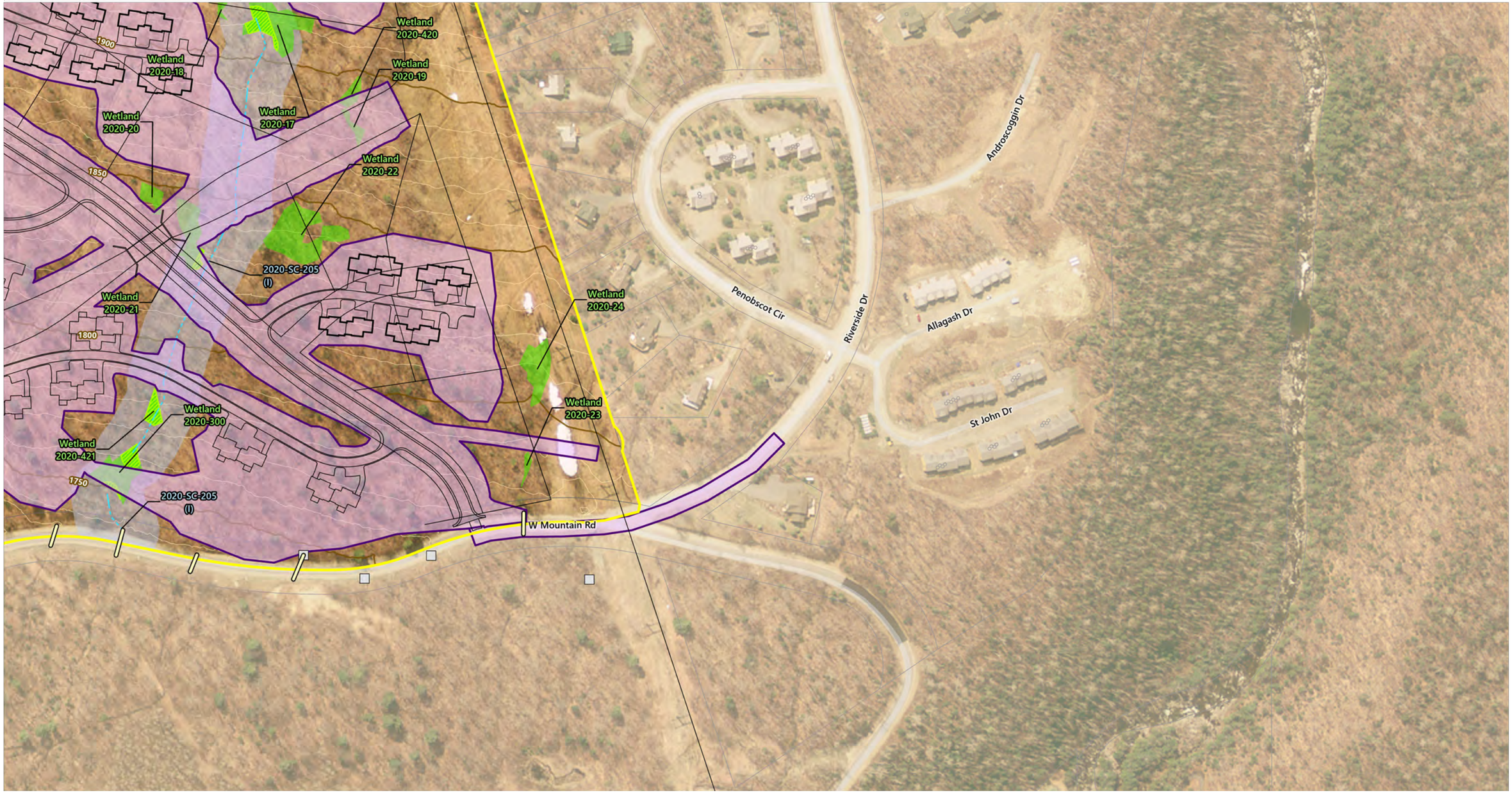
Sources:
Background Imagery by Maine Geolibrary (Collected in 2016)
IFW (Maine Dept. of Inland Fisheries and Wildlife - Web Mapping Service)
MEGIS (Maine Office of Geographic Information Systems - 2000)
Persons (Habitat Assessment by Trevor B. Persons - 11/24/20)
SMC (Sugarloaf Mountain Corp. - Concept Plans dated Nov. 2019)
USDA (U.S. Department of Agriculture - 2019)
VHB - 2020-2021

Natural Resources
Sheet 1 of 14

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

April 26, 2022



0 100 200 400 Feet

- Proposed Limits of Disturbance (VHB)
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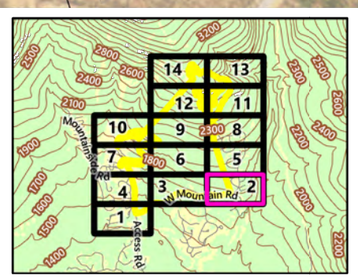

Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

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BOYNE RESORTS
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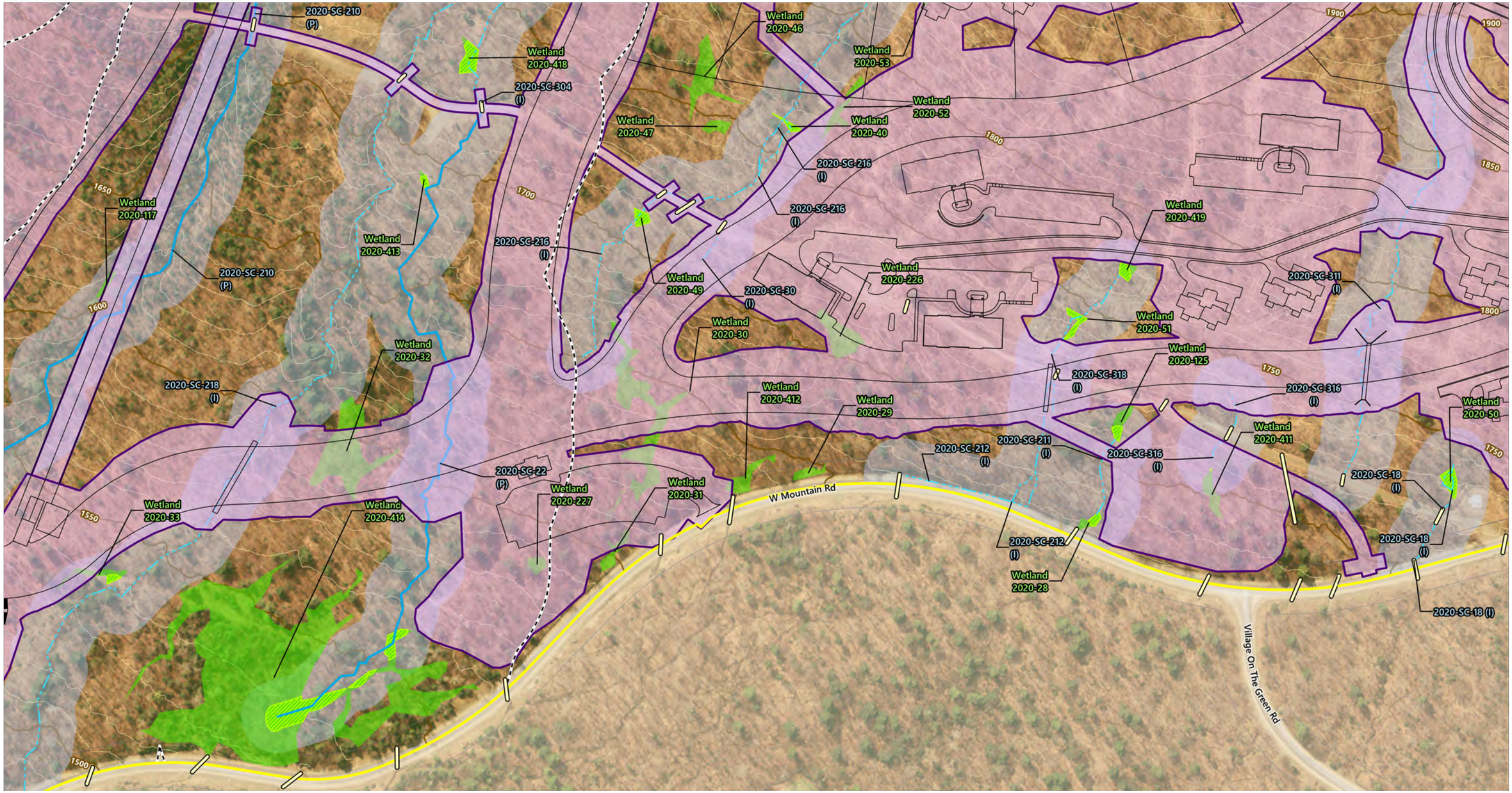
vhb

April 26, 2022



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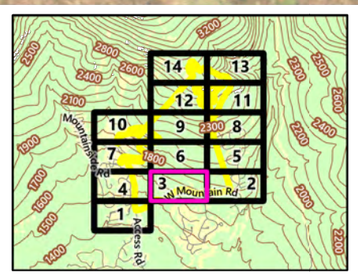

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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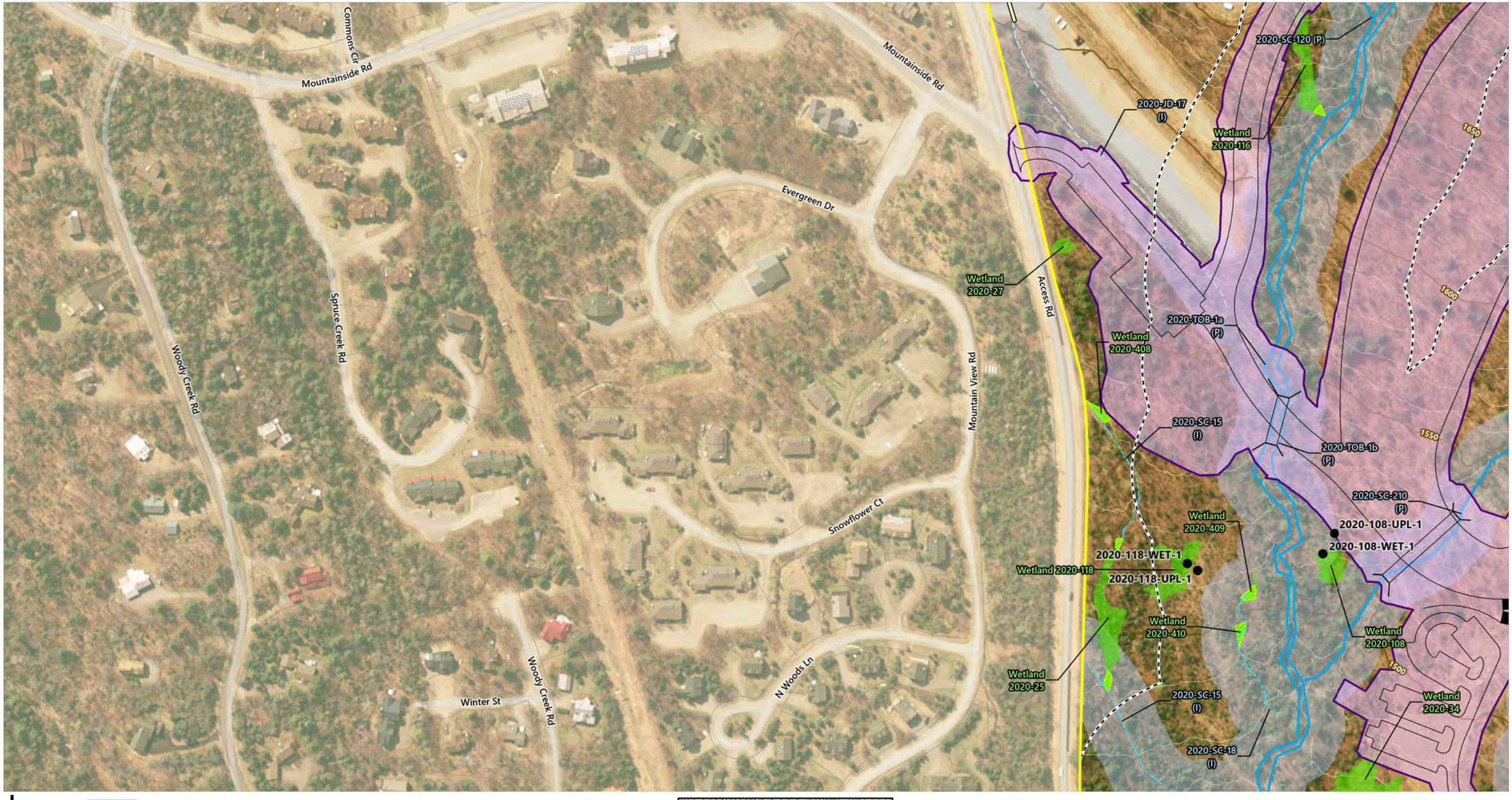
vhb

April 26, 2022



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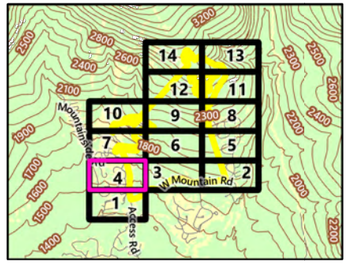

Sugarloaf West Mountain

Carrabassett Valley, Maine

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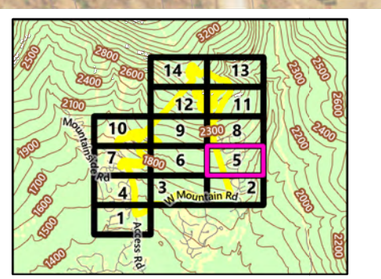

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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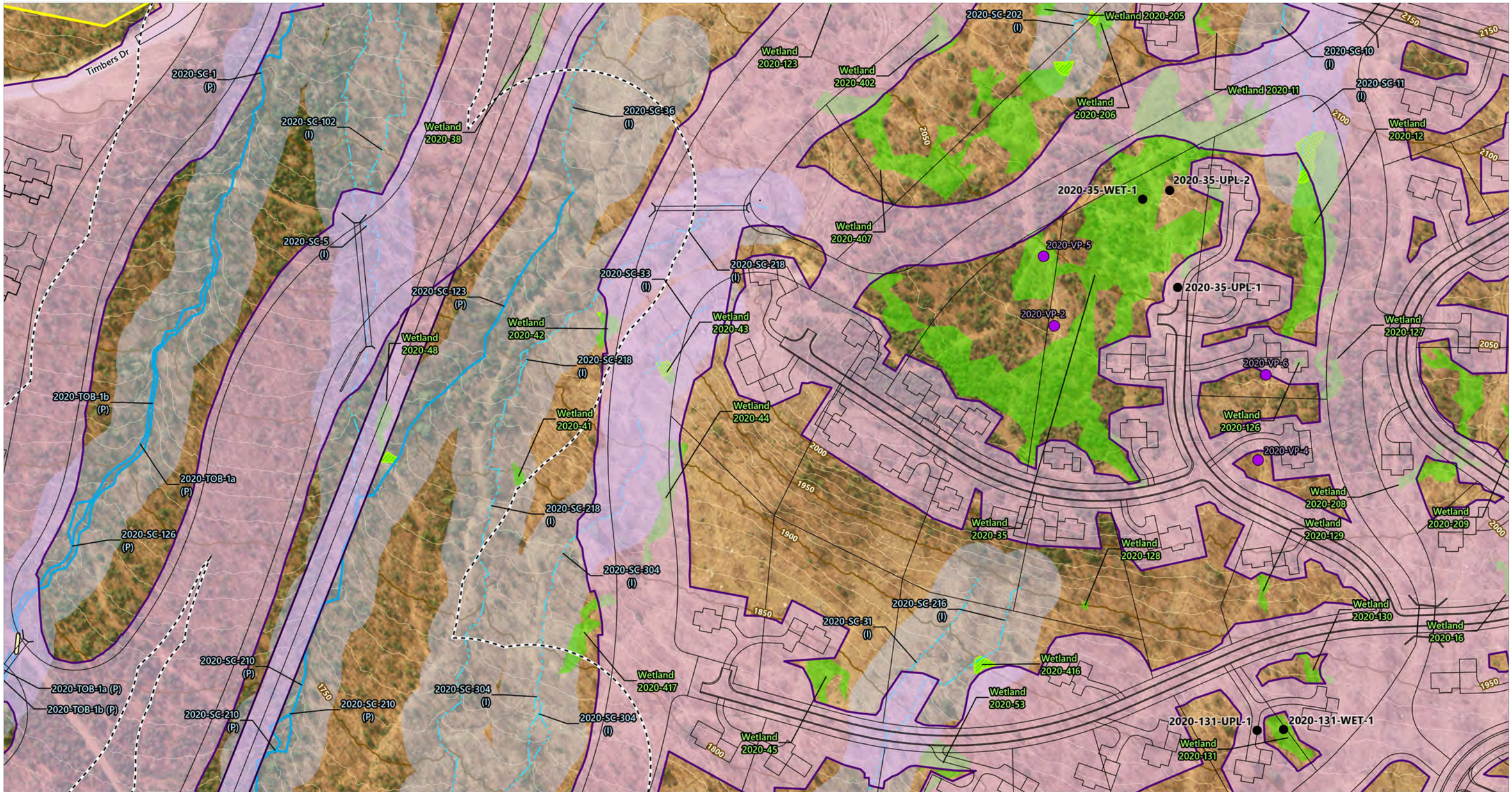
vhb

April 26, 2022



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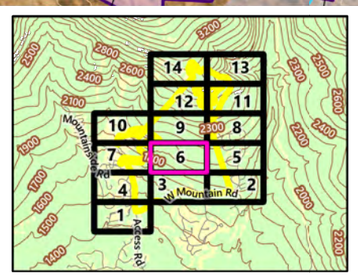

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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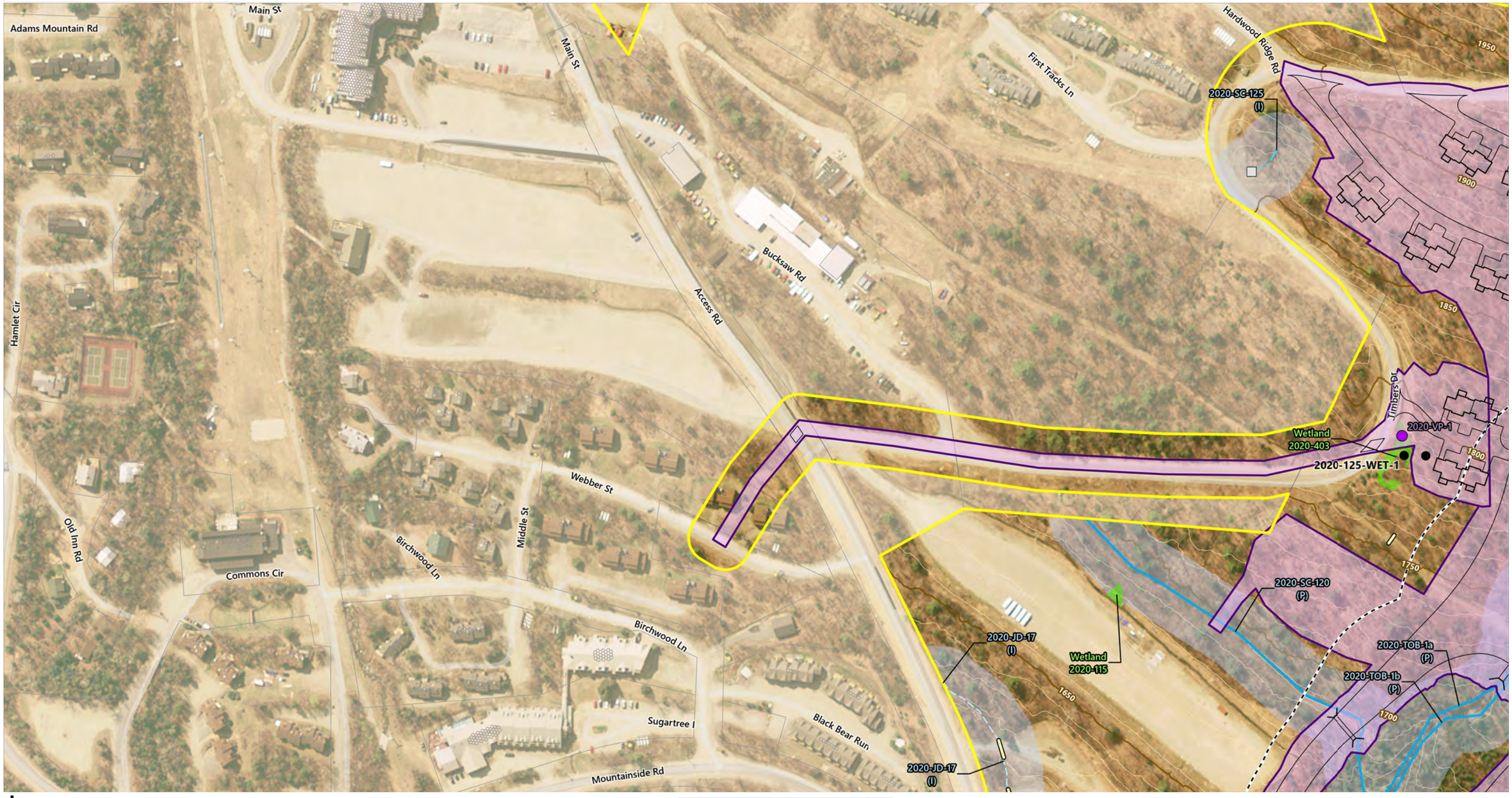
vhb

April 26, 2022



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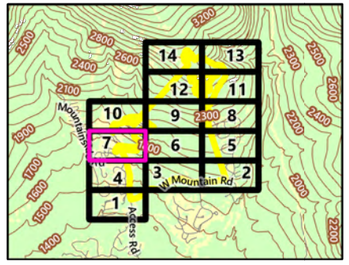

Sugarloaf West Mountain

Carrabassett Valley, Maine

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April 26, 2022

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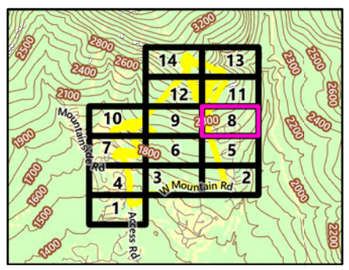

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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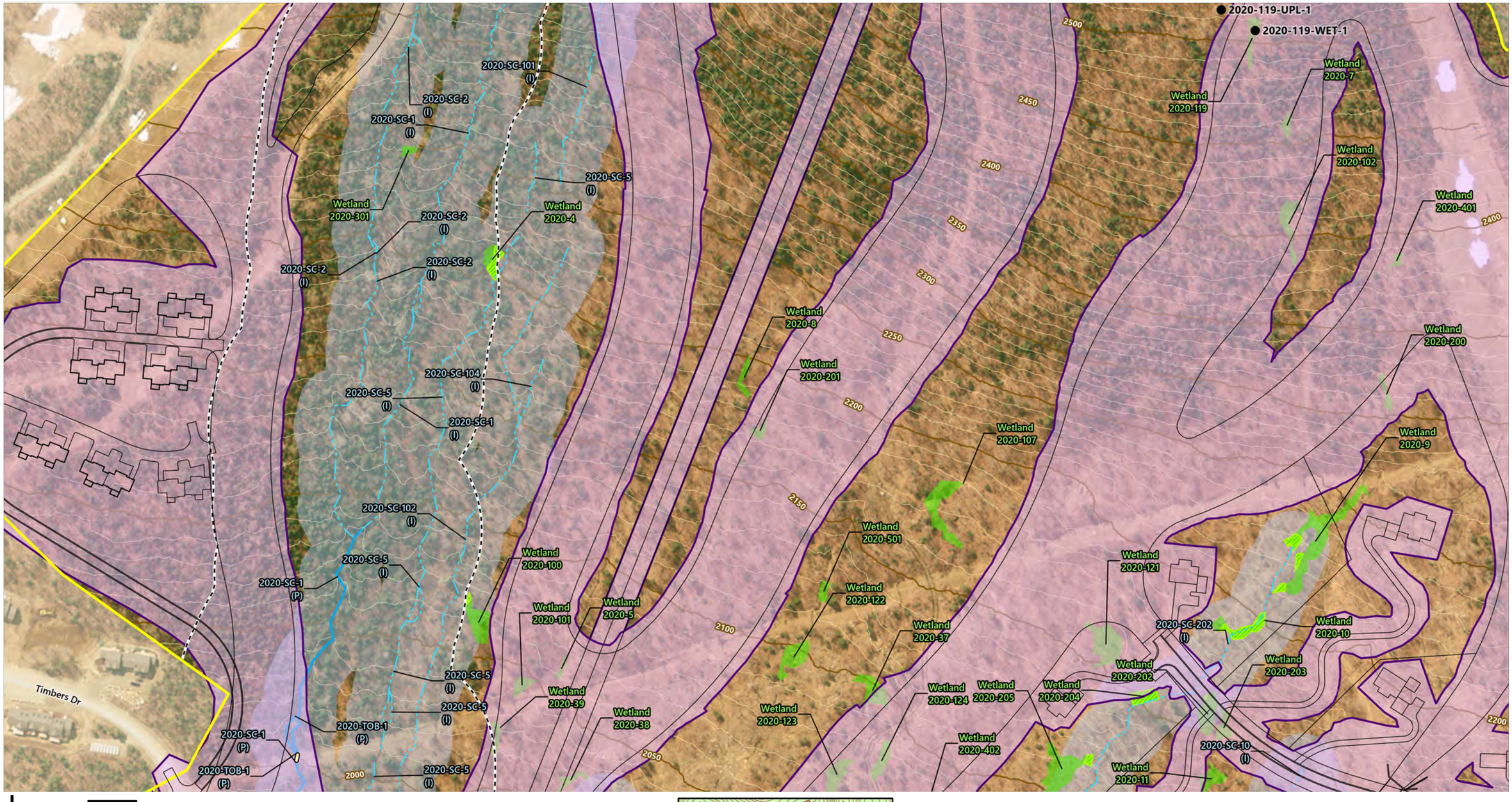
vhb

April 26, 2022



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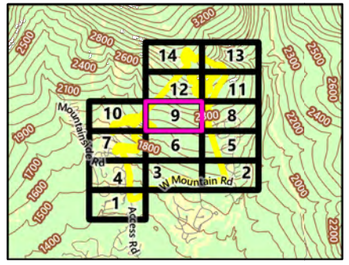

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April 26, 2022

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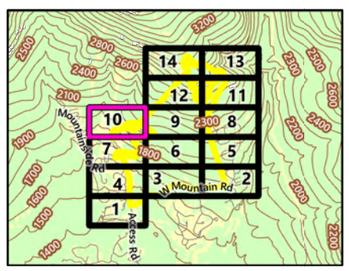

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vhb

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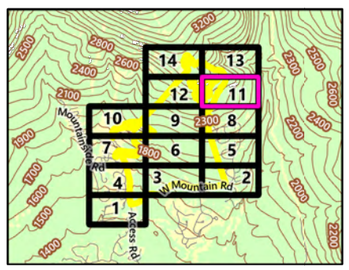

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

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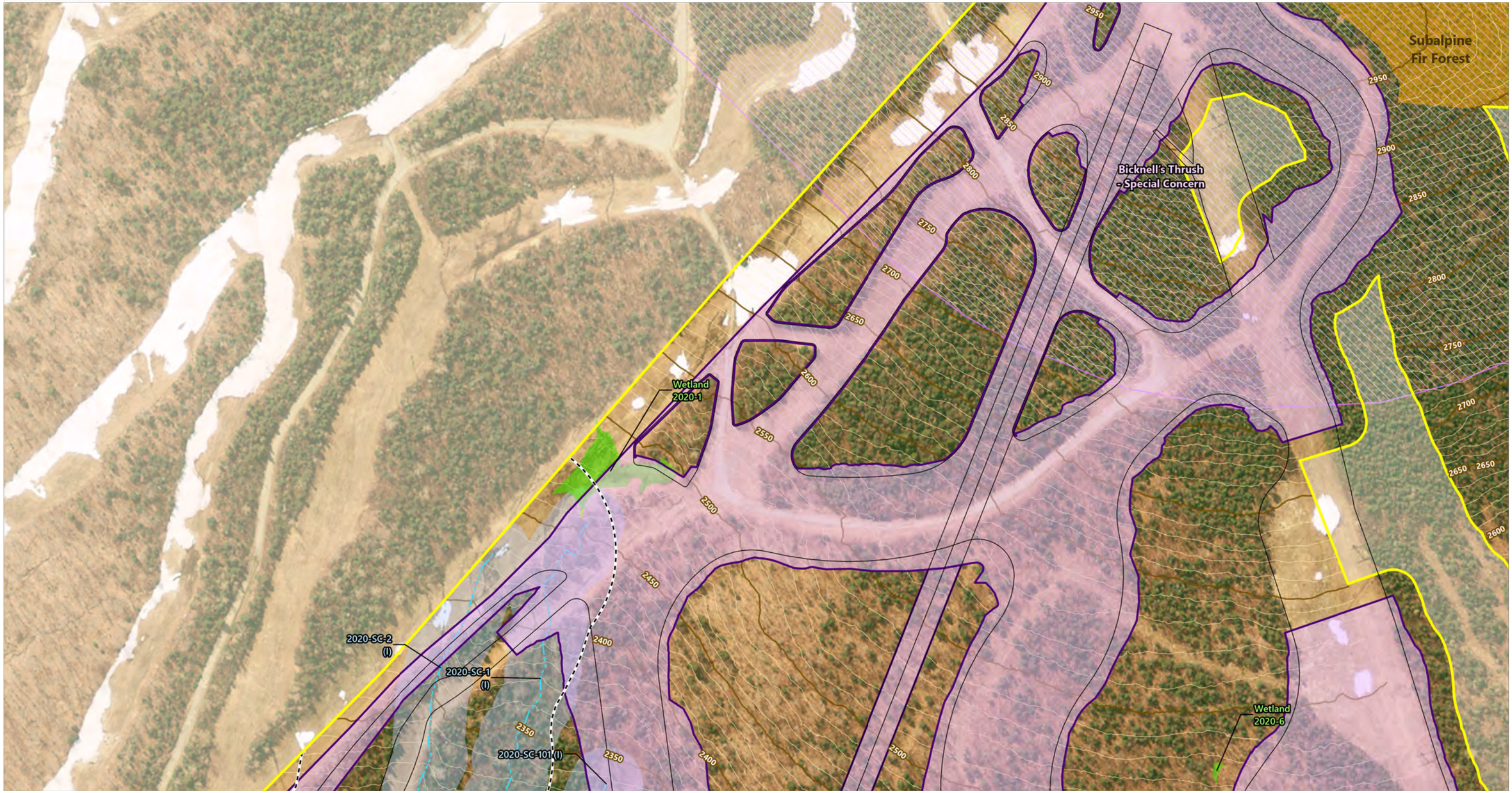

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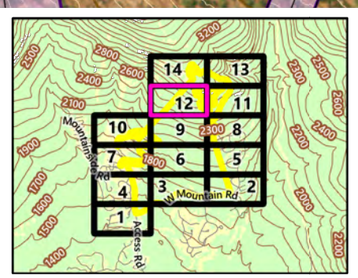
- Parcel Boundary (MEGIS)
- 50 ft Contour (SMC)
- 10 ft Contour (SMC)



Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
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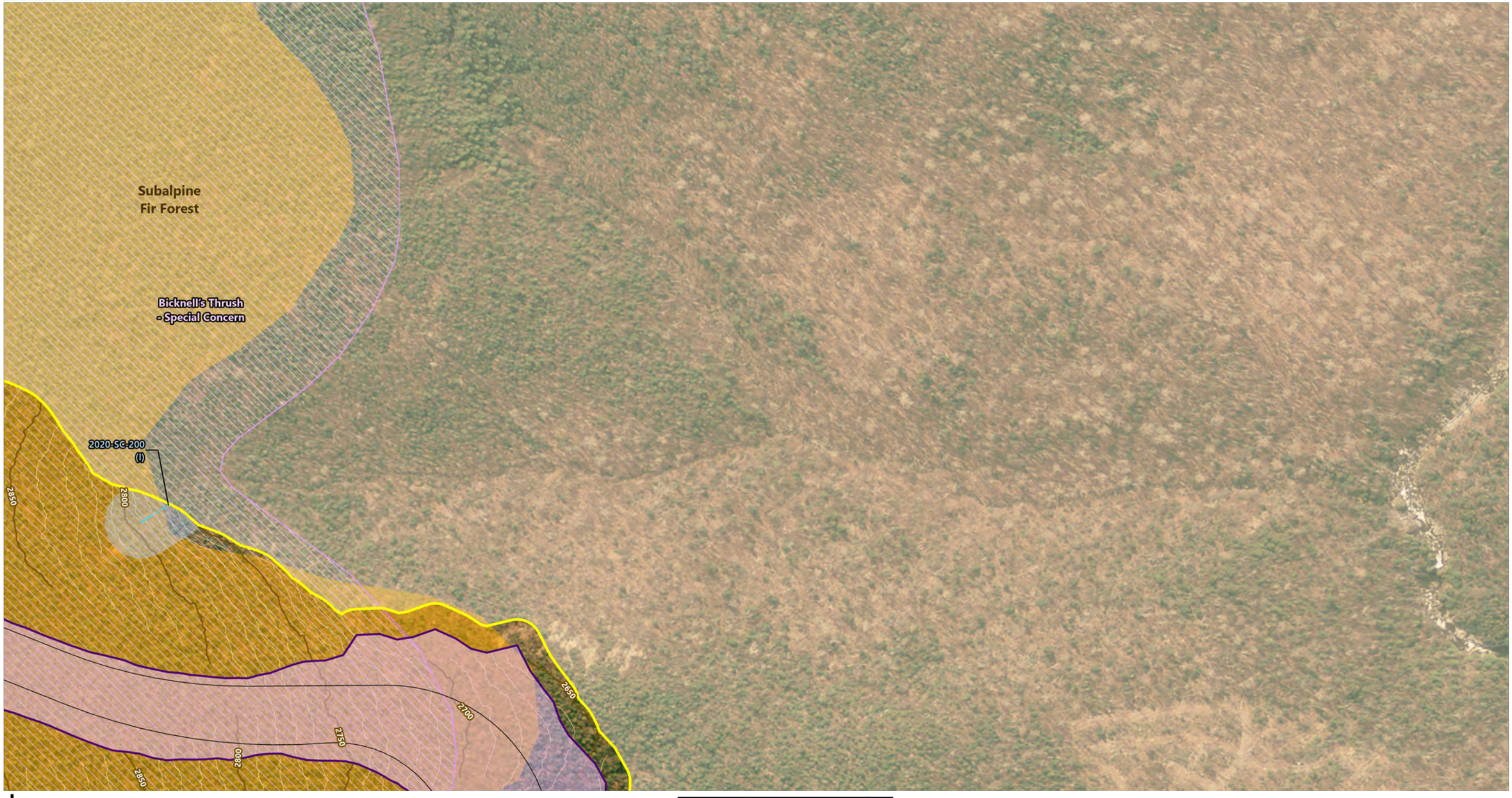
USDA (U.S. Department of Agriculture - 2019)
VHB - 2020-2021

Natural Resources
Sheet 12 of 14

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

April 26, 2022



0 100 200 400 Feet

- Proposed Limits of Disturbance (VHB)
- Proposed Infrastructure as of 8/20/21
- Study Area (VHB)
- Observed Culvert (VHB)
- Observed Bridge (VHB)
- Observed Culvert Invert (VHB)
- Vernal Pool Point (VHB)
- Corps Wetland Data Plot (VHB)
- Delineated Perennial NRPA Stream (VHB)
- Delineated Intermittent NRPA Stream (VHB)
- Delineated NRPA Drainage Ditch (VHB)
- Wetlands of Special Significance (VHB)
- Delineated Wetland (VHB)
- Adjacent (within 75 ft) to a Protected Resource Area (VHB)
- Roaring Brook Mayfly/Northern Spring Salamander Habitat (Persons)
- NHD Stream (USDA)
- Rare/Exemplary Natural Community (MNAP)
- Endangered Threatened and Special Concern Wildlife (IFW/Persons)
- Parcel Boundary (MEGIS)
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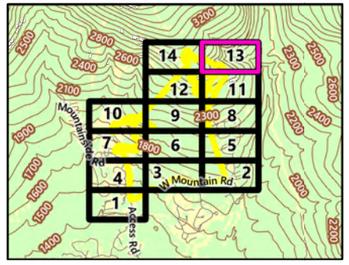
- 10 ft Contour (SMC)



Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
Background Imagery by Maine Geolibrary (Collected in 2016)
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Natural Resources
Sheet 13 of 14

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

April 26, 2022

0 100 200 400 Feet

- Proposed Limits of Disturbance (VHB)
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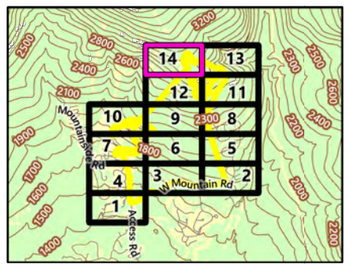

Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates:
vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

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VHB - 2020-2021

Natural Resources
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APPENDIX 7-4
AGENCY CORRESPONDENCE ON VERNAL POOLS

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNER

MELANIE LOYZIM
ACTING COMMISSIONER

February 25, 2021

Sean Hale
VHB
500 Southborough Drive, Suite 105B
South Portland, ME 04106

Re: Vernal Pool Significance Determination, Pool ID #s 4236, 4237, 4234, 4235, 4238, 4239– Carrabassett Valley

Dear Sean Hale:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field surveys, it has been determined that the vernal pools identified above on the property of Karl Strand are NOT SIGNIFICANT because either: 1. the features do not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pools do not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pools are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your surveys.

I want to also advise you that the pool areas on the property can be considered freshwater wetlands and therefore direct pool alterations may require permitting under the NRPA.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Nicholas D. Livesay, Director
Bureau of Land Resources

cc. town file

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, February 25, 2021

IFW's Pool ID: 4234 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 396313 E, 4990069 N
Observer's ID: 2020-VP-1
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and spotted salamanders but does not meet egg mass criteria. Pool also appears to be of unnatural origin (man made ditch).

IFW's Pool ID: 4235 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395586 E, 4990012 N
Observer's ID: 2020-VP-2
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and spotted salamander but does not meet egg mass criteria. Pool also may be on unnatural origin (old skidder rut).

IFW's Pool ID: 4236 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395606 E, 4990068 N
Observer's ID: 2020-VP-3
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Pool provides some habitat for wood frogs and spotted salamander but does not meet egg mass criteria.

IFW's Pool ID: 4237 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395459 E, 4990099 N
Observer's ID: 2020-VP-4
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Pool provides some habitat for wood frogs and spotted salamanders but does not meet egg mass criteria. Pool may also be of unnatural origin (skidder rut) but unclear from photo provided.

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, February 25, 2021

IFW's Pool ID: 4238 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395591 E, 4989969 N
Observer's ID: 2020-VP-5
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/21/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for spotted salamander but does not meet egg mass criteria. Pool also appears to be of unnatural origin (old skidder rut).

IFW's Pool ID: 4239 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395453 E, 4990045 N
Observer's ID: 2020-VP-6
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for spotted salamander but does not meet egg mass criteria. Pool also appears to be unnatural in origin (skidder rut).

APPENDIX 7-5
WILDLIFE HABITAT STUDY

Sugarloaf West Mountain Project Habitat Assessment for Roaring Brook Mayfly, Bicknell's Thrush, and Northern Spring Salamander

Prepared for VHB and Maine Department of Inland Fisheries and Wildlife

Trevor B. Persons
206 Bigelow Hill Road, Norridgewock, Maine 04957

24 November 2020

Introduction

The Roaring Brook Mayfly (*Epeorus frisoni*) is listed as Threatened under Maine's Endangered Species Act, and Bicknell's Thrush (*Catharus bicknelli*) and Northern Spring Salamander (*Gyrinophilus porphyriticus porphyriticus*) are listed as Species of Special Concern by the Maine Department of Inland Fisheries and Wildlife (MDIFW). Bicknell's Thrush, a migratory species that breeds in Maine and winters in the Caribbean, primarily occurs in stunted montane spruce-fir forest generally above 2700 feet elevation (Vickery 2020. Birds of Maine. Princeton University Press). However, Bicknell's Thrush is occasionally found at lower elevations in structurally similar habitats (Vickery 2020, *op. cit*.). In addition, in Maine the species is sometimes found in taller-stature high-elevation spruce-fir forest on mountains that also contain typical stunted forest (pers. obs.; Louis Bevier and Adrienne Leppold, pers. comm.). Bicknell's Thrush has been documented on Sugarloaf Mountain just east of the project area (MDIFW). Roaring Brook Mayfly and Northern Spring Salamander inhabit headwater streams in the Western and Central Mountains ecoregions of Maine, and both have been documented in the South Branch Carrabassett River watershed in close proximity to Sugarloaf Mountain in the township of Carrabassett Valley, Franklin County (MDIFW).

The upper elevations of the Sugarloaf West Mountain Project area contain coniferous forest habitat, particularly some previously mapped by the Maine Natural Areas Program (MNAP) as Subalpine Fir Forest, that could harbor breeding Bicknell's Thrush. Several small perennial streams that could potentially harbor Roaring Brook Mayfly or Northern Spring Salamander occur within the middle and lower elevations of the project area. I conducted this brief survey, on 20 November 2020, in order to identify the limits of potentially suitable habitat for these three species within the project area. I was accompanied in the field by Sean Hale, Gil Paquette, and Sarah X from VHB and Kristen Puryear from MNAP.

Results: Bicknell's Thrush

Bicknell's Thrush likely occur within the project area, particularly within the area previously mapped as Subalpine Fir Forest (Figure 1). Although classic, wind-swept stunted spruce-fir habitat like that found around the Sugarloaf summit is not present in the project area, much of the area, particularly that mapped as Subalpine Fir Forest, consists of slightly taller stature (15–20 feet) spruce-fir forest often used by Bicknell's Thrush. Based on this survey I estimate this

potentially suitable habitat to roughly occur above the 2700 foot contour, as I have mapped in Figures 1 and 2. This is somewhat less extensive than the Bicknell's Thrush buffer polygon mapped in Figure 1. Downslope of the red boundary line the habitat transitions to taller (20–40 feet) spruce-fir mixed with an increasingly greater hardwood component (Figure 2). This can be seen in Figures 4 and 8 which are looking downslope to the NNW and NE, respectively. While it is impossible to predict precisely where within this area Bicknell's Thrush may occur, it is most likely within the area mapped as Subalpine Fir Forest, as trees in this zone are consistently shorter stature than those farther downslope (Figure 5–7). Although Bicknell's Thrush is often the dominant thrush at the highest elevations, including presumably around the main Sugarloaf summit, in the project area it is likely that Swainson's Thrush (*Catharus ustulatus*) also occurs and may be the more common species, especially outside of the Subalpine Fir Forest zone.

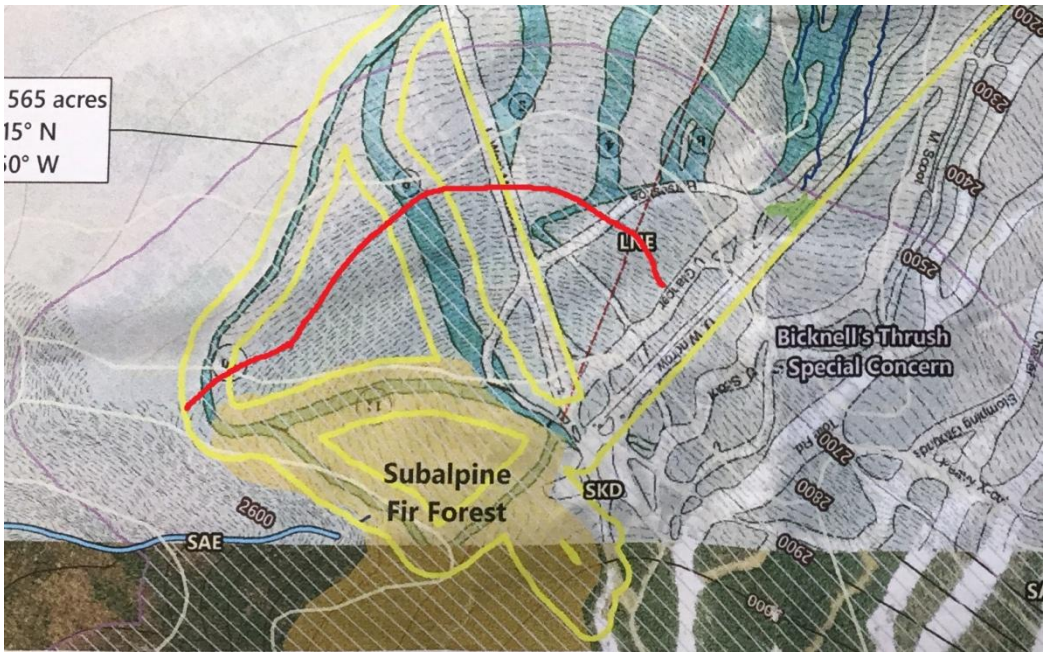


Figure 1. Bicknell's Thrush habitat assessment approximate downslope boundary of potential habitat within the study area, corresponding roughly to 2700 foot contour. Study area boundaries are in yellow, and thin purple line is MDIFW Bicknell's Thrush buffer based on nearby occurrence records on main Sugarloaf summit. Shaded yellow is Subalpine Fir Forest as previously mapped by MNAP.

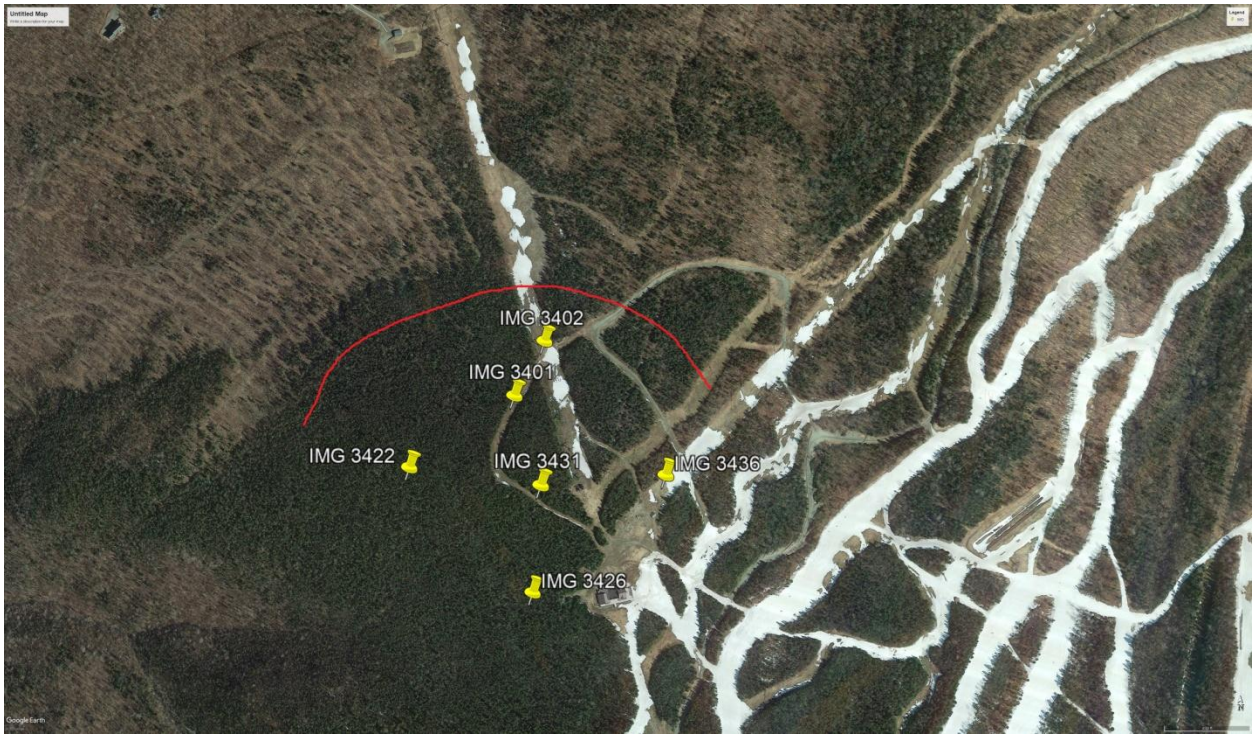


Figure 2. Bicknell's Thrush habitat assessment photo points and approximate downslope boundary of potential habitat within the study area, corresponding roughly to 2700 foot contour.

Figure 3. Bicknell's Thrush habitat assessment photo point IMG 3401, within existing ski slope.

Figure 4. Bicknell's Thrush habitat assessment photo point 3402, looking NNW down main western existing ski slope.

Figure 5. Bicknell's Thrush habitat assessment photo point 3422 within mapped Subalpine Fir Forest habitat.

Figure 6. Bicknell's Thrush habitat assessment photo point IMG 3426 within mapped Subalpine Fir Forest habitat.

Figure 7. Bicknell's Thrush habitat assessment photo point IMG 3431 within existing ski trail at boundary of mapped Subalpine Fir Forest habitat.

Figure 8. Bicknell's Thrush habitat assessment photo point IMG 3436 looking NE down main eastern existing ski slope.

Results: Roaring Brook Mayfly and Northern Spring Salamander

Based on shared habitat characteristics of perennial or nearly perennial flow, presence of medium- or large-size cobble, and loose, gravelly substrate within the streambed I delineated sections of previously mapped streams that contain apparently suitable habitat for Roaring Brook Mayfly and Northern Spring Salamander (Figure 9). The explanation for red numbered points along streams in Figure 9 is as follows:

1. In east fork of easternmost stream habitat becomes marginally suitable for Northern Spring Salamander downstream of this point (UTM 395969 E, 4989484 N).

2. Habitat is suitable for both Roaring Brook Mayfly and Northern Spring Salamander downstream of this point at the confluence of two streams (UTM 396021 E, 4989643 N). The western fork upstream of this point does not appear suitable.

3. Upstream of Timbers Road neither fork is suitable for either species. Downstream of Timbers Road to point 4, the eastern fork is suitable for both species (especially Northern Spring Salamander), but the western fork is not suitable for either species.

4. Everything downstream of point 4 in this stream is suitable for both species.

5. The two forks upstream of point 5 are not suitable for either species, but downstream of point 5 the stream is suitable for both species.

6. These two streams are suitable for both species downstream of the existing woods road, but unsuitable upstream of the road (UTM 395922 E, 4990283 N).

I surveyed other small mapped streams intersecting the woods road west and northwest of point 6 in Figure 9, all of which were too small and/or without suitable gravelly substrate to likely support either species. Representative photographs of potential habitat for both species is shown in Figures 10–13.

Northern Spring Salamander presence is more predictable than that of Roaring Brook Mayfly, i.e., apparently suitable habitat for Northern Spring Salamander, in a region where the species is known to occur, is likely to be occupied. Thus, Northern Spring Salamander likely occurs in most or all of the stream sections delineated here as potential Northern Spring Salamander habitat. Presence or absence of Roaring Brook Mayfly is harder to predict, and a visual habitat assessment such as this, even within a region where the species is known to occur, is only able to identify potentially suitable sites based on the range of known occupied habitats elsewhere. While most known Roaring Brook Mayfly habitat consists of somewhat larger streams than are present in the project area, with greater flow and larger cobbles and boulders, some of the smaller known mayfly streams are similar to those shown in Figures 11–13. The documented occurrence of Roaring Brook Mayfly in close proximity to the project area suggests a greater likelihood of occupation in these smaller streams than might be expected in similar habitat farther from existing populations of the species.

If surveys for either species were desired in order to provide a more reliable assessment of the various identified stream segments they would likely require from two to several days (for each species), depending on results (i.e., if presence is confirmed quickly in any given stream than that survey can be terminated, whereas inferring a species' absence requires greater survey effort). For both species, surveys should be conducted in late summer (August–September).

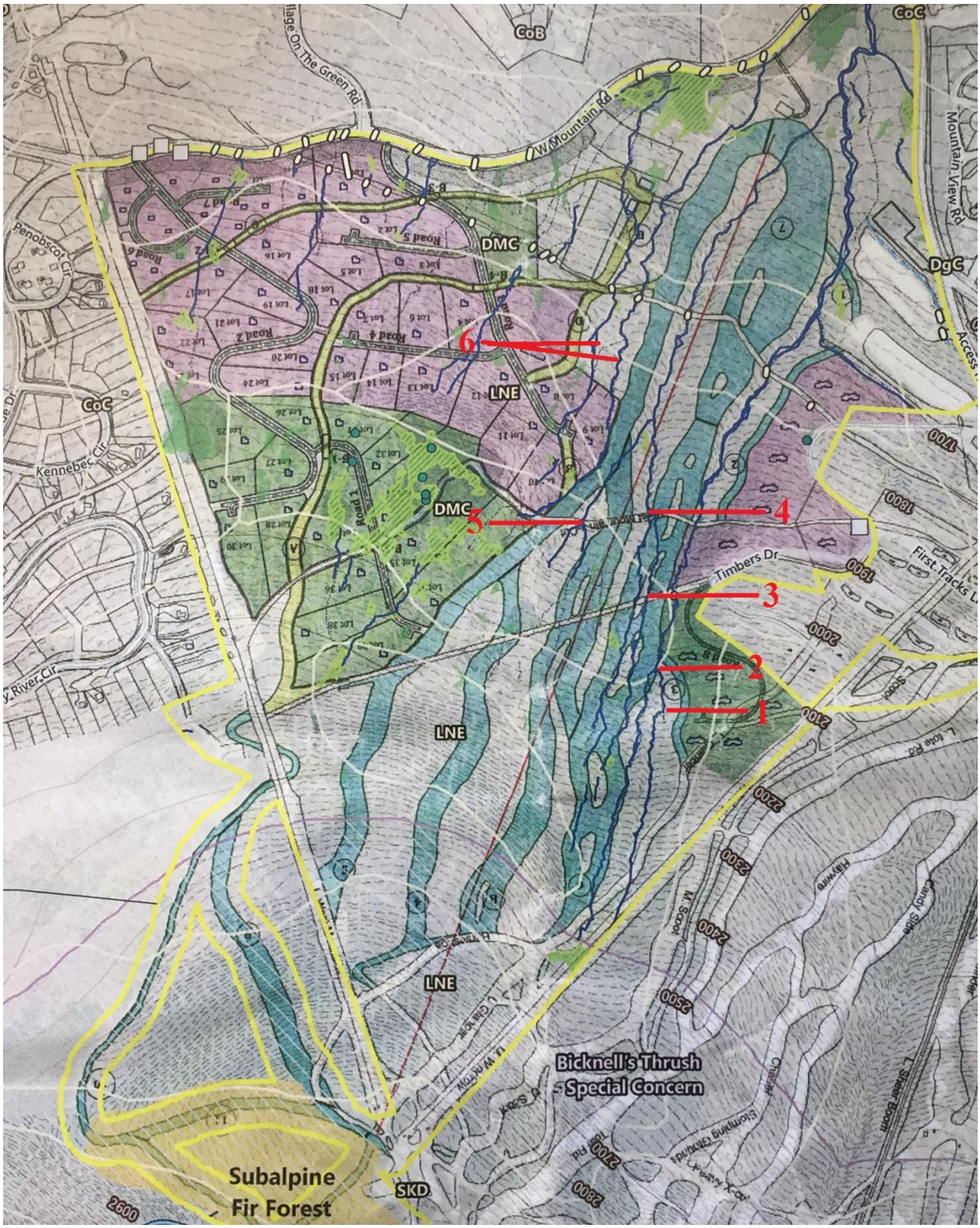


Figure 9. Boundaries of potential habitat for Roaring Brook Mayfly and Northern Spring Salamander based on field reconnaissance of streams on 20 November 2020. See text for explanation.

Figure 10. Upper boundary of suitable habitat for Northern Spring Salamander at point 1 on Figure 9.

Figure 11. Upper boundary of suitable habitat for both Roaring Brook Mayfly and Northern Spring Salamander at point 2 on Figure 9, at confluence of two smaller streams.

Figure 12. Representative high-quality habitat for Northern Spring Salamander, with backwater pools, large cobble, and an exposed cobble/gravel bar/island downstream of point 2 on Figure 9. Roaring Brook Mayfly may also occur here.

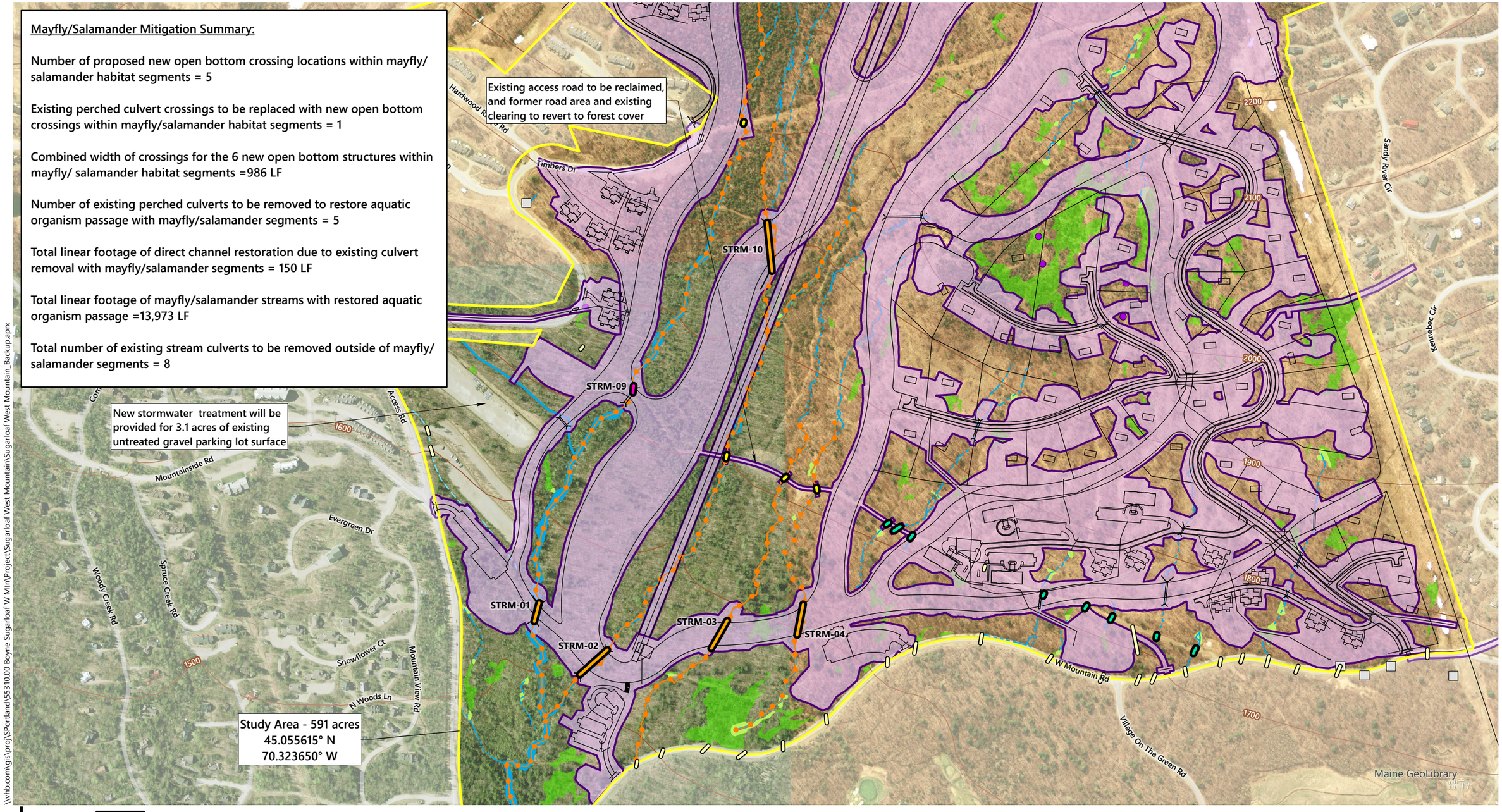
Figure 13. Representative high-quality habitat for Northern Spring Salamander and potentially also Roaring Brook Mayfly in easternmost surveyed stream, looking upstream from woods road east of point 6 on Figure 9.

APPENDIX 7-6
MITIGATION EXHIBIT – POTENTIAL ROARING BROOK MAYFLY / NORTHERN SPRING SALAMANDER HABITAT

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

September 23, 2021
Last Updated: April 25, 2022



\\vhb.com\gis\proj\SPortland\55310.00 Boyne Sugarloaf W Mtn\Project\Sugarloaf West Mountain_Backup.aprx

0 250 500 1000 Feet

- Proposed Infrastructure as of 8/20/21
- Proposed LOD (VHB)
- Study Area (VHB)
- Proposed Culvert w/in Roaring Brook Mayfly/ Northern Spring Salamander Habitat Segments (VHB)
- Existing perched culvert to be replaced with open bottom crossing w/in Roaring Brook Mayfly/ Northern Spring Salamander Habitat Segments (VHB)
- Existing perched culvert to be removed w/in Roaring Brook Mayfly/Northern Spring Salamander Habitat Segments (VHB)
- Existing perched culvert to be removed (VHB)
- Observed Culvert (VHB)
- Observed Bridge (VHB)
- Observed Culvert Invert (VHB)
- Observed Non-Significant Vernal Pool (VHB)
- Roaring Brook Mayfly/Northern Spring Salamander Suitable Habitat Segments (Persons)
- Delineated Perennial NRPA Stream (VHB)
- Delineated Intermittent NRPA Stream (VHB)
- Delineated NRPA Drainage Ditch (VHB)
- Wetlands of Special Significance (VHB)
- Delineated Wetland (VHB)
- NHD Stream (USDA)
- Contours 100 Feet (MG)

Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
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MNAP (Maine Natural Areas Program - 2021)
Persons (Habitat Assessment by Trevor B. Persons - 11/24/20)
USDA (U.S. Department of Agriculture - 2019)
USFWS (U.S. Fish & Wildlife Service - Wetland Web Mapping Service)
VHB - 2020-2021

Mitigation Exhibit: Potential Roaring Brook Mayfly/ Northern Spring Salamander Habitat

SECTION 9. UNUSUAL NATURAL AREAS:

The Maine Department of Agriculture, Conservation and Forestry – Maine Natural Areas Program (MNAP) to determine specific locations of any unusual natural areas within or adjacent to the proposed Project. The locations of botanical resources including rare, threatened, and endangered (RTE) plants and rare and exemplary natural communities in Maine are mapped by the MNAP. This information is used for status assessment, species management, and habitat conservation of rare plant species and rare and exemplary natural communities in Maine. According to the MNAP, "A natural community is an assemblage of interacting plants and animals and their common environment, recurring across the landscape, in which the effects of human intervention are minimal. A natural community includes all of the organisms (plant, animal, etc.) in a particular physical setting, as well as the physical setting itself" (MNAP 2004)

9.A Methods

9.A.1 Agency Correspondence

In a letter dated July 10, 2020, MNAP provided a list of rare or unique botanical features documented from the vicinity of the project. The list included information on features that have been known to occur historically in the area as well as recently field-verified information. MNAP specifically noted that the higher elevation areas in the southwestern corner of the Project include portions of a mapped Subalpine Fir Forest, a rare (state rank S3) forest type in Maine which includes balsam fir, or a mixtures of fir and heart-leaved paper birch, which form a dense canopy of somewhat stunted trees. Patches of heart-leaved paper birch and mountain ash are common where wind, fire, or landslides have created openings, along with a dense shrub layer of mountain ash, hobblebush, and regenerating fir.

Agency correspondence is provided in Appendix 9-1.

9.A.2 Landscape Analysis and Field Surveys

VHB's investigation and analysis regarding rare, threatened, and endangered ("RTE") plant and natural communities consisted of database review via a desktop survey as well as a two-staged field survey. In spring of 2020, VHB reviewed the publicly available "Beginning with Habitat" map database to determine if the MNAP had previously recorded known occurrences of RTE plants at the Project site. Additionally, VHB reviewed the RTE species known to associate with onsite or potentially occurring natural communities in order to determine the list of TE plants that would be targeted (habitats and survey windows) for onsite surveys. From initial review as informed by a 2019 walkover, there are approximately 10 natural community types that could be present within the Study Area, in a subset of which there are approximately 14 state TE plants which may associate with one or more types (MNAP 2004), and therefore suitable habitat for these species was a focus during onsite surveys.

Following this database review, VHB ecologists conducted an in-field general habitat assessment and floristic survey of the entire Study Area between June 8 and June 12 and June 22 through June 26, 2020.

In its July 10, 2020 letter, MNAP provided a listing of potential threatened or endangered plant species in the vicinity. After reviewing this list, VHB conducted targeted surveys within all portions of Subalpine Fir Forest (as provided by MNAP) that occur in our Study Area from August 8-10, 2020. The five targeted species are provided in the table below.

Scientific Name	Common Name(s)	Maine Threatened or Endangered (T, E)	Flowering/ Sporation Time
Neottia auriculata (Wiegand) Szlach.	Auricled Twayblade	T	July-August
Pinguicula vulgaris L.	common butterwort	E	June-July
Arnica lanceolata Nutt.	lanceleaf arnica	T	July-September
Huperzia selago (L.) Bernh. ex Schrank & Mart.	fir clubmoss	T	July-September
Calamagrostis stricta (Timm) Koeler	slimstem reedgrass	T	June-August

During this survey, VHB also assessed the suitability of onsite habitats for known occurrences of RTE within 4 miles of the project based on the listing provided by MNAP.

9.B Findings

Vegetative conditions within the Study Area generally consist of hardwood forest with smaller inclusions of mixed-wood forest at low and middle elevations, which grade into a softwood dominated forest cover (Subalpine Fir Forest community) at the highest elevations. Extensive logging has occurred recently on most of the forestland in the Study Area, which is the most evident and most significant observed disturbance. The residual stand conditions consist of pole- and small sawtimber sized trees, with dominant species including red maple, beech, paper and gray birch, with yellow birch and aspen. Logging activity removed a significant portion of the canopy, resulting in a thick, robust shrub and sapling layer of regenerating trees and early successional/disturbance-response shrubs and herbaceous plants. Vegetative conditions across the Study Area outside of the Subalpine Fir Forest are generally homogenous, with shifts in dominant species between upland forest and the scattered wetlands and riparian corridors as shown in VHB's natural resource map set. Because portions of the Study Area abut existing ski resort development such as condominium developments, roads, ski trails and other infrastructure, there are weedy plant species typical of human disturbances but these are limited to the immediate proximity of developed areas. Overall, the forest conditions in the context of previous forest management activity, outside of the Subalpine Fir Forest, are common across the surrounding landscape and do not represent any special, unique, or exemplary natural community occurrences.

9.B.1 RTE Plants

VHB assessed on-site habitats within the Study Area for the potential presence of RTE plant species that have been observed within a 4-mile radius according to information provided by MNAP. Of the list of known occurrences, there were some which did not have suitable on-site habitat and some occurrences did have suitable on-site habitat but were not observed during surveys. During the field surveys described above, VHB ecologists identified 208 plant species

within the Study Area. A list of all species identified during VHB's on-site general and targeted surveys is included as Appendix 9-2.

9.B.2 Natural Communities

MNAP specifically noted that the higher elevation areas in the southwestern corner of the Project include portions of a mapped Subalpine Fir Forest, a rare (state rank S3) forest type in Maine which is characteristically dominated by balsam fir with red spruce and sometimes black spruce and can include components paper and heart-leaved paper birch, which form a dense canopy of somewhat stunted trees. The Subalpine Fir Forest map shapefile provided by MNAP overlaps the southernmost portion of the Project Study Area, at elevations higher than approximately 2,550 feet. The MNAP polygon for this occurrence of Subalpine Fir Forest extends south beyond the study area, totaling 1,342.4 acres.

During VHB's natural resource field assessments, the presence of a Subalpine Fir Forest as mapped by MNAP was confirmed. The woody species composition, canopy structure, and herbaceous plants observed in the Subalpine Fir Forest in the Study Area during VHB's 2020 fieldwork are characteristic of those described in the MNAP publication *Natural Landscapes of Maine* (MNAP, 2018). A dense overstory dominated by balsam fir is present, with scattered red spruce, paper birch and heart leaved paper birch throughout. Where windthrow has created individual tree tip-ups and created increased light conditions at the forest floor, herbaceous plants are generally dense. Where closed canopy conditions occur, there is little herbaceous vegetation present, consisting generally of shade-tolerant species such as bluebead lily and small areas of clubmoss. Some of the canopy trees were noted for stunted or partially stunted growth form, however no strong/significant stunting is present; this is not surprising, given that the Study Area occurs at the northernmost extent, at the lowest elevation of this mapped community and not within the central core of the forest community block, which is located further south outside of the Project area and at higher elevations generally above 3,000 feet elevation.

It is also notable that the existing condition of the Subalpine Fir Forest community in the Study Area has been impacted by previous and ongoing disturbances. The MNAP polygon is drawn up to the edge of existing ski resort infrastructure and trail clearing, and so the edge effect from cleared areas along the Subalpine Fir Forest has altered the vegetation structure near the mapped boundary of the community within the Study Area. There was also scattered litter, assumed to be from ski resort users, observed in portions of the Subalpine Fir Forest in proximity to cleared/developed portions of the resort.

In April of 2021, MNAP provided mapping of the current extent of the Subalpine Fir Forest that intersects with West Mountain, based on mapping completed by MNAP biologists in the Fall of 2020. The 2020 ground truthing was only done for the area around the proposed ski trails, not the entirety of the larger polygon. This application's analysis and mapping utilizes this updated mapping.

9.C Potential Impacts and Mitigation

9.C.1 RTE Plants

Based on agency consultation and field surveys, no state-protected plants species have been documented in the vicinity of the proposed Project area. If an RTE plant species occurrence is observed during construction, the Project will consult with MNAP to identify the necessary impact avoidance, minimization, and mitigation measures.

9.C.2 Natural Communities

The Applicant has designed this Project so as to avoid and minimize impacts to the identified Subalpine Fir Forest habitat to the extent practical, given the Project's goals and existing conditions. This design effort focused on avoidance of this natural community as the primary means to minimize impacts, including clustering the proposed impact areas within a smaller area thereby maintaining contiguous blocks of undisturbed Subalpine Fir Forest that extends beyond the parcel and Project boundary. The Applicant also removed a trail from the Project design that

would have impacted Subalpine Fir Forest habitat and had initially been under consideration when consultations began.

MNAP mapping shows that the polygon of Subalpine Fir Forest within the vicinity of the Project is 1,342 acres. MNAP has estimated that the clearing needed to accommodate the Project will impact approximately 6.3 acres of Subalpine Fir Forest habitat, which represents a small portion (0.5%) of the entire community in this area.

The Applicant is proposing to place a portion of their existing land, which is located at greater than 2,700 feet in elevation, into a permanent easement. The Applicant has proposed an area of approximately 36 acres in an area that has experienced timber management activities and ATV uses in the past that is adjacent to the Appalachian Trail corridor (see Figure 7-2). Agency consultations are on-going as to the utility of this site in terms of meeting any Subalpine Fir Forest mitigation requirements.

APPENDIX 9-1
AGENCY CORRESPONDENCE

July 8, 2020

via electronic-mail

Lisa St. Hilaire
Maine Natural Areas Program
177 State House Station
Augusta, MA 04333-0093

RE: Information Request for Boyne Resorts Sugarloaf West Mountain Project
Carrabassett Valley, Maine

Dear Lisa:

Boyne Resorts, owner of Sugarloaf Mountain Ski Area, is considering a future mixed-use ski terrain/land development project at Sugarloaf Mountain in Carrabassett Valley, Maine that may require permit applications to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and the local municipality. The project would consist of the development of a mixed-use ski facility in the currently undeveloped West Mountain portion of the resort lands to include ski trails, ski lift, skier services and residential real estate ("Project"). Please see the attached USGS map for the proposed project location. The final project layout would be informed by field assessments in order to avoid natural resources.

VHB is requesting, on behalf of Boyne Resorts, information and/or digital data, if available, regarding known locations of state-listed rare and endangered plant species, rare natural communities, unique areas and important natural features, and natural resource concerns known to exist at the proposed project area. If digital data are available, they should be e-mailed to LKeszey@vhb.com. Your information will be used to supplement initial natural resources fieldwork that has been completed to better understand existing conditions, and to understand if further surveys are necessary. Boyne Resorts is also requesting that if further surveys are not warranted, that written correspondence confirming this conclusion be provided. Your correspondence will likely be included in permit applications.

If you have any questions regarding this request, please do not hesitate to contact either of the undersigned by email at LKeszey@vhb.com/(757) 790-9832 or smurphy@vhb.com/ (207) 400-6161. Thank you very much.

Sincerely,
Vanasse Hangen Brustlin, Inc.

Levi Keszey
Ecologist

Sean Murphy
Senior Project Manager

Attachment – Site Location Map

\\vhb\gbl\proj\sportland\55310.00 boyne sugarloaf w mtn\docs\letters\mnap review\mnap_sugarloaf w mtn_info req_draft.docx

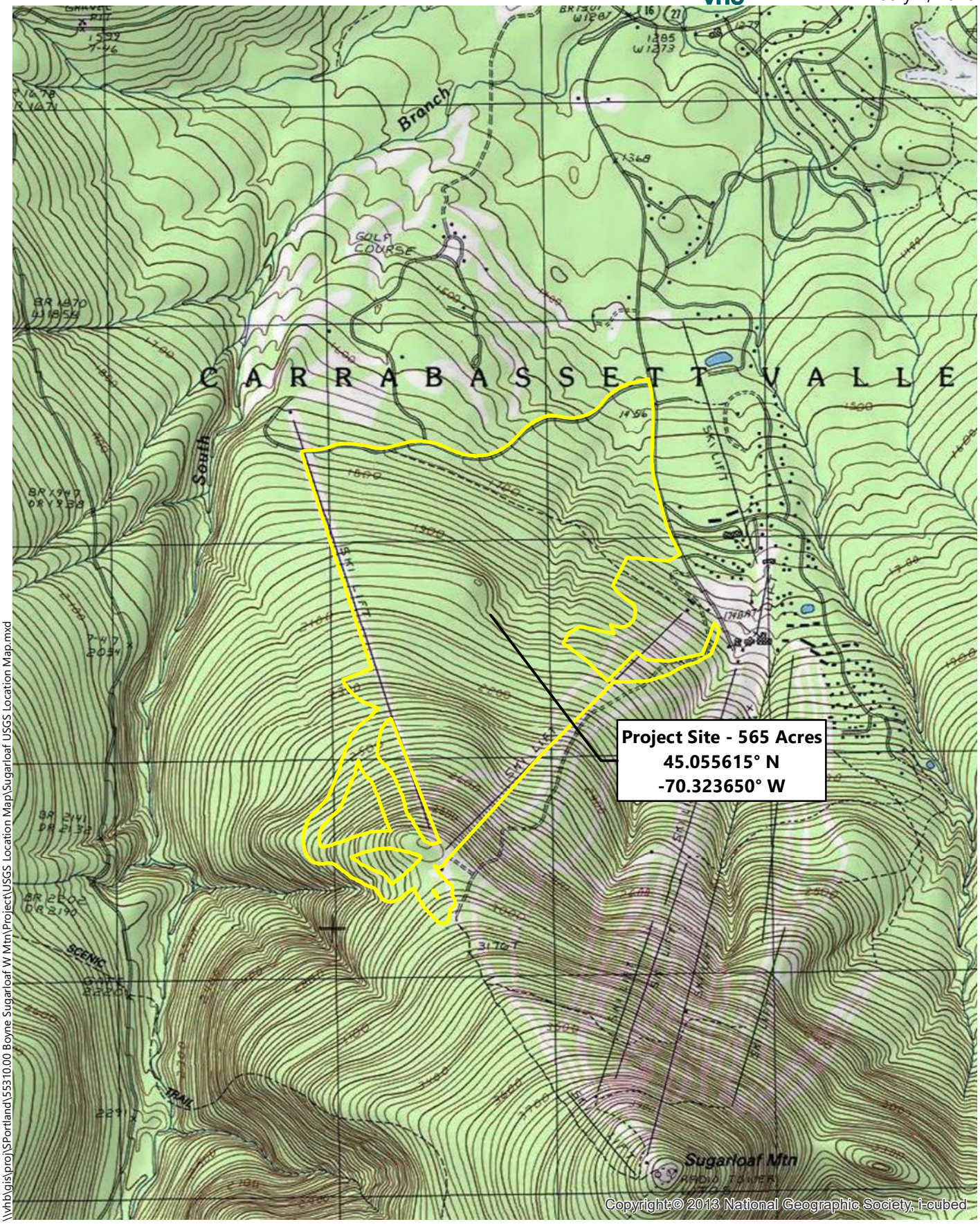
Engineers | Scientists | Planners | Designers

500 Southborough Dr.
Suite 105B
South Portland, Maine 04106
P 207.889.3150
F 207.253.5596

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

July 7, 2020



\\vhb\gis\proj\SPortland\55310.00 Boyne Sugarloaf W Mtn\Project\USGS Location Map\Sugarloaf USGS Location Map.mxd

0 1,000 2,000 4,000 Feet

Project Area (VHB)

Sugarloaf West Mountain | **Carrabassett Valley, Maine**

Location Map

Sources:
USA Topo Basemap - Copyright:© 2013 National Geographic Society, i-cubed

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

July 10, 2020

Sean Murphy
VHB
500 Southborough Drive, Suite 105B
South Portland, ME 04106

Via email: smurphy@vhb.com

Re: Rare and exemplary botanical features in proximity to: Proposed Boyne Resorts Sugarloaf West Mountain Project, Carrabassett Valley, Maine

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received July 8, 2020, with updated mapping for the project received January 30, 2020 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Carrabassett Valley, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, the higher elevation areas in the southwestern corner of the project include portions of a mapped Subalpine Fir Forest, a rare forest type in Maine. Please see the attached map, shapefile included with the email response, and attached factsheet for more information about this Subalpine Fir Forest. MNAP recommends avoiding any additional cutting outside of previously cleared areas above 2700-feet elevation within this project area. If there is to be any clearing associated with the ski trails, ski lift, skier services, residential real estate, or any other aspect of this project within 250 feet of the mapped Subalpine Fir Forest, MNAP requests a more detailed site plan and a site visit so that we may better comment on how the proposed activities may affect the Subalpine Fir Forest at this location.

Feature	State Status	State Rank	Global Rank	Occurrence Rank	Site
Subalpine Fir Forest	N/A	S3	GNR	B Good	Sugarloaf Mountain

In addition, if a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area,

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

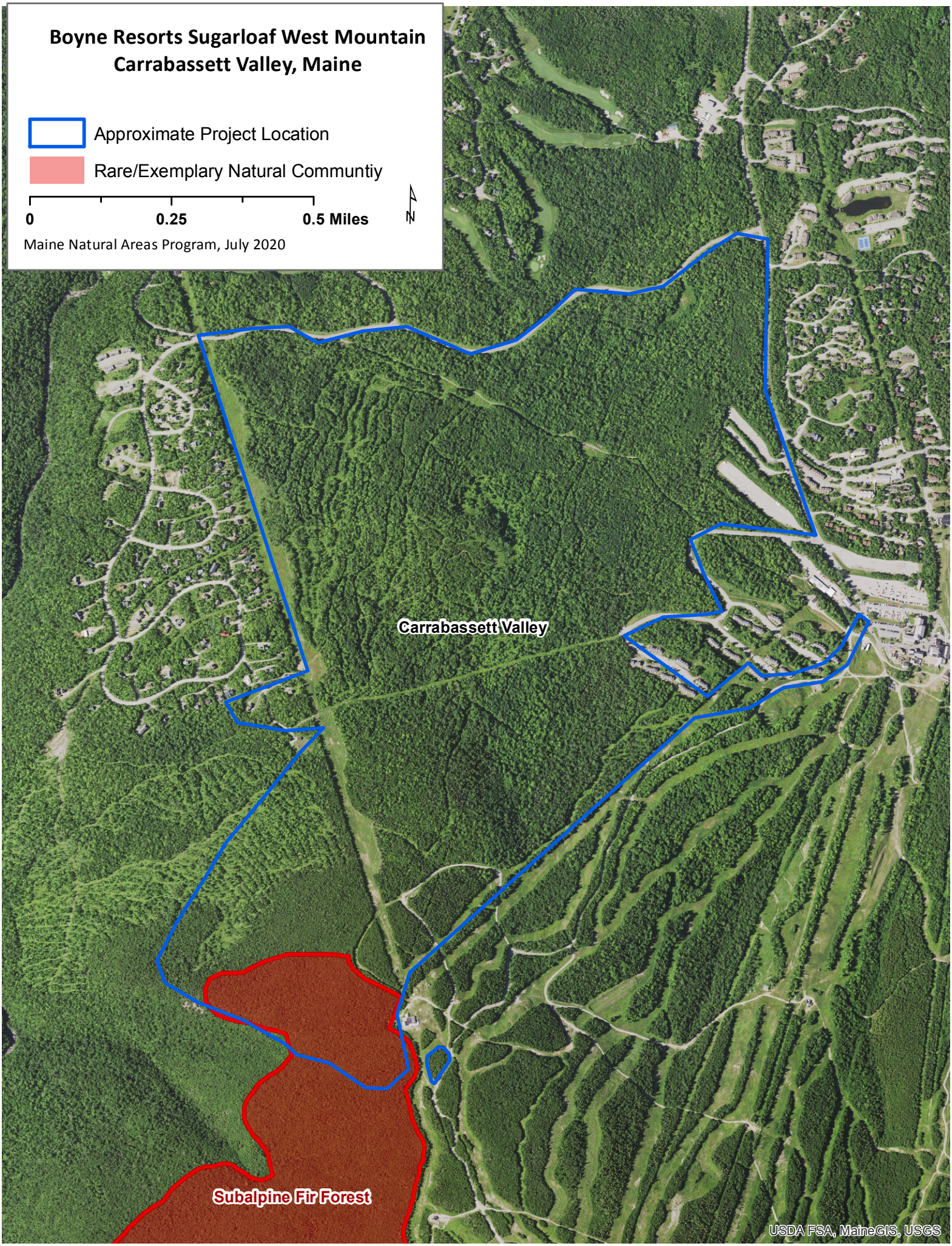
The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for three hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov


Boyne Resorts Sugarloaf West Mountain
Carrabassett Valley, Maine
Approximate Project Location
Rare/Exemplary Natural Communtiy
0
0.25
0.5 Miles
N
Maine Natural Areas Program, July 2020
Carrabassett Valley
Subalpine Fir Forest
USDA FSA, MaineGIS, USGS

Subalpine Fir Forest

Fir - Heart-leaved Birch Subalpine Forest

State Rank S3

Community Description

Balsam fir, or mixtures of fir and heart-leaved birch, form a dense canopy of somewhat stunted trees. Patches of heart-leaved birch and mountain ash are common where wind, fire, or landslides have created openings, along with a dense shrub layer of mountain ash, hobblebush, and regenerating fir. Herbs may be sparse, or may form locally dense patches in openings; wood ferns and big-leaved aster in particular tend to be patchy. In some expressions of this type that have developed after fire, the canopy consists almost entirely of paper birch or heart-leaved birch. Fir waves, an unusual landscape pattern of linear bands of fir dieback and regeneration, are another variant of this community.

Soil and Site Characteristics

These forests are commonly found above 2700' on level ridgetops and steep, upper slopes. The mineral soil layer is thin, typically 10-30 cm, and rocky. Natural disturbances such as landslides, wind, fire, and spruce-budworm can exert lasting influences on community dynamics. Recurrent landslides can keep some areas in birch - mountain-ash dominance.

Fir Waves on Crocker Mountain

Diagnostics

Fir or heart-leaved birch (occasionally paper birch) are dominant in a subalpine setting.

Similar Types

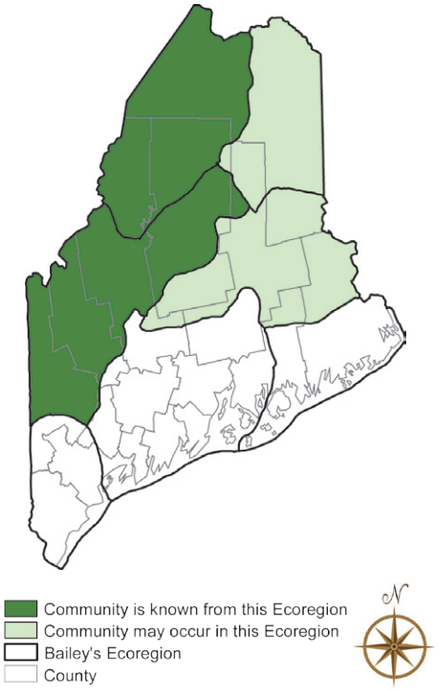
One form of the Maritime Spruce - Fir Forest type is compositionally very similar but occurs at sea level in the extreme environment of the Downeast coast. Decreasing in elevation, this type can grade into Spruce - Fir - Wood-sorrel - Feather-moss Forest or Spruce - Fir - Broom-moss Forest, which are distinguished by their higher proportion of spruce in the canopy and by less stunted trees.

Conservation, Wildlife, and Management Considerations

Although subalpine forests are naturally dynamic as they cycle through periods of weather and insect damage and regeneration, they appear to be relatively stable in overall extent and are extensive on Maine's higher mountains. Many major occurrences are well protected within public lands or private conservation lands. On the few remaining sites on private lands, timber harvesting, recreation, and windpower development could cause lasting impacts. At some sites, past harvesting has resulted in prolific growth of hay-scented and mountain wood fern, inhibiting tree regeneration.

This high-elevation forest community type may be used as nesting habitat by a number of high elevation and/or coniferous forest specialist bird species, such as the spruce grouse, dark-eyed junco, bay-breasted warbler, black-backed woodpecker, white-throated sparrow, and blackpoll warbler. The rare Bicknell's thrush inhabits structurally complex forests above 2500'. The rock vole and long-tailed shrew both inhabit cool moist crevices in rocky habitat at high elevations. Northern bog lemmings may inhabit wet sub-alpine spruce - fir forests in which peat moss is present.

Location Map



Distribution

Western and central Maine westward (New England - Adirondack Province); likely extends northeasterly to the Gaspé Peninsula.

Landscape Pattern: Large Patch

Subalpine Fir Forest

Characteristic Plants

These plants are frequently found in this community type. Those with an asterisk are often diagnostic of this community.

Canopy

Balsam fir*
Heart-leaved paper birch
Paper birch*
Red spruce

Sapling/shrub

Balsam fir*
Black spruce*
Heart-leaved paper birch*
Mountain ash*
Wild-raisin

Herb

Balsam fir*
Big-leaved aster*
Bluebead lily
Mountain wood fern*
Northern wood-sorrel
Spinulose wood fern*
Starflower

Bryoid

Common broom-moss
Three-lobed bazzania

Associated Rare Plants

Northern comandra

Examples on Conservation Lands You Can Visit

- Baxter State Park – Piscataquis Co.
- Big Squaw Mountain Public Lands – Piscataquis Co.
- Bigelow Preserve Public Lands – Somerset Co.
- Crocker Mountain, Appalachian Trail – Franklin Co.
- Mahoosuc Mountain, Mahoosuc Public Lands – Oxford Co.
- Sugarloaf Mountain, Appalachian Trail – Franklin Co.

Rare and Exemplary Botanical Features within 4 miles of
Project: Boyne Resorts, Sugarloaf West Mountain Project, Carrabassett Valley, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Auricled Twayblade						
	T	S2	G3G4	1896-08-20	16	Non-tidal rivershore (non-forested, seasonally wet),Forested wetland
	T	S2	G3G4	1978	28	Non-tidal rivershore (non-forested, seasonally wet),Forested wetland
Bigelow's Sedge						
	SC	S2	G5	2010-10-28	6	Alpine or subalpine (non-forested, upland)
Black Sedge						
	SC	S2S3	G5	2001-08-14	25	Non-tidal rivershore (non-forested, seasonally wet),Alpine or subalpine (non-forested, upland)
	SC	S2S3	G5	2015-07-31	13	Non-tidal rivershore (non-forested, seasonally wet),Alpine or subalpine (non-forested, upland)
Broad Beech Fern						
	SC	S2	G5	1991-06	16	Hardwood to mixed forest (forest, upland)
Bulrush Sedge						
	SC	S2	G5	2001-08-14	9	Rocky summits and outcrops (non-forested, upland),Non-tidal rivershore (non-forested, seasonally wet)
	SC	S2	G5	2015-08-03	5	Rocky summits and outcrops (non-forested, upland),Non-tidal rivershore (non-forested, seasonally wet)
Circumneutral Outcrop						
	<null>	S2	GNR	2009	10	Rocky summits and outcrops (non-forested, upland)
	<null>	S2	GNR	2015-06-10	5	Rocky summits and outcrops (non-forested, upland)
	<null>	S2	GNR	2010-09-24	11	Rocky summits and outcrops (non-forested, upland)
Cold-air Talus Slope						
	<null>	S2	G3G5	2010-09-24	7	Rocky summits and outcrops (non-forested, upland)
Common Butterwort						
	E	S1	G5	2015-08-03	1	Rocky summits and outcrops (non-forested, upland)
Grassy Shrub Marsh						

Rare and Exemplary Botanical Features within 4 miles of
Project: Boyne Resorts, Sugarloaf West Mountain Project, Carrabassett Valley, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	<null>	S5	GNR	1996-08-08	14	Open wetland, not coastal nor rivershore (non-forested, wetland),Coastal non-tidal wetland (non-forested, wetland)
Hairy Arnica						
	T	S2	G3	1919-07-09	18	Alpine or subalpine (non-forested, upland),Non-tidal rivershore (non-forested, seasonally wet)
Heath Alpine Ridge						
	<null>	S2	GNR	2010-10-28	8	Alpine or subalpine (non-forested, upland)
Lesser Wintergreen						
	SC	S2	G5	2016-07-03	10	Conifer forest (forest, upland)
	SC	S2	G5	2011-08-21	2	Conifer forest (forest, upland)
Mid-elevation Bald						
	<null>	S3	G2G3	2010-10-28	16	Rocky summits and outcrops (non-forested, upland),Alpine or subalpine (non-forested, upland)
Mountain Firmoss						
	SC	S2	G5	2010-10-28	19	Rocky summits and outcrops (non-forested, upland),Alpine or subalpine (non-forested, upland)
	SC	S2	G5	2015-07-31	13	Rocky summits and outcrops (non-forested, upland),Alpine or subalpine (non-forested, upland)
Neglected Reed Grass						
	T	S2	G5T5	2001-08-14	10	Non-tidal rivershore (non-forested, seasonally wet)
Northern Comandra						
	SC	S3	G5	1999-07-21	20	Coastal non-tidal wetland (non-forested, wetland),Alpine or subalpine (non-forested, upland)
Northern Firmoss						
	T	S2	G5	1999-07-21	3	Rocky summits and outcrops (non-forested, upland)
	T	S2	G5	2006-06-25	9	Rocky summits and outcrops (non-forested, upland)
Northern Hardwoods Forest						

Rare and Exemplary Botanical Features within 4 miles of
Project: Boyne Resorts, Sugarloaf West Mountain Project, Carrabassett Valley, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	<null>	S5	G3G5	2015-07-13	57	Hardwood to mixed forest (forest, upland)
Pale Green Orchis						
	SC	S2	G4?T4Q	1923-07	15	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland)
Spruce - Fir Krummholz						
	<null>	S3	GNR	2010-10-28	7	Alpine or subalpine (non-forested, upland)
Subalpine Fir Forest						
	<null>	S3	GNR	2012-09-11	15	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
	<null>	S3	GNR	2015-06-10	12	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Subalpine Hanging Bog						
	<null>	S1	G3G5	2009	2	Alpine or subalpine (non-forested, upland)
	<null>	S1	G3G5	2009-06-18	1	Alpine or subalpine (non-forested, upland)

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SU Under consideration for assigning rarity status; more information needed on threats or distribution.

SNR Not yet ranked.

SNA Rank not applicable.

S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

GNR Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

APPENDIX 9-2
FLORISTIC SURVEY LISTING

Species Checklist - Partial Floristic Inventory

Project: Sugarloaf West
Client: Boyne Resorts/Sugarloaf Mountain
Location: Carrabassett Valley, Maine
Surveyed By: VHB (C. Fenner, M. Jackman, L. Keszey)
Survey Date(s): June 8-12, 2020; June 22-26, 2020; August 8-10, 2020
Prepared By: VHB - August 15, 2020

Scientific Name [1]	Common Name(s)	Family	Federally Threatened or Endangered (T, E)	Maine Threatened or Endangered (T, E)	Maine Rare or Uncommon (R, U)
Abies balsamea (L.) Mill.	balsam fir	Pinaceae			
Acer pensylvanicum L.	striped maple	Aceraceae			
Acer rubrum L.	red maple	Aceraceae			
Acer saccharum Marshall	sugar maple	Aceraceae			
Acer spicatum Lam.	mountain maple	Aceraceae			
Achillea millefolium L.	common yarrow	Asteraceae			
Actaea pachypoda Elliott	white baneberry	Ranunculaceae			
Agrostis gigantea Roth	redtop	Poaceae			
Agrostis scabra Willd.	rough bentgrass	Poaceae			
Agrostis stolonifera L.	creeping bentgrass	Poaceae			
Alnus incana (L.) Moench	gray alder	Betulaceae			
Amelanchier bartramiana (Tausch) M. Roem.	oblongfruit serviceberry	Rosaceae			
Anaphalis margaritacea (L.) Benth.	western pearly everlasting	Asteraceae			
Anthoxanthum odoratum L.	sweet vernalgrass	Poaceae			
Aquilegia canadensis L.	red columbine	Ranunculaceae			
Aralia nudicaulis L.	wild sarsaparilla	Araliaceae			
Arisaema triphyllum (L.) Schott	Jack in the pulpit	Araceae			
Asclepias incarnata L.	swamp milkweed	Asclepiadaceae			
Athyrium filix-femina (L.) Roth ssp. angustum (Willd.) R.T. Clausen	subarctic ladyfern	Dryopteridaceae			
Barbarea vulgaris W.T. Aiton	garden yellowrocket	Brassicaceae			
Betula alleghaniensis Britton	yellow birch	Betulaceae			
Betula cordifolia Regel	Heart-leaved paper birch	Betulaceae			
Betula papyrifera Marshall	paper birch	Betulaceae			
Betula populifolia Marshall	gray birch	Betulaceae			
Bromus inermis Leyss.	smooth brome	Poaceae			
Calamagrostis canadensis (Michx.) P. Beauv.	bluejoint	Poaceae			
Cardamine diphylla (Michx.) Alph. Wood	crinkleroot	Brassicaceae			
Cardamine pensylvanica Muhl. ex Willd.	Pennsylvania bittercress	Brassicaceae			
Carex blanda Dewey	eastern woodland sedge	Cyperaceae			
Carex communis L.H. Bailey	fibrousroot sedge	Cyperaceae			
Carex flava L.	yellow sedge	Cyperaceae			
Carex gracillima Schwein.	graceful sedge	Cyperaceae			
Carex gynandra Schwein.	nodding sedge	Cyperaceae			
Carex intumescens Rudge	greater bladder sedge	Cyperaceae			
Carex leptonervia (Fernald) Fernald	nerveless woodland sedge	Cyperaceae			
Carex lurida Wahlenb.	shallow sedge	Cyperaceae			
Carex pensylvanica Lam.	Pennsylvania sedge	Cyperaceae			
Carex rosea Schkuhr ex Willd.	rosy sedge	Cyperaceae			
Carex scoparia Schkuhr ex Willd.	broom sedge	Cyperaceae			
Carex stipata Muhl. ex Willd.	awlfruit sedge	Cyperaceae			
Carex tincta (Fernald) Fernald	tinged sedge	Cyperaceae			
Carex trisperma Dewey	threeseeded sedge	Cyperaceae			
Caulophyllum thalictroides (L.) Michx.	blue cohosh	Berberidaceae			
Cerastium arvense L.	field chickweed	Caryophyllaceae			
Chelone glabra L.	white turtlehead	Scrophulariaceae			
Chenopodium album L.	lambsquarters	Chenopodiaceae			
Cinna arundinacea L.	sweet woodreed	Poaceae			
Clematis virginiana L.	devil's darning needles	Ranunculaceae			
Clintonia borealis (Aiton) Raf.	bluebead	Liliaceae			
Coptis trifolia (L.) Salisb.	threeleaf goldthread	Ranunculaceae			
Corallorhiza trifida Chatelain	yellow coralroot	Orchidaceae			
Cornus amomum Mill.	silky dogwood	Cornaceae			
Cornus canadensis L.	bunchberry dogwood	Cornaceae			
Cornus racemosa Lam.	gray dogwood	Cornaceae			
Corylus cornuta Marshall	beaked hazelnut	Betulaceae			
Dactylis glomerata L.	orchardgrass	Poaceae			
Danthonia spicata (L.) P. Beauv. ex Roem. & Schult.	poverty oatgrass	Poaceae			
Daucus carota L.	Queen Anne's lace	Apiaceae			
Dennstaedtia punctilobula (Michx.) T. Moore	eastern hayscented fern	Dennstaedtiaceae			
Deschampsia cespitosa (L.) P. Beauv.	tufted hairgrass	Poaceae			

Scientific Name [1]	Common Name(s)	Family	Federally Threatened or Endangered (T, E)	Maine Threatened or Endangered (T, E)	Maine Rare or Uncommon (R, U)
Deschampsia flexuosa (L.) Trin.	wavy hairgrass	Poaceae			
Diervilla lonicera Mill.	northern bush honeysuckle	Caprifoliaceae			
Drosera rotundifolia L.	roundleaf sundew	Droseraceae			
Dryopteris campyloptera Clarkson	mountain woodfern	Dryopteridaceae			
Dryopteris carthusiana (Vill.) H.P. Fuchs	spinulose woodfern	Dryopteridaceae			
Dryopteris intermedia (Muhl. ex Willd.) A. Gray	intermediate woodfern	Dryopteridaceae			
Dryopteris marginalis (L.) A. Gray	marginal woodfern	Dryopteridaceae			
Dulichium arundinaceum (L.) Britton	three-way sedge	Cyperaceae			
Eleocharis obtusa (Willd.) Schult.	blunt spikerush	Cyperaceae			
Epipactis helleborine (L.) Crantz	broadleaf helleborine	Orchidaceae			
Equisetum scirpoides Michx.	dwarf scouringrush	Equisetaceae			
Equisetum sylvaticum L.	woodland horsetail	Equisetaceae			
Erigeron annuus (L.) Pers.	eastern daisy fleabane	Asteraceae			
Erigeron philadelphicus L.	Philadelphia fleabane	Asteraceae			
Euthamia graminifolia (L.) Nutt.	flat-top goldentop	Asteraceae			
Eutrochium maculatum (L.) E.E. Lamont	spotted joe pye weed	Asteraceae			
Fagus grandifolia Ehrh.	American beech	Fagaceae			
Festuca subverticillata (Pers.) Alexeev	nodding fescue	Poaceae			
Fragaria vesca L.	woodland strawberry	Rosaceae			
Fraxinus americana L.	white ash	Oleaceae			
Fraxinus pennsylvanica Marshall	green ash	Oleaceae			
Galium aparine L.	stickywilly	Rubiaceae			
Galium mollugo L.	false baby's breath	Rubiaceae			
Galium palustre L.	common marsh bedstraw	Rubiaceae			
Glyceria melicaria (Michx.) F.T. Hubbard	melic mannagrass	Poaceae			
Glyceria striata (Lam.) Hitchc.	fowl mannagrass	Poaceae			
Gymnocarpium dryopteris (L.) Newman	western oakfern	Dryopteridaceae			
Hamamelis virginiana L.	American witchhazel	Hamamelidaceae			
Hepatica nobilis Schreb. var. obtusa (Pursh) Steyerm.	roundlobe hepatica	Ranunculaceae			
Hieracium aurantiacum L.	orange hawkweed	Asteraceae			
Hieracium caespitosum Dumort.	meadow hawkweed	Asteraceae			
Hieracium paniculatum L.	Allegheny hawkweed	Asteraceae			
Hieracium pilosella L.	mouseear hawkweed	Asteraceae			
Houstonia caerulea L.	azure bluet	Rubiaceae			
Hydrocotyle americana L.	American marshpennywort	Apiaceae			
Iris versicolor L.	harlequin blueflag	Iridaceae			
Juncus effusus L.	common rush	Juncaceae			
Juncus tenuis Willd.	poverty rush	Juncaceae			
Lactuca canadensis L.	Canada lettuce	Asteraceae			
Ledum groenlandicum Oeder	bog Labrador tea	Ericaceae			
Leontodon autumnalis L.	fall dandelion	Asteraceae			
Lonicera canadensis W. Bartram ex Marshall	American fly honeysuckle	Caprifoliaceae			
Lonicera morrowii A. Gray	Morrow's honeysuckle	Caprifoliaceae			
Lotus corniculatus L.	bird's-foot trefoil	Fabaceae			
Luzula multiflora (Ehrh.) Lej.	common woodrush	Juncaceae			
Lychnis flos-cuculi L.	ragged robin	Caryophyllaceae			
Lycopodium complanatum L.	groundcedar	Lycopodiaceae			
Lycopodium clavatum L.	running clubmoss	Lycopodiaceae			
Lycopodium lagopus (Laest. ex Hartm.) Zinserl. ex Kuzen	one-cone clubmoss	Lycopodiaceae			
Lycopus americanus Muhl. ex W.P.C. Barton	American water horehound	Lamiaceae			
Lycopus uniflorus Michx.	northern bugleweed	Lamiaceae			
Lysimachia ciliata L.	fringed loosestrife	Primulaceae			
Maianthemum canadense Desf.	Canada mayflower	Liliaceae			
Maianthemum racemosum (L.) Link	feathery false lily of the valley	Liliaceae			
Matteuccia struthiopteris (L.) Todaro	ostrich fern	Dryopteridaceae			
Medeola virginiana L.	Indian cucumber	Liliaceae			
Mitchella repens L.	partridgeberry	Rubiaceae			
Monotropa uniflora L.	Indianpipe	Monotropaceae			
Oclemena acuminata (Michx.) Greene	whorled wood aster	Asteraceae			
Oenothera perennis L.	little evening primrose	Onagraceae			
Onoclea sensibilis L.	sensitive fern	Dryopteridaceae			
Oryzopsis asperifolia Michx.	roughleaf ricegrass	Poaceae			
Osmunda cinnamomea L.	cinnamon fern	Osmundaceae			
Osmunda claytoniana L.	interrupted fern	Osmundaceae			
Ostrya virginiana (Mill.) K. Koch	hophornbeam	Betulaceae			
Oxalis acetosella auct. non L.	OXMO	Oxalidaceae			
Oxalis montana Raf.	mountain woodsorrel	Oxalidaceae			
Oxalis stricta L.	common yellow oxalis	Oxalidaceae			

Scientific Name [1]	Common Name(s)	Family	Federally Threatened or Endangered (T, E)	Maine Threatened or Endangered (T, E)	Maine Rare or Uncommon (R, U)
Packera aurea (L.) Á. Löve & D. Löve	golden ragwort	Asteraceae			
Phalaris arundinacea L.	reed canarygrass	Poaceae			
Phegopteris connectilis (Michx.) Watt	long beechfern	Thelypteridaceae			
Phleum pratense L.	timothy	Poaceae			
Picea mariana (Mill.) Britton, Sterns & Poggenb.	black spruce	Pinaceae			
Picea rubens Sarg.	red spruce	Pinaceae			
Plantago lanceolata L.	narrowleaf plantain	Plantaginaceae			
Poa saltuensis Fernald & Wiegand	oldpasture bluegrass	Poaceae			
Populus tremuloides Michx.	quaking aspen	Salicaceae			
Potentilla simplex Michx.	common cinquefoil	Rosaceae			
Prenanthes altissima L.	tall rattlesnakeroot	Asteraceae			
Prenanthes trifoliolata (Cass.) Fernald	gall of the earth	Asteraceae			
Prunus pensylvanica L. f.	pin cherry	Rosaceae			
Pteridium aquilinum (L.) Kuhn	western brackenfern	Dennstaedtiaceae			
Pyrola chlorantha Sw.	greenflowered wintergreen	Pyrolaceae			
Pyrola elliptica Nutt.	waxflower shinleaf	Pyrolaceae			
Ranunculus acris L.	tall buttercup	Ranunculaceae			
Ranunculus repens L.	creeping buttercup	Ranunculaceae			
Ranunculus recurvatus Poir.	blisterwort	Ranunculaceae			
Rhinanthus minor L.	little yellow rattle	Scrophulariaceae			
Ribes cynosbati L.	eastern prickly gooseberry	Grossulariaceae			
Ribes lacustre (Pers.) Poir.	prickly currant	Grossulariaceae			
Ribes triste Pall.	red currant	Grossulariaceae			
Rubus canadensis L.	smooth blackberry	Rosaceae			
Rubus flagellaris Willd.	northern dewberry	Rosaceae			
Rubus idaeus L.	American red raspberry	Rosaceae			
Rubus occidentalis L.	black raspberry	Rosaceae			
Rubus pubescens Raf.	dwarf red blackberry	Rosaceae			
Rudbeckia hirta L.	blackeyed Susan	Asteraceae			
Salix bebbiana Sarg.	Bebb willow	Salicaceae			
Salix discolor Muhl.	pussy willow	Salicaceae			
Salix lucida Muhl.	shining willow	Salicaceae			
Salix petiolaris Sm.	meadow willow	Salicaceae			
Sambucus nigra L.	black elderberry	Caprifoliaceae			
Scirpus atrovirens Willd.	green bulrush	Cyperaceae			
Scirpus cyperinus (L.) Kunth	woolgrass	Cyperaceae			
Scirpus microcarpus J. Presl & C. Presl	panicled bulrush	Cyperaceae			
Scutellaria L.	skullcap	Lamiaceae			
Sisyrinchium montanum Greene	strict blue-eyed grass	Iridaceae			
Solanum dulcamara L.	climbing nightshade	Solanaceae			
Solidago canadensis L.	Canada goldenrod	Asteraceae			
Solidago gigantea Aiton	giant goldenrod	Asteraceae			
Solidago macrophylla Pursh	largeleaf goldenrod	Asteraceae			
Solidago rugosa Mill.	wrinkleleaf goldenrod	Asteraceae			
Sorbus americana Marshall	American mountain ash	Rosaceae			
Sorghastrum nutans (L.) Nash	Indiangrass	Poaceae			
Spiraea alba Du Roi	white meadowsweet	Rosaceae			
Spiraea tomentosa L.	steeplebush	Rosaceae			
Streptopus lanceolatus (Aiton) Reveal	twistedstalk	Liliaceae			
Symphyotrichum cordifolium (L.) G.L. Nesom	common blue wood aster	Asteraceae			
Symphyotrichum lateriflorum (L.) Á. Löve & D. Löve	calico aster	Asteraceae			
Symphyotrichum puniceum (L.) Á. Löve & D. Löve	purplestem aster	Asteraceae			
Symphyotrichum undulatum (L.) G.L. Nesom	wavyleaf aster	Asteraceae			
Taraxacum officinale F.H. Wigg.	common dandelion	Asteraceae			
Thelypteris noveboracensis (L.) Nieuwl.	New York fern	Thelypteridaceae			
Thelypteris palustris Schott	eastern marsh fern	Thelypteridaceae			
Thuja occidentalis L.	arborvitae	Cupressaceae			
Tiarella cordifolia L.	heartleaf foamflower	Saxifragaceae			
Trientalis borealis Raf.	starflower	Primulaceae			
Trifolium pratense L.	red clover	Fabaceae			
Trifolium repens L.	white clover	Fabaceae			
Trillium erectum L.	red trillium	Liliaceae			
Trillium undulatum Willd.	painted trillium	Liliaceae			
Tsuga canadensis (L.) Carrière	eastern hemlock	Pinaceae			
Tussilago farfara L.	coltsfoot	Asteraceae			
Typha latifolia L.	broadleaf cattail	Typhaceae			
Uvularia sessilifolia L.	sessileleaf bellwort	Liliaceae			
Vaccinium angustifolium Aiton	lowbush blueberry	Ericaceae			

Scientific Name [1]	Common Name(s)	Family	Federally Threatened or Endangered (T, E)	Maine Threatened or Endangered (T, E)	Maine Rare or Uncommon (R, U)
Vaccinium myrtilloides Michx.	velvetleaf huckleberry	Ericaceae			
Vaccinium pallidum Aiton	Blue Ridge blueberry	Ericaceae			
Veratrum viride Aiton	green false hellebore	Liliaceae			
Veronica americana Schwein. ex Benth.	American speedwell	Scrophulariaceae			
Veronica serpyllifolia L.	thymeleaf speedwell	Scrophulariaceae			
Viburnum lantanoides Michx.	hobblebush	Caprifoliaceae			
Viburnum lentago L.	nannyberry	Caprifoliaceae			
Viburnum nudum L.	possumhaw	Caprifoliaceae			
Viburnum opulus L.	European cranberrybush	Caprifoliaceae			
Vicia cracca L.	bird vetch	Fabaceae			
Viola blanda Willd.	sweet white violet	Violaceae			
Viola sororia Willd.	common blue violet	Violaceae			

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

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April 29, 2022

Department of Environmental Protection
Bureau of water Quality, Division of Environmental Assessment
Attn: Jami MacNeil, Project Manager
17 State House Station
Augusta, ME 04333

Subject: Sugarloaf West Mountain Expansion
Response to Soils Comments (#2) Dated 2-11-22

Dear Jami,

VHB and Main-Land has received a memorandum of technical review, on the application for Sugarloaf – West Mountain Expansion, from William Noble dated February 11, 2022. The following letter is intended to address these review comments. It is organized with comments in italics followed by our response on behalf of the Applicant.

4. *This comment item requested reports, when available, on geotechnical investigations that are to be conducted. The response states that these investigations are to be done this summer. It is recommended that submittal of geotechnical reports be included as a condition of site approval.*

   The applicant takes no exception to a condition of approval requiring submittal of geotechnical study reports, as they are obtained, prior to construction of condominium buildings.

6. *A wetlands report has been provided, however, it should be signed by the wetlands investigator responsible for its preparation, as was indicated by this comment. See Part I, Section 1.E.1.c of the site application. The copy found for review was not signed.*

   A signed copy of the wetlands report has been provided as part of this submittal package.

8. *The response to this comment item indicates that 12 underdrained soil filter (UDSF) basins and 4 wetponds are proposed. These stormwater treatment basins have been numbered on plan sheets CG-3.01 through CG-3.08, as was requested. The following are noted:*
   » UDSFs P15 and P16 appear to be mislabeled P16 and P17, which should be corrected on plan sheet CG-3.08.
   » The number for plan sheet CG-3.06 remains missing on the copy available for this review.

   Sheets CG-3.08 and CG-3.06 have been revised as noted and have been provided as part of this submittal package.

9. *Additional information provided in response to this comment item reveals that only six of the proposed stormwater treatment basins have test pits within or near the footprints of these structures, as required by Section 7.D.4 of the Stormwater Management Rules. Additional subsurface information at the stormwater*

basins will not be requested for this project, unless needed by the reviewing DEP stormwater engineer, but the project consultants should be aware of this soil data requirement for future site location and stormwater projects. Note that without data on seasonal high watertable (SHWT) elevations at basin sites, specified elevations of the top edge of impermeable liners at UDSFs (to equal or exceed the SHWT elevation), may not be accurate.
Wetponds that have gravel benches (trenches) and/or outlets below the SHWT should have an impermeable liner along the sides and bottom to preclude groundwater seepage. See Volume III, Chapter 4 of the Stormwater BMPs Technical Design Manual. For wetponds that have test pit data (P1, P11, and P13), the gravel bench appears to be below the SHWT.

The applicant proposes impermeable liners for UDSFs and underdrained gravel trench (benches). Consultants note the requirement for test pit data in pond footprints.

10. *Revisions to the elevation table on plan sheet C1.06 for the UDSFs has been made as indicated by this comment item, however, UDSFs P15 and P16 have been mislabeled P16 and P17 in the table and should be corrected.*
The cross-sections and notes for USDFs and wetponds on C1.06 reference a "low-permeability" material. Details for this material should be provided on the plan sheet (e.g. textural specifications, compaction, moisture-density requirements, ASTM standards, etc.).

    Labelling of UDSFs has been corrected in the table on plan sheet C1.06. Details on impermeable linings have been provided as noted.

12. *The response to this comment item states that a revised Spill Prevention, Control, and Counter-measures (SPCC) plan is currently being completed. If not provided by the time the site location approval is issued, it is recommended that submittal of the SPCC plan be included in the Department Order either as a finding-of-fact or as a condition of approval.*

    The applicant takes no exception to a condition of approval requiring submittal of an updated SPCC plan.

13. *It is recommended that submittal of a blasting plan, and map showing anticipated blasting lo-cations, prior to any blasting activity, be required as a condition of site approval. See this comment item in the 11-30-21 review memo for suggested wording and content of this approval condition.*

    The applicant takes no exception to a condition of approval requiring submittal of a blasting plan and map showing blasting locations, prior to any blasting activity.

Revised plans and submittals address remaining comments as noted above. These documents are itemized as part of the larger submittal package.

Please do not hesitate to call or email with questions regarding this submission. The Applicant looks forward to further coordination DEP staff as project review continues.

Sincerely,

Main-Land Development Consultants, Inc.

Richard Dunton, P.E.
Director of Engineering

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APPENDICES

APPENDIX 12-1: PRE- AND POST-DEVELOPMENT DRAINAGE PLANS
SITE DETAILS
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SECTION 12. STORMWATER MANAGEMENT

This section summarizes the stormwater management analysis conducted for the proposed Project. The stormwater management system for this development must meet the Basic Standards, General Standards, and Flooding Standards of Chapter 500.

12.A Narrative

12.A.1 Development Location

The West Mountain Project site is an approximately 550-acre tract of land that is roughly bounded by the Sugarloaf Access Road to the east, West Mountain Road to the north, and the existing West Mountain Quad ski lift to the west (the "Site"). The Site lies within the surface watershed of the South Branch of the Carrabassett River, which is not classified as an Urban Impaired Stream as listed in Chapter 502 Stormwater Management Rules. Access to the site will be via new access roads and driveways off of Sugarloaf Access Road, West Mountain Access Road, and Bucksaw Drive.

Existing small perennial and intermittent mountain streams generally flow to the north and east across the Site, through several culverts and one bridge at the Sugarloaf Access Road and West Mountain Road, to South Branch of the Carrabassett River. The Project is not located within a lake watershed; therefore, the Phosphorus Standards do not apply. Streams generally increase in size and flow regime moving from west to east across the site (right to left on the accompanying plan views).

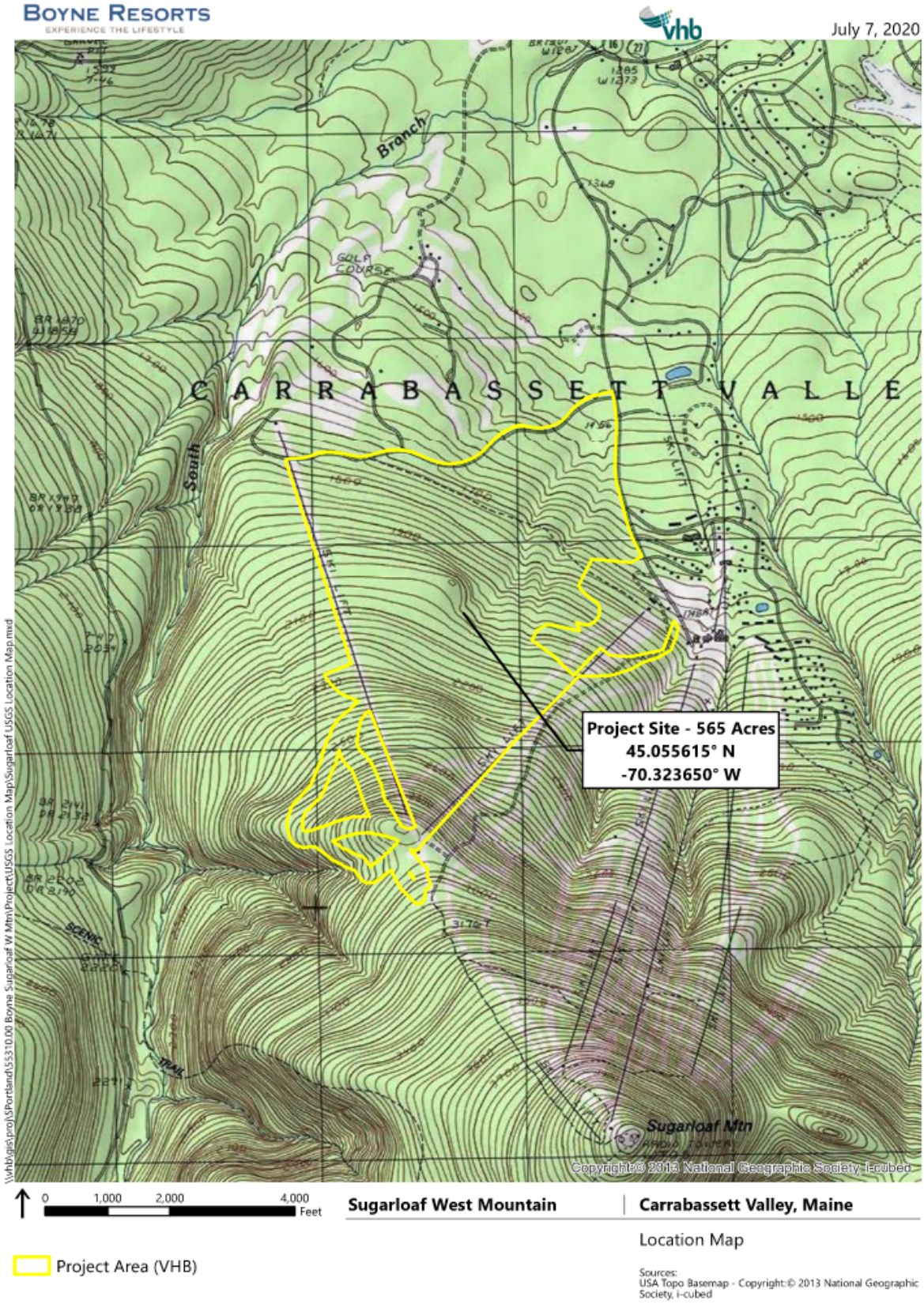
Existing land cover consists primarily of previously logged forest lands at lower elevations within mixed deciduous forests. Higher elevations feature pine/fir species. An existing gravel work road transects the site in the east-west direction with a few scattered clearings and miscellaneous staging areas located along the work road. An existing water main corridor crosses the Site approximately halfway up the slope.

12.A.2 General Topography

The Site ranges in elevation from approximately 3,000 feet above mean sea level (amsl) at its south extent at the top of West Mountain to approximately 1,430 feet amsl at the northeast corner

of the site. Project area topography is fairly steep with slopes ranging from 10% to 45%. Within the portion of the Site to be used for housing development, slopes are in the 12%-20% range. Figure 12-1 below depicts general topography on a USGS quad map. Localized topography around the larger streams includes some gully formations, but the majority of streams onsite are smaller intermittent channels with little gullying.

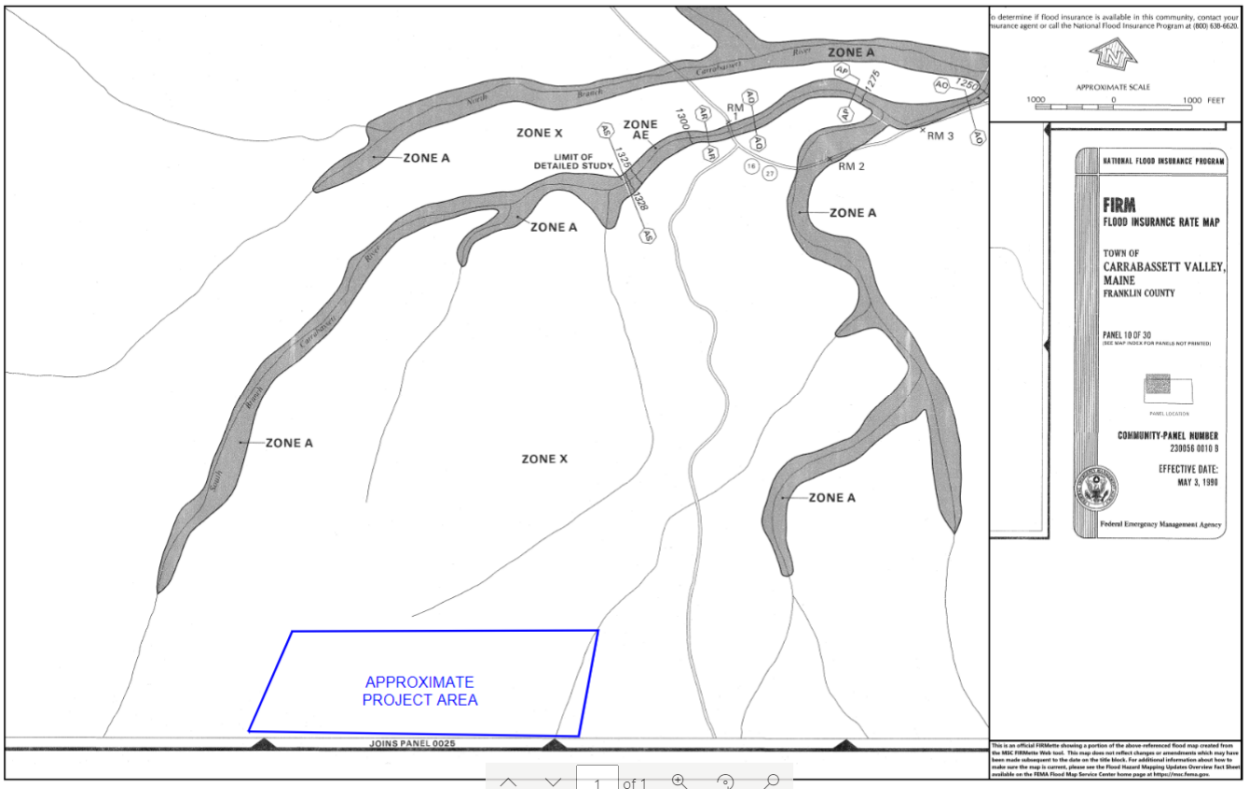
Figure 12-1. Site Location Map



12.A.3 Flooding

The Site where development will occur is located within Zone X (areas determined to be outside of the 0.2% annual chance floodplain) as shown on the Flood Insurance Rate Map 2300560010B, effective May 30, 1990 and 2300560025B, effective May 3, 1990. A copy of the flood zone maps is included in Section 19 of the application.

Figure 12-2. FEMA Floodplain Map



12.A.4 Soils Map

Soil survey mapping, verified by a Maine Certified Soil Scientist, is provided in Section 11: Soils. As determined in the pre-application meeting, high intensity soil survey mapping is only focused on the areas where more dense development is proposed. The medium intensity soil survey mapping obtained from the NRCS *Soil Survey of Franklin County, Maine* was used for the remaining portions of the Site and is included in the drainage plans provided in Appendix 12-1. Additional test pits were also performed on site to verify hydrologic soil type in addition to other soil characteristics in accordance with Chapter 500. These logs are included in Section 11 of the application.

12.A.5 Alterations to Land Cover

Within the Site, approximately 290 acres will be disturbed during the construction of the ski terrain, facilities, parking, condominium and duplex townhome development, as well as roadway, utility, and stormwater management infrastructure. Approximately 20.5 acres of impervious surface will be developed for the ski terrain, skier parking lots, condominium and duplex townhomes and associated parking lots, and roadways serving the single-family lots. Following construction, the areas of proposed ski terrain and the new lift line will be revegetated with grass that will not be mowed more than once per twelve-month period. Due the infrequent mowing and the dense vegetation that is expected to become established at the ski terrain, ski terrain associated with the Project does not meet the definition of a Developed Area as established in Chapter 500. Note that the land cover conversion from HSG D "woods in good condition" CN=77 to ski trail "meadow in good condition" CN=78, itself does not represent a significant increase in runoff generation for proposed trail areas.

Single Family Lots

Because the exact configuration of buildout of the individual 52 single-family homes is not known at this time, the amount of developed area and proposed impervious cover for each of the lots has been assumed based upon lot size and anticipated driveway configuration. These proposed areas are summarized in Table 12-1 and are incorporated into the post-development modeling of Appendix 12-2. For the single-family homes, the amount of developed area and amount of total impervious surface is approximately 20.4 acres and 11.3 acres, respectively, for runoff calculation purposes. Treatment for single family homes will be provided via raingardens, as prescribed on accompanying detail sheet C1.07. The Project will ensure conformance with these assumptions via the Sugarloaf architectural review board and a series of restrictive covenants. These covenants will establish the post-construction stormwater management measures prescribed for the single-family homes as well as the maximum allowable clearing on the land and maximum impervious cover, ESC measures, etc. Prior to development of each single-family lot, the owner will be required to submit for Sugarloaf's approval a plan depicting these features and prepared by a professional engineer registered and licensed in the state of Maine. Sugarloaf and Boyne Resorts have used this approach successfully for similar past projects.

The Applicant wishes to maintain voluntary visual forested 100-foot-wide buffers to the extent practicable along the existing Access Road and West Mountain Road. Stormwater management facilities, skier parking lots and entry points to new Project access roads will be located within this 100-foot buffer where no feasible alternative locations for these facilities is available.

12.B Stormwater Runoff Analysis

12.B.1 Alterations to Natural Drainage Ways

Wherever possible, existing drainage and grading patterns were maintained in the proposed design. Some unavoidable rerouting of flow occurs due to the need to collect, treat, and discharge managed stormwater from a given area that may currently drain to two different culverts under West Mountain Road. In this instance, the goal of the proposed stormwater BMPs is to match or reduce peak flow at any one study point up to the 25-year 24-hour type II event.

The Project utilizes open bottom arch culverts at all significant intermittent or perennial stream channel crossings as part of an effort to preserve aquatic organism passage with the Project area. In addition, 13 existing perched culverts will be removed from existing streams, and the associated stream channel restored.

12.B.2 Modeling Assumptions

VHB analyzed the stormwater runoff characteristics of the proposed Project using the SCS TR-20 methodology. The hydrologic program HydroCAD, as developed by HydroCAD Software Solutions, LLC., was utilized to compute and develop the stormwater runoff model. HydroCAD's SCS TR-20 program is designed to model complex watersheds, such as the watershed analyzed in this report. The complexity of the watershed has been based on multiple land uses (surface conditions) with varying soil conditions and inter-connected subwatersheds reflecting complex hydrologic flow patterns.

The pre-development stormwater analysis consists of twenty-four separate subwatersheds totaling approximately 630 acres in size, approximately two thirds of which are contributing offsite drainage areas. Twenty-four study points (SP1 through SP24) are the analysis points for each of the subwatersheds of the pre- and post-development analysis.

The post-development stormwater analysis consists of the same area, analyzed as one hundred and fifty-four (154) separate subcatchments contributing to the same 24 study points analyzed under pre-development conditions. Times of concentration for offsite areas was changed for pre- to post-development conditions in response to anticipated proposed drainage patterns.

Due to the size of the Project and the stormwater runoff model, this application section does not include modeling of each culvert and stormwater collection line anticipated to be constructed at the site. Certain pipe nodes in the accompanying modeling are still unpopulated with data, pending determination of compliance with treatment standards. Once the proposed stormwater strategy has preliminary approval, the applicant can provide modeling of key pipe crossings and collection and conveyance features as needed for DEP review. It should be noted that short pipe runs contribute very little additional lag time in the model which is not expected to significantly impact modeling results.

12.B.3 Design Storms

VHB analyzed the site and stormwater features during the 2-, 10- and 25-year design storms. These rainfall events are based on a 24-hour storm duration using a Type II distribution curve for Franklin County. The rainfall amounts of 2.4, 3.4, and 4.2 inches, respectively, are taken from Appendix H. of Chapter 500.

12.B.4 Curve Number

VHB developed weighted curve numbers (CN) for each subwatershed based on the different ground covers and hydrologic soil group types found within each area. All curve numbers were based upon the SCS TR-20 methodology and are included in the Stormwater Calculation Package located in Appendix 12-2. As described above it should be noted that that the land cover conversion from HSG D “woods in good condition” CN=77 to ski trail “meadow in good condition” CN=78, itself does not represent a significant increase in runoff generation for proposed trail areas.

12.B.5 Time of Concentration Calculations

VHB calculated the Time of Concentrations (Tc) for each of the individual subwatersheds using the hydraulically most distant point within each area. The length of the sheet flow component of each Tc flow path was estimated using NRCS NEH Chapter 15, equation 15-9 methodology with

site specific ground cover type and slopes of the subcatchment surface, with a maximum length of 100 ft. Due to the large nature and long overland flow paths found at the site, Tc flowpaths within certain large subcatchments have numerous flow segments. The Tc's for concentrated flows are based upon SCS TR-55 methodology and are tabulated in the accompanying HydroCAD output in the Stormwater Calculation Package located in Appendix 12-2. Due to the close spacing of proposed water bars that will redistribute flow from trail surface into the surrounding established wooded terrain, Tc for areas associated with ski terrain waterbars includes a representative segment of sheet flow. Given the small contributing areas for the single-family lots and the short flowpaths associated with them, a direct entry of 6 minutes was used as Tc within the model. This is following the TR-55 Manual, which specifies that the minimum Tc to be used is 0.1 hour (6 minutes).

12.B.6 Drainage Plans

Drainage plans have been developed that show contours, cover types, soil groups, subwatershed boundaries and analysis points, hydrologic flow lines, time of concentration flow lines, existing features, and drainage ways for both pre- and post- development conditions. The Pre-Development Drainage Plan and the Post-Development Drainage Plans for the proposed Project are provided in Appendix 12-2. Due to the relatively large size of the Site, and to allow for intuitive review of the Project drainage patterns, these plans have been provided at 1" =200' scale and 1" =300' scale.

12.B.7 Peak Discharge Runoff Rates

Peak discharge rates are compared at the 24 Study Points along West Mountain Road. A summary of pre- and post-development peak discharge stormwater runoff rates for each analyzed subwatershed is provided in Table 12-6 in the Flooding Standards section 12.E below.

Of the 24 Study Points, only six locations correspond to where a delineated intermittent or perennial stream directly connects to a crossing structure at West Mountain Road. Study Point 1 (SP1) represents the location where the largest onsite stream flows under West Mountain Road. A simple steel beam bridge with wood decking spans this crossing. This is one of two locations associated with a perennial stream, the other being at SP6, which flows through a wetland before crossing under the road in an existing pipe culvert. The remaining stream crossings (SP's 4, 12,

13, 20) are all intermittent streams that cross under the road generally in 18" or 24" diameter metal or HDPE culverts. The remaining SPs are also all 18" to 24" culvert pipes that convey wet weather event flow originating from the Site and surrounding area, but no delineated or intermittent channels are directly connected to these pipes.

12.C Basic Standards

The Basic Standards apply to all projects that require either a Stormwater Management Law or Site Law permit. Erosion and Sedimentation Control, Inspection and Maintenance and Housekeeping standards are required for submission to meet the standard.

12.C.1 Erosion and Sedimentation Control Plan

In accordance with the Basic Standards, stormwater conveyance structures will be designed, constructed, and stabilized using erosion and sedimentation (E&S) BMPs. The Erosion and Sediment Control narrative and plan sheets contains the details and specifications for general stabilization measures to be used during construction and stabilization of the Project. These measures will be used to protect exposed soils during the construction of the Project.

The stabilization measures for the site will include temporary and permanent E&S controls, appropriate design of swales, culverts, and erosion protection for earthen cut and fill slopes. Locations and details of the erosion and sediment control measures and the erosion and sediment control notes are shown on the site plans included in Section 14 of this application package.

12.C.2 Inspection and Maintenance Plan

An Inspection and Maintenance (I&M) Plan has been developed for inspection and corrective actions both during construction and post-construction. The I&M Plan provides the inspection frequency, minimum maintenance and inspection requirements and sample logs. The standalone Inspection and Maintenance Manual is included in Appendix 12-3.

12.C.3 Housekeeping

Housekeeping requirements such as spill prevention and reduction of pollution through groundwater protection, de-watering practices and regulating authorized and non-authorized non-stormwater discharges are addressed either through the Erosion & Sedimentation Control Plan or the Inspection and Maintenance Manual.

12.D General Standards Submissions

The General Standard is required when a project discharging to a non-lake or urban impaired stream, results in more than 1.0-acre of impervious area or 5-acres or more of developed area.

12.D.1 Narrative

A description of the Pre- and Post-development conditions, including alterations to the land cover has been provided in Section 12.A.5.

12.D.2 Drainage Plans

The Pre-Development Drainage Plan and the Post-Development Drainage Plan for the proposed Project are provided in Appendix 12-2.

12.D.3 Calculations

The stormwater best management practices were designed to treat the Water Quality Volume (WQV) based on the criteria outlined in Chapter 500 for pollutant removal and treatment. The requirement includes treating 95% of the impervious area and 80% of the developed area. Linear portions of projects that do not discharge to an urban impaired stream are required to treat 75% of the impervious area and no less than 50% of the developed area.

Due to the challenging topography and slopes present at the Site and challenges associated with treating isolated linear impervious surfaces on steep terrain with HSG C and D series soils, the Project proposes to treat runoff from approximately 0.2 acres of existing West Mountain Road and 3.13 acres of existing impervious surface associated with an untreated gravel parking lot (Lot E) and to use this surface as an offset for proposed isolated roadway and ski terminal impervious surfaces for which treatment is infeasible. From a Water Quality and peak flow mitigation standpoint this approach is favorable because it proposes to address more significant concentrated flows and pollutants from gravel parking lots in lieu of treating new paved roads and two townhome building rooftops which produce much less nutrient and sediment loading and predominantly sheet flow to adjacent vegetated terrain. Compliance with the WQ requirements is demonstrated in Table 12-1 below. Note that on a sitewide average basis the Project exceeds the required treatment for impervious surfaces once the treatment of the existing untreated impervious surfaces is taken into account.

Table 12-1. Project Treatment Summary

Water Quality Treatment Percentages					
		Total Area (Acres)	**Area Treated (Acres)**	**Percent Treated**	**Percent Required**
Non-Linear Portion	Impervious Area	13.4	12.2	91%	95%
	Developed Area	18.3	12.3	67%	80%
Linear Portion	Impervious Area	7.1	4.4	62%	75%
	Developed Area	12.2	6.0	50%	50%
Single Family Lot Development	Impervious Area	11.3	11.3	100%	95%
	Developed Area	20.4	20.4	100%	80%
Offsite Treatment/Mitigation	Impervious Area	3.3	3.3	100%	0%
	Developed Area	-	-	-	-

Total New Impervious (AC)	31.9
Total Impervious Treated (AC)	31.2
Percent Impervious Treated	98%
Total Developed (AC)	50.9
Total Developed Treated (AC)	38.7
Percent Developed Treated	76%

In accordance with Section 4C(2) of Chapter 500, the four proposed wet ponds have been designed to provide 12-hour detention of the runoff volume from the 1-year, 24-hour storm event. This is demonstrated by noting the center of mass detention time exceeds 720 minutes (12 hours) in the accompanying modeling output (Ponds P1, P11, P13, P14). The seven soil filters and six gravel wetlands have been designed with a control orifice placed on the underdrain in order to detain the Water Quality volume over a period of no less than 24 hours and no greater than 48 hours, as required by Section 4a(ii) of Chapter 500. Table 12.2 below summarizes the orifice calculations for the soil filters and gravel wetlands. It is VHB's experience that a 1" diameter orifice is the smallest practicable orifice that can be utilized in stormwater treatment applications.

Table 12-2. Orifice Calculations for Vegetated Soil Filters and Gravel Wetlands

Practice ID	Orifice Information		Water Quality Volume				Channel Protection Volume			
	D (in.)	A (SF)	WQv (CF)	H0/3 (FT)	Q (CFS)	Drawdown Time (hr)	CPv (CF)	H0/3 (FT)	Q (CFS)	Drawdown Time (hr)
P2	1.25	0.009	6,448	2	0.06	30.9	5,619	2	0.06	26.9
P3	1.5	0.012	9,535	2	0.08	31.7	14,462	2	0.08	48.1
P4	1.25	0.009	3,703	1	0.04	25.1	5,314	1	0.04	36.0
P5	1.25	0.009	4,730	1	0.04	32.0	4,225	1	0.04	28.6
P6	1	0.005	2,591	1	0.03	27.4	3,093	1	0.03	32.7
P7	1	0.005	3,814	2	0.04	28.5	7,754	2	0.04	58.0
P8	1	0.005	4,176	2	0.04	31.2	4,400	2	0.04	32.9
P9	1	0.005	2,400	1	0.03	25.4	2,439	1	0.03	25.8
P10	1.5	0.012	8,841	2	0.08	29.4	15,333	2	0.08	51.0
P12	1.25	0.009	5,030	1	0.04	34.1	6,839	1	0.04	46.3
P15	1	0.005	3,403	1	0.03	36.0	3,267	1	0.03	34.6
P16	1.25	0.009	4,050	1	0.04	27.4	5,271	1	0.04	35.7
P17	1.5	0.012	7,729	1	0.06	36.3	6,926	1	0.06	32.6

Tables 12-3 through 12-5 below summarize the sizing criteria that is being used to size the structural stormwater treatment practices for the Project.

Table 12-3. Vegetated Underdrained Soil Filter Sizing Summary

Practice ID	Treatment Areas (AC)				Sediment Trap Volume (CF)	Provided Sediment Trap Volume (CF)	Filter Surface Area (SF)				
	Total	Impervious	Developed	Upgradient			Impervious (5%)	Landscaped (2%)	Upgradient (1%)	Minimum Surface Area	Surface Area Provided
P4	1.5	0.7	0.8	-	39	212	1,510	712	-	2,222	2,868
P5	2.4	0.6	1.8	-	32	150	1,237	1,601	-	2,838	2,838
P6	1.6	0.1	0.4	1.2	6	131	233	315	503	1,052	1,505
P9	1.2	0.3	1.0	-	15	69	588	852	-	1,440	1,440
P12	2.1	0.9	1.2	-	51	167	2,004	1,014	-	3,018	3,018
P15	1.5	0.6	0.9	-	33	195	1,284	758	-	2,042	2,042
P16	1.8	0.6	1.2	-	36	119	1,394	1,036	-	2,430	2,430

Table 12-4. Wet Pond Sizing Summary

Practice ID	Treatment Areas (AC)			Sediment Trap Volume (CF)		Calculated Minimum Volumes (CF)		Proposed Volumes (CF)		Gravel Trench Length (FT)	
	Total	Impervious	Developed	Minimum	Provided	Permanent Pool Volume	CP Volume	Permanent Pool Volume	CP Volume	Required	Provided
P1	11.94	4.06	7.87	226	228	52,363	26,182	54,189	19,882	78.5	100
P11	8.30	3.90	4.40	27	733	41,108	20,554	49,963	23,481	61.7	70
P13	2.92	1.17	1.75	65	233	13,579	6,790	14,847	5,841	20.4	25
P14	7.62	1.81	5.81	101	233	30,032	15,016	31,523	9,202	45.0	50

Table 12-5. Gravel Wetland Sizing Summary

Practice ID	Treatment Areas (AC)				Water Quality Volume (CF)	Forebay Volume (CF)	Filter Surface Area (SF)				
	Total	Impervious	Developed	Upgradient			Impervious (5%)	Landscaped (2%)	Upgradient (1%)	Minimum Surface Area	Surface Area Provided
P2	3.2	0.8	2.4	-	6,448	645	1,784	2,085	-	3,869	1,949
P3	7.0	1.0	4.1	2.0	9,535	953	2,158	3,562	853	6,573	3,287
P7	2.0	0.4	1.5	-	3,814	381	948	1,341	-	2,289	1,451
P8	1.6	0.9	0.7	-	4,176	418	1,883	622	-	2,505	1,253
P10	7.6	1.4	2.6	3.6	8,841	884	3,013	2,291	1,575	6,879	3,440
P17	3.5	1.2	2.2	-	7,729	773	2,699	1,938	-	4,637	2,322

12.D.4 Soil Logs

Efforts were made to anticipate stormwater treatment facility locations during the design process and while the terrain was accessible to tracked excavator for deep test pits. However, despite these efforts, not all proposed stormwater pond locations have a deep test pit exploration due to access challenges in the project terrain. Recent discussions with DEP Stormwater engineers indicated that confirmatory test pitting could be done prior to construction as a condition of approval. Where a stormwater management measure is proposed and a test pit was done, a detailed log is provided which includes relevant soil characteristics, elevation of seasonal high groundwater and bedrock to a depth at least three feet below the lowest component of the stormwater measure. The logs are included as part of the Stormwater Calculation Package located in Appendix 12-2.

12.D.5 Details, Designs and Specifications

The Project proposes to use seven vegetated soil filters, four wet ponds, and six gravel wetlands for stormwater management. Infiltrative practices, while generally desired for runoff reduction purposes, is not feasible at this site due to the heavier underlying Peru and Colonel series soils. Plans depicting the details of the stormwater management measures are provided in Appendix 12-1. Impermeable liners are anticipated to be required due to the low permeability of the native soils.

Due to the challenging terrain and site-specific nature of build out of each lot, the details for which cannot be known at this time, runoff from single-family home lots will be required to provide treatment via individual standalone raingardens designed to meet the Basic and General Standards. Detail Sheet C1.07 included with the site plan in Appendix 12-1 prescribes the raingarden sizing based upon the proposed amount of impervious area for each lot as well as requirements for construction.

12.D.6 Phosphorus Export Calculations

The Project is not located within a lake watershed, and therefore the Phosphorus Standards do not apply.

12.D.7 Maintenance Contract

The responsible party in charge of the inspection and maintenance is documented in the Inspection and Maintenance Manual, included in Appendix 12-3.

12.E Flooding Standards Submissions

The Flooding Standard is required for this Project because it results in 3 acres or more of impervious area or 20 acres or more of developed area and a Site Law permit or modification is required.

12.E.1 Control of Peak Flows

A HydroCAD model using TR-20 methodology was developed to evaluate the existing and proposed drainage conditions on the Site. The pre- and post-development peak discharge values are presented in Table 12-6 below. The Project's approach to conformance with the Flooding Standard utilizes a combination of peak flow mitigation and culvert analysis.

Significant effort has been made to minimize rerouting of runoff within the Project area while still providing protection of proposed ski facilities and roadway infrastructure. The 17 structural stormwater practices have all been designed to significantly detain runoff for storm events up to and including the 25-year, 24-hour event and are represented in the modeling. Treatment practices associated with the single-family home lots have also been represented in the modeling. Peak flow is maintained below pre-development levels at 17 of the 24 study points. The remaining 7 of the 24 study points (4, 6, 11, 12, 16, 20, 24) experience higher peak flows than under existing conditions. Due to existing slopes, streams, and channel locations, additional centrally located stormwater detention practices are challenging to implement without undue environmental impacts or creation of in-stream ponds. These are discussed in further detail below.

The existing culverts at Study Points 4, 11, 16 should have adequate capacity to convey these flows. The provisions of Chapter 500 Section 4F(2)(d) state that the primary access road to the Project shall not be flooded during the 25-year, 24-hour storm event. Upon review of the post development modeling results from this event, VHB recommends replacing 5 existing culverts along West Mountain Road with new enlarged culverts to pass this storm event. These culverts correspond to Study Points 6, 11, 12, 15, and 24 and are depicted on the Project plans.

Receiving channels associated with the Project converge at several locations just downstream of West Mountain Road within lands owned by the Applicant. Peak flow rates at these confluence points are not expected to increase significantly due to balancing of peak flows from reductions achieved at the other contributing discharge points. The applicant will consult with the DEP to determine what modeling, if any, is necessary to demonstrate compliance with the Flooding Standard for areas downstream of these culverts.

Table 12-6. Peak flow summary for 24-hour Type II storms of 2-, 10-, and 25-year return frequency

Study Point	2-YR		10-YR		25-YR	
	Pre-dev.	Post-dev.	Pre-dev.	Post-dev.	Pre-dev.	Post-dev.
SP1	85.8	79.2	203.9	186.8	313.7	291.7
SP2	1.9	0.9	4.2	1.8	6.2	2.7
SP3	1.2	0.3	2.5	0.4	3.6	1.9
SP4	13.8	*20.5*	30.8	*48.3*	47.4	*75.3*
SP5	1.5	1.3	3.2	2.9	4.7	4.3
SP6	11.7	*19.0*	26.3	*45.7*	39.5	*83.3*
SP7	8.9	0.8	20.0	1.7	30.1	2.5
SP8	0.6	0.4	1.1	0.8	1.52	1.1
SP9	2.5	0.2	5.7	0.4	8.7	0.5
SP10	0.7	0.0	1.4	0.0	2.0	0.0
SP11	3.6	*4.3*	8.4	*8.8*	12.8	*12.9*
SP12	3.9	*5.4*	9.0	*13.4*	13.6	*26.9*
SP13	3.4	0.7	8.3	2.5	12.9	12.1
SP14	1.5	1.1	3.5	2.2	5.24	3.2
SP15	6.0	5.5	14.8	13.3	23.1	22.9
SP16	0.5	*1.0*	1.0	*2.1*	1.4	*3.1*
SP17	2.3	2.0	5.7	3.7	8.9	5.2
SP18	0.6	0.3	1.5	0.6	2.3	0.9
SP19	1.9	0.5	4.9	1.1	7.8	1.6
SP20	10.3	*10.6*	24.6	*25.6*	38.1	*40.9*
SP21	1.8	0.3	4.6	0.6	7.2	0.9
SP22	2.9	0.3	6.2	0.5	9.3	0.7
SP23	1.3	0.3	3.0	0.7	4.4	0.9
SP24	4.0	*11.2*	8.4	*23.1*	12.3	*33.7*

12.E.2 Details, Designs and Specifications

Plans depicting the details of the stormwater management measures are provided in Appendix 12-1 as previously noted in Section 12.D.5.

12.F Deed Covenants, Restrictions, or Easements

No deed restriction or covenants are proposed at this time. The Applicant will retain ownership of the land upon which the stormwater treatment practices are to be located.

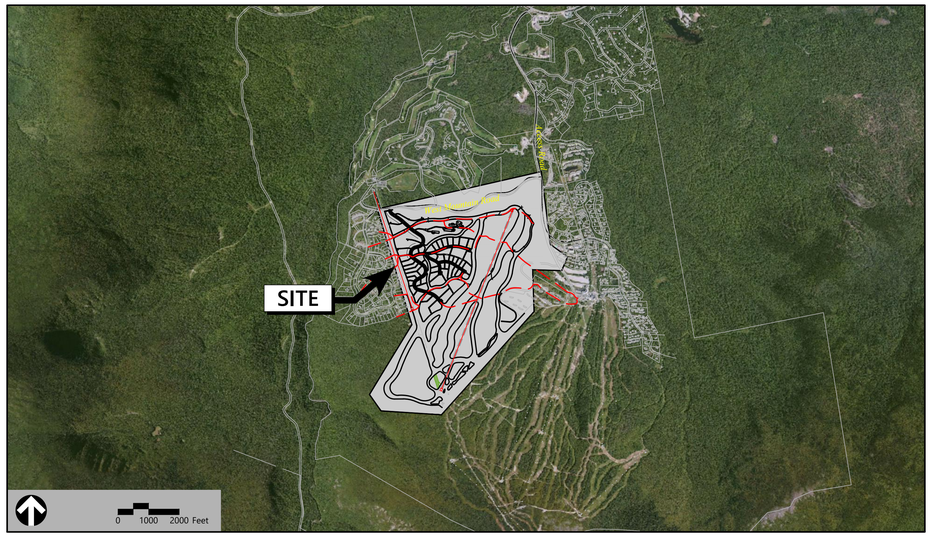
APPENDIX 12-1
PRE- AND POST-DEVELOPMENT DRAINAGE PLANS
SITE AND STORMWATER DETAILS

Site Plans

Issued for	**Review**
Date Issued	**April 29, 2021**
Latest Issue	**April 29, 2021**

Sugarloaf West Mountain Development

5092 Sugarloaf Access Road
Carrabassett Valley, ME 04947



Owner

Sugarloaf Mountain Corporation
c/o Boyne USA, Inc.
3951 Charlevoix Avenue
Petoskey, MI 49770

Applicant

Sugarloaf Mountain Corporation
c/o Boyne USA, Inc.
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~~V-1.04~~	~~Existing Conditions Plan~~
~~C-1.01~~	~~Site Details~~
C-1.02	Site Details
~~C-1.03~~	~~Utility Details~~
~~C-1.04~~	~~Erosion Prevention and Sediment Control Details~~
C-1.05	Erosion Prevention and Sediment Control Details
C-1.06	Stormwater Details
C-1.07	Stormwater Details

Reference Drawings

SD-1 through SD-8 Subdivision Plan of Land, by VHB, Dated August 20, 2021

Notes

Drawings indicated with ~~strike-through~~ are not included with these revised submitted plans.

vhb.com

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STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED PROFESSIONAL ENGINEER

VHB Project : 55310.01 Sugarloaf West Mountain
Issued for : Review 09/24/2021

\\VHB.COM\GBU\PROJ\SPORTLAND\55310.01 SUGARLOAF WEST MOUNTAIN\CADD\PLANSET\55310.01-COV 29 April 2022

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF	BLSF	BORDERING LAND SUBJECT TO FLOODING
BZ	BZ	WETLAND BUFFER ZONE
NDZ	NDZ	NO DISTURB ZONE
200'RA	200'RA	200' RIVERFRONT AREA
		NRCS SOIL LAYER BOUNDARY
		MAYFLY SALAMANDER
		PERENNIAL STREAM
		INTERMITTENT STREAM
		STREAM BUFFER
		WETLAND
		WETLAND OF SPECIAL SIGNIFICANCE
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB AND GUTTER
ECC	ECC	EXTRUDED CONCRETE CURB
MCC	MCC	MONOLITHIC CONCRETE CURB
PCC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
10	10	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC ×	27.35 TC ×	TOP OF CURB ELEVATION
26.85 BC ×	26.85 BC ×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW × 38.5 BW	45.0 TW × 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
E	E	PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
S	S	SEWER MANHOLE CONCENTRIC
S	S	SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GG	GG	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE [##] INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
14. THIS PROJECTY IS SUBJECT TO A PERMIT FROM MAINE DEP. THE CONTRACTOR SHALL READ, BE FAMILIAR WITH, AND SHALL FOLLOW THE MAINE EROSION AND SEDIMENT CONTROL BMPs MANUAL (LATEST EDITION); AND SHALL BE ACCOUNTABLE TO THE THIRD PARTY INSPECTOR FOR THE PROJECT AND THE MAINE DEP IN ACCORDANCE WITH MAINE DEP REGULATIONS.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   A. WATER PIPES SHALL BE [TYPE(S)]
   B. SANITARY SEWER PIPES SHALL BE SDR35 POLYVINYL CHLORIDE (PVC) SEWER PIPE
   C. STORM DRAINAGE PIPES SHALL BE DUAL WALL CORRUGATED HDPE UNLESS OTHERWISE NOTED ON PLANS
   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE [##] FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE [TYPE] WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY [WHOM], [AND FROM PLANS OF RECORD]. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY [WHOM], DURING [DATE(S)]. [OTHER SERVICES].
   A. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY: VHB
   B. FLAGS MARKING THE WETLANDS WERE LOCATED BY: [WHOM] , [HOW]
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON [NGVD DATUM].
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM [NAME].

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by: RWN
Checked by: PS
Issued for: Review
Date: April 29, 2022

Not For Construction

Drawing Title: General Civil Legend and Notes

Drawing Number: G-0.01

Sheet 2 of 63

Project Number: 55310.01

STATE OF MAINE · PETER B. SMIAR · No. 16994 · LICENSED PROFESSIONAL ENGINEER

Saved Friday, April 29, 2022 9:44:40 AM WFRETWELL Plotted Friday, April 29, 2022 11:53:32 AM Robert Nichols

WILDLIFE [BICKNELL'S THRUSH]
ENDANGERED, THREATENED, AND SPECIAL CONCERN WILDLIFE [BICKNELL'S THRUSH]
Trail 10
Upper West Mountain Trail
Trail 9
Trail 4
Trail 5
Trail 1
Hardwood Ridge Road
Fast Track Lane
Buckskaw Drive
Timberline Trail
Trail 3
Trail 2
Ski Back Trail 3
Ski Back Trail 2
Ski Back Trail 1
West Mountain Trail
West Mountain Road
TPB-1
TPB-2
TPB-3
TPB-4
TPB-5
TPB-6
TPB-7
TPC-1
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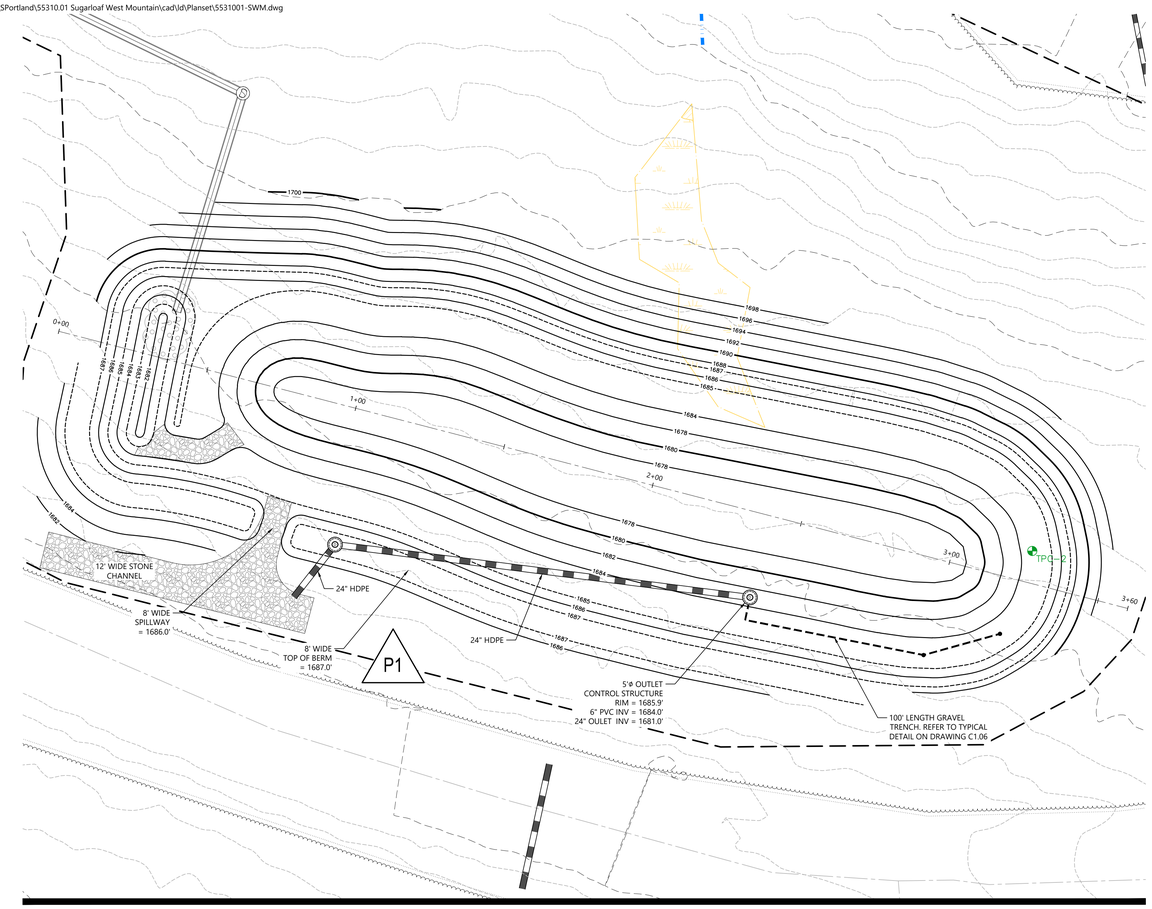
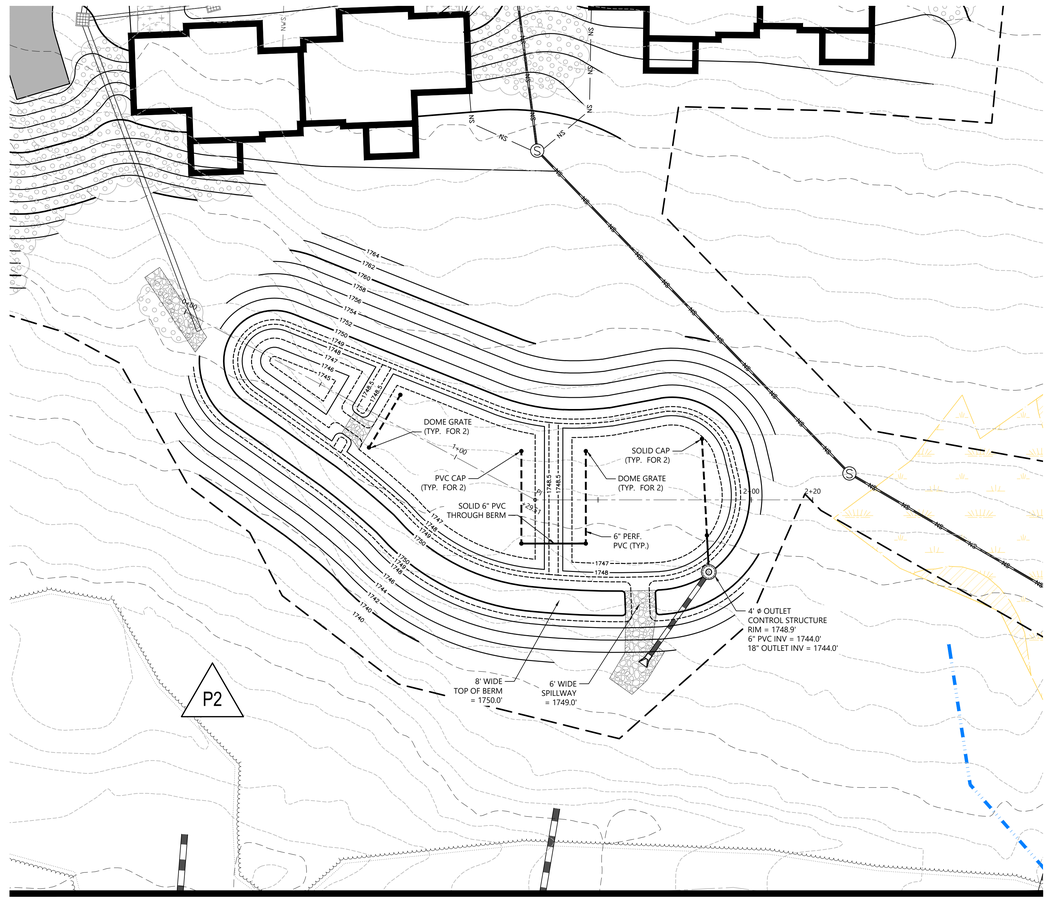
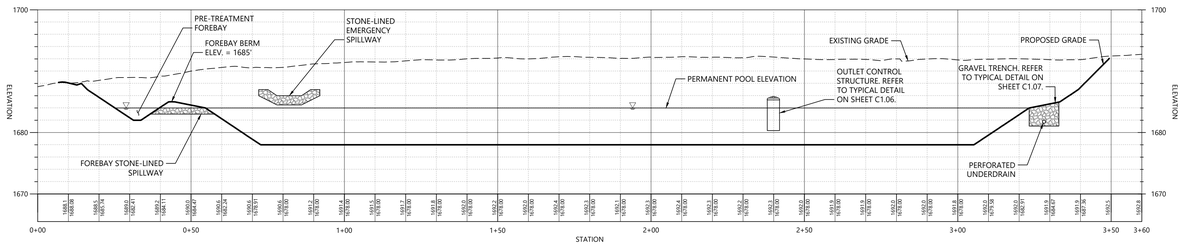
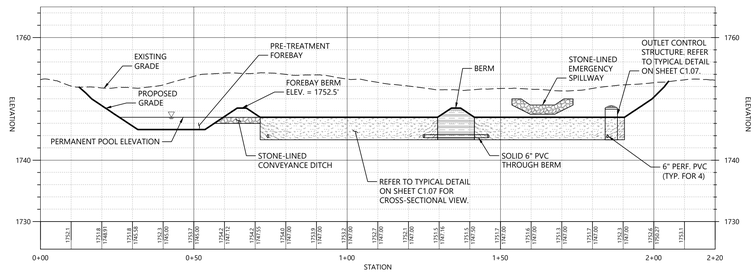






P1 - WET POND



P2 - GRAVEL WETLAND

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

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Designed by ZJD | Checked by PS

Issued for: Review

Date: April 29, 2022

Not For Construction

Drawing Title: **Stormwater Facility Plan and Profile**

Drawing Number: **CG-3.01**

Sheet 35 of 63

Project Number: 55310.01

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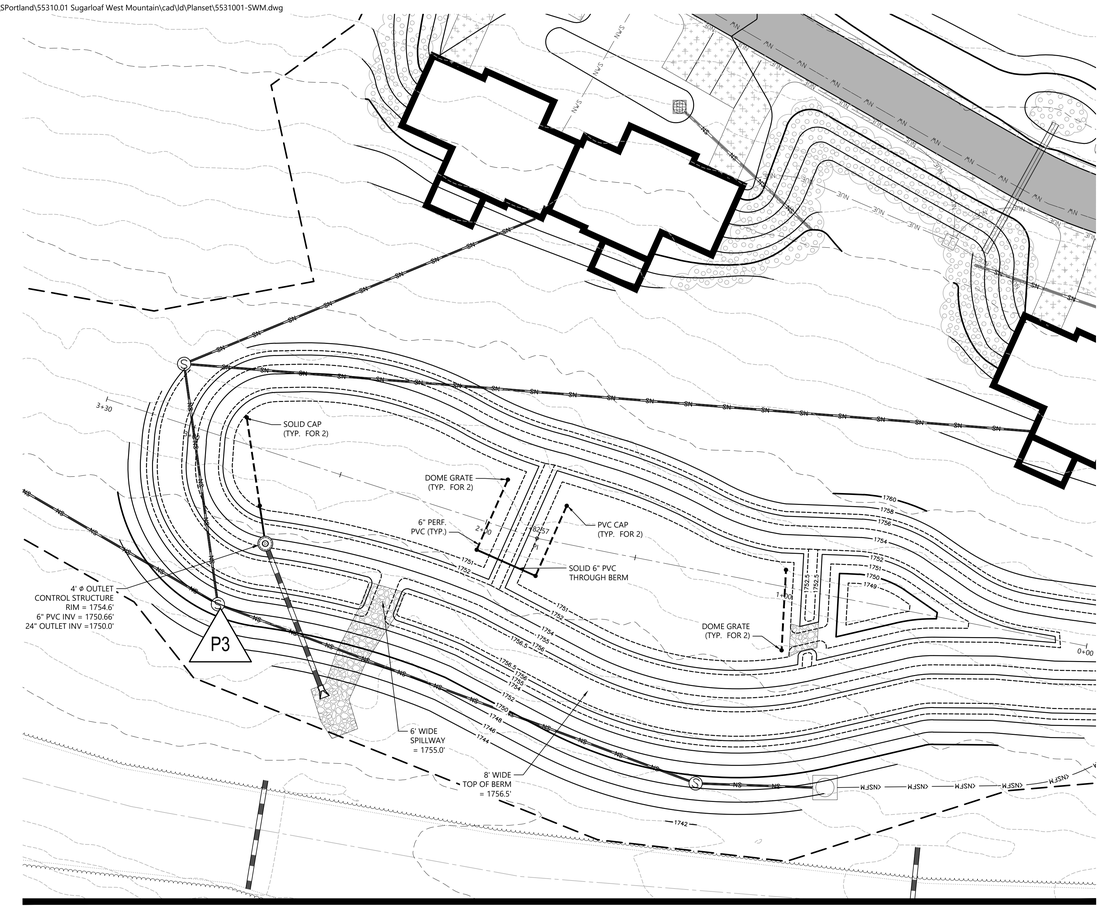
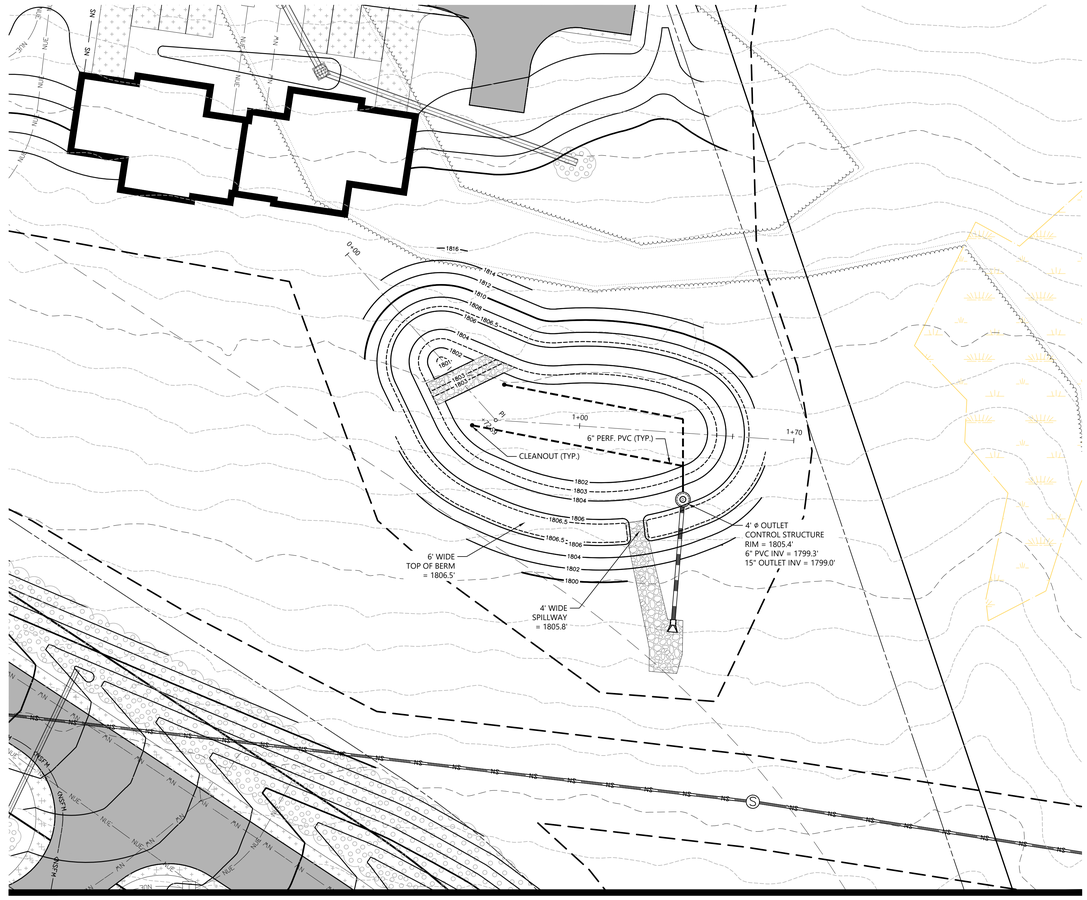
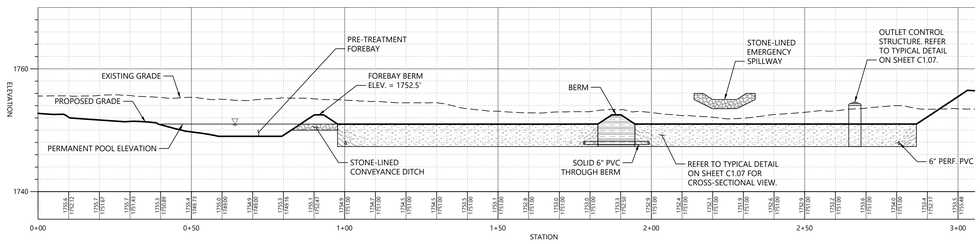
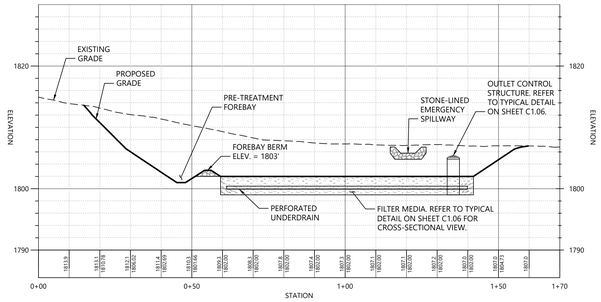






P3 - GRAVEL WETLAND



P4 - VEGETATED UNDERDRAINED SOIL FILTER

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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No.	Revision	Date	Appvd.

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Stormwater Facility Plan and Profile

Drawing Number
CG-3.02

Sheet 36 of 63

Project Number
55310.01

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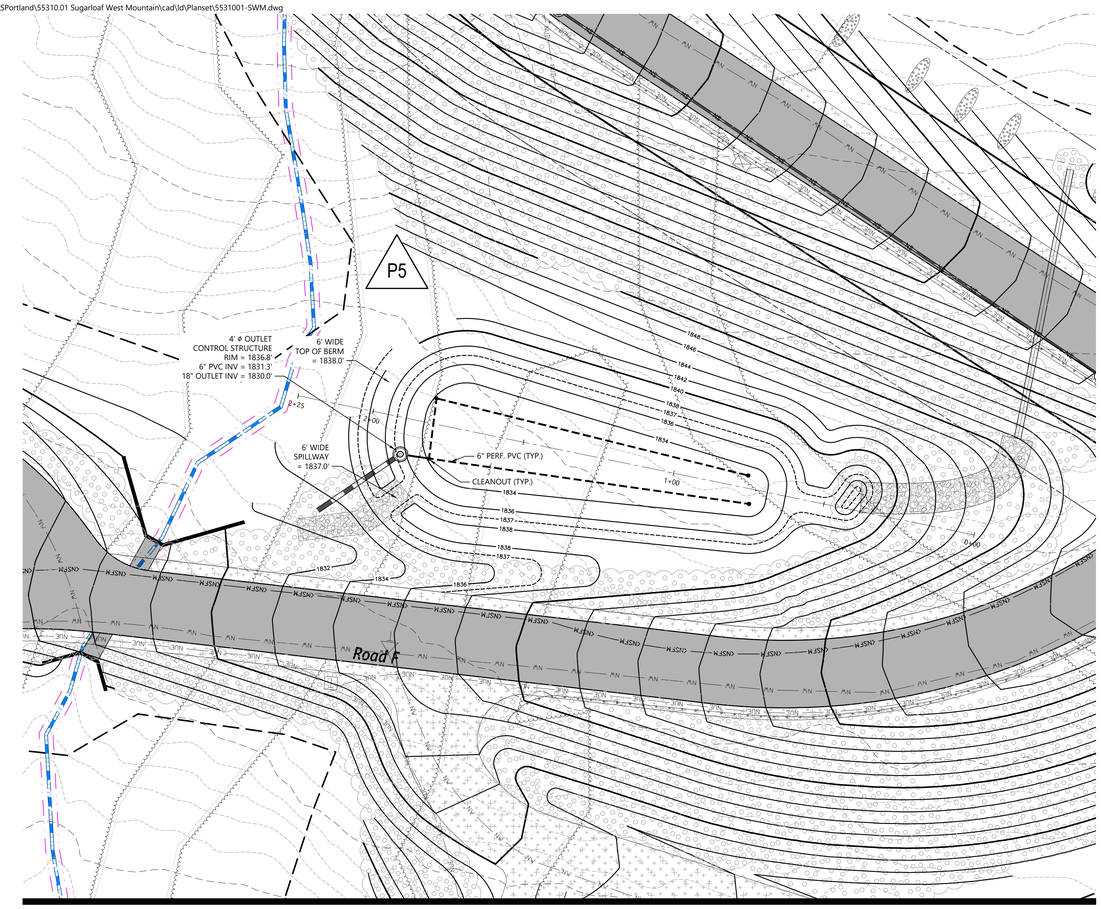
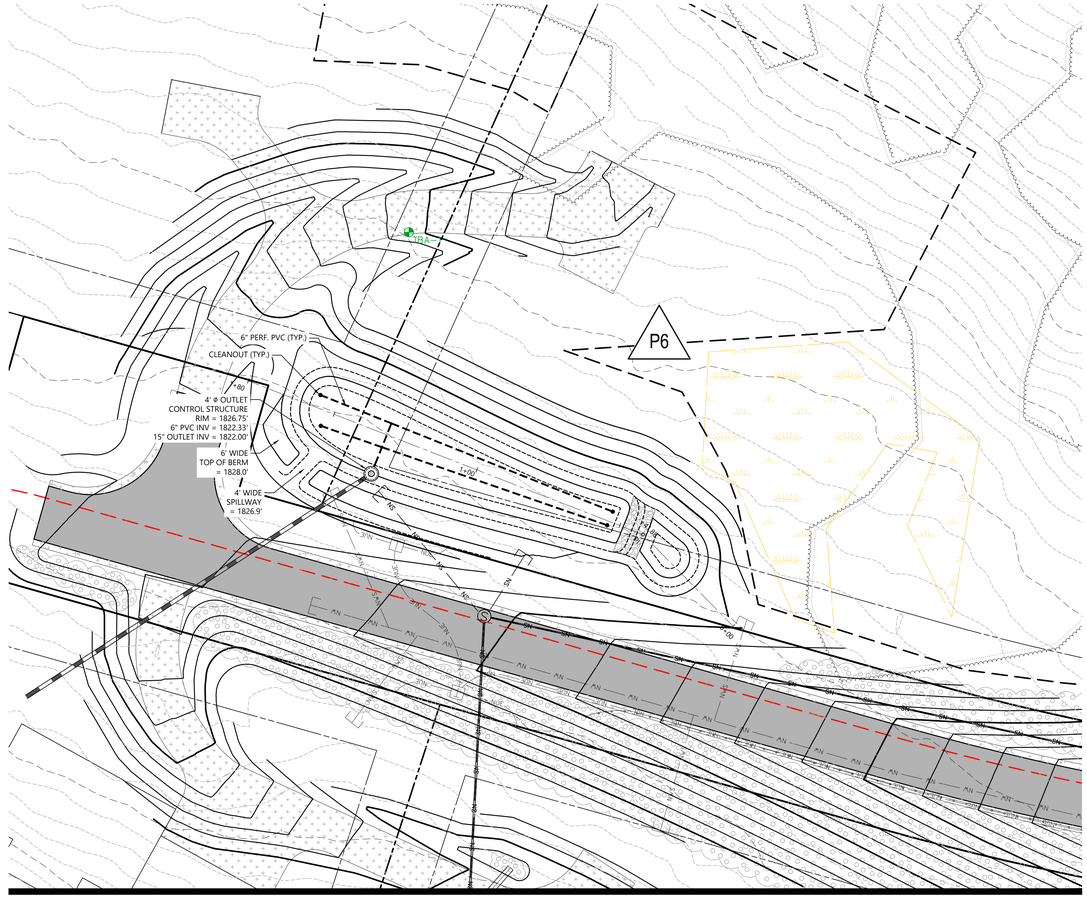
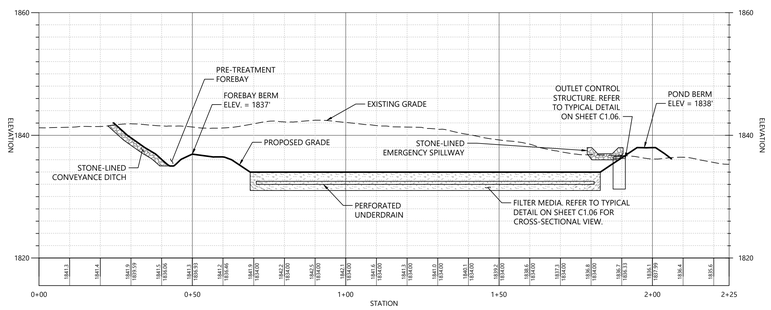
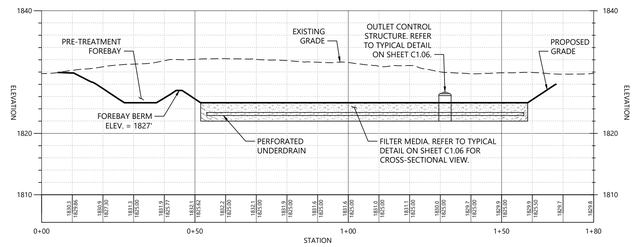






P5 - VEGETATED UNDERDRAINED SOIL FILTER



P6 - VEGETATED UNDERDRAINED SOIL FILTER

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

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Drawing Number
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Sheet 37 of 63

Project Number
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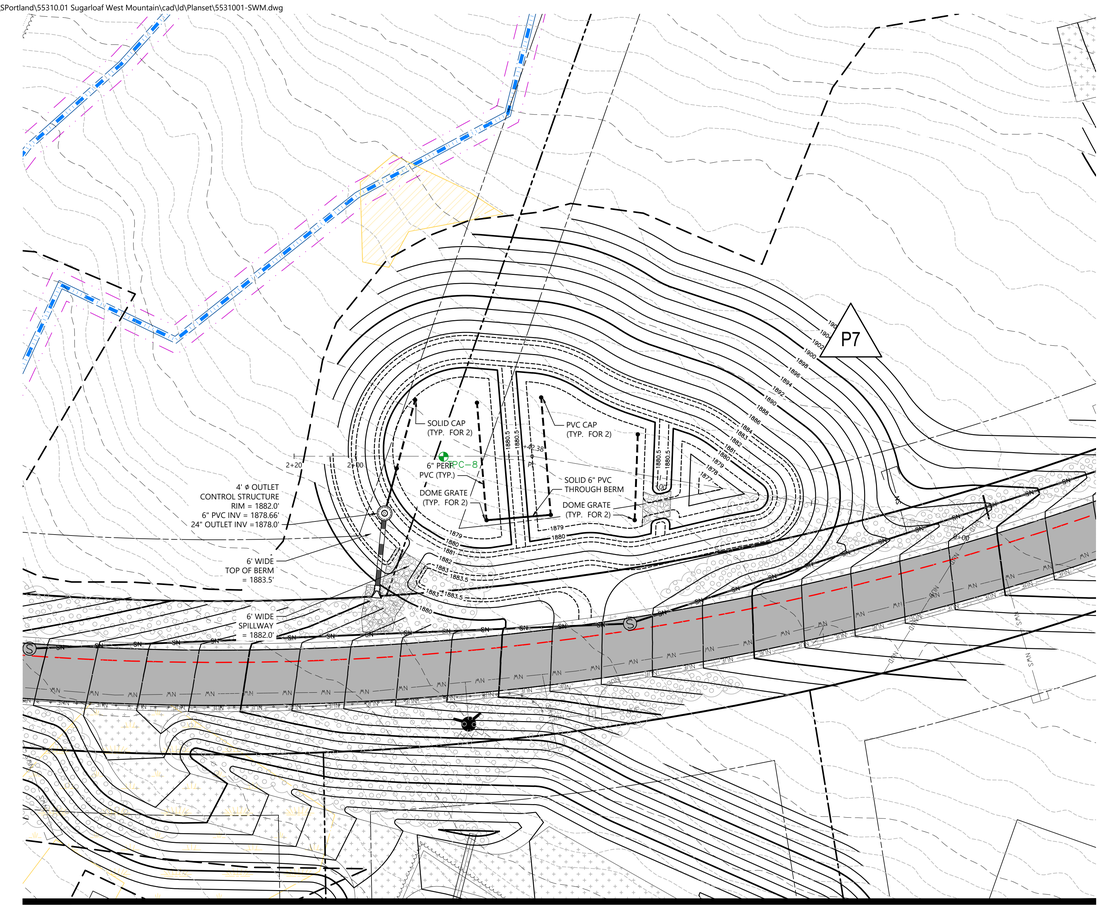
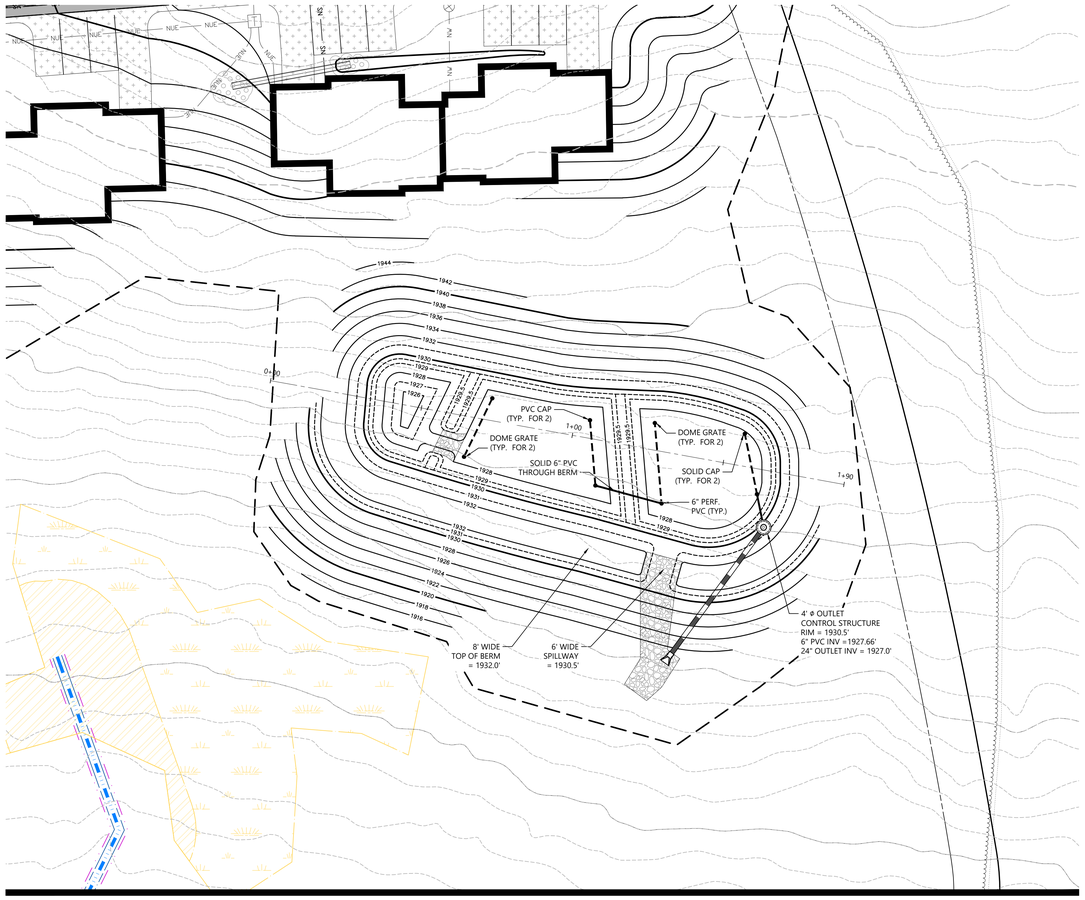
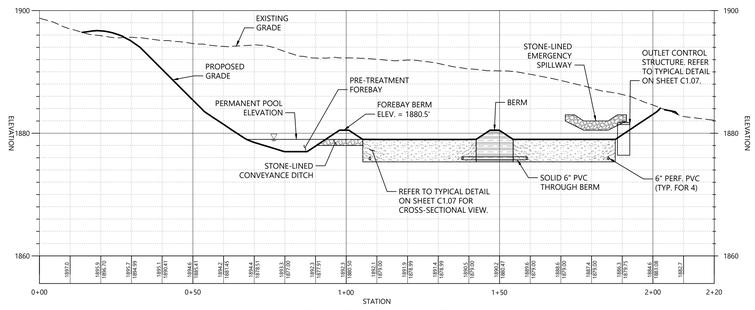
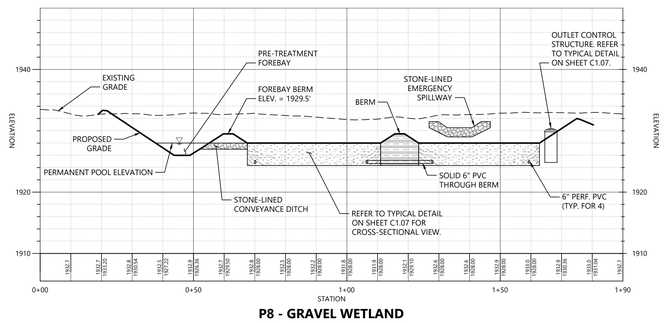






P7 - GRAVEL WETLAND



P8 - GRAVEL WETLAND

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

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Drawing Title: **Stormwater Facility Plan and Profile**

Drawing Number: **CG-3.04**

Sheet 38 of 63

Project Number: 55310.01

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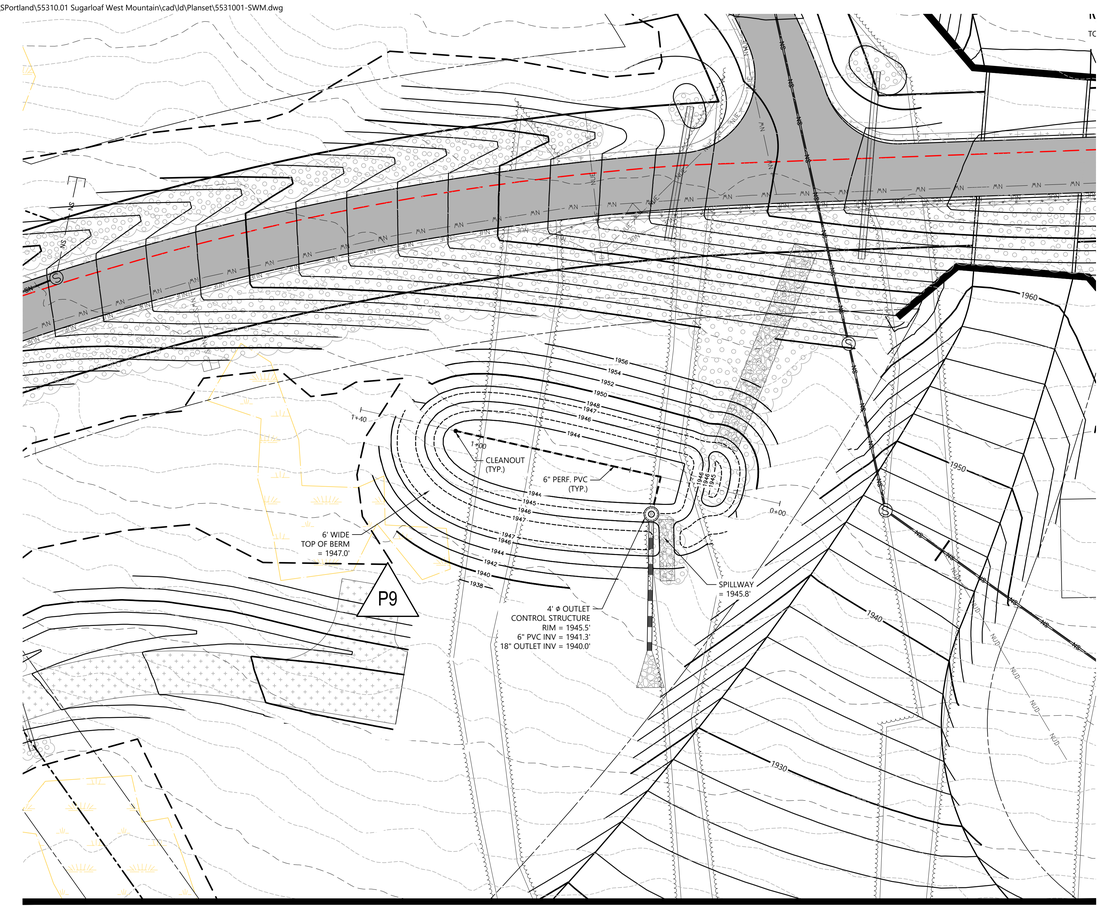

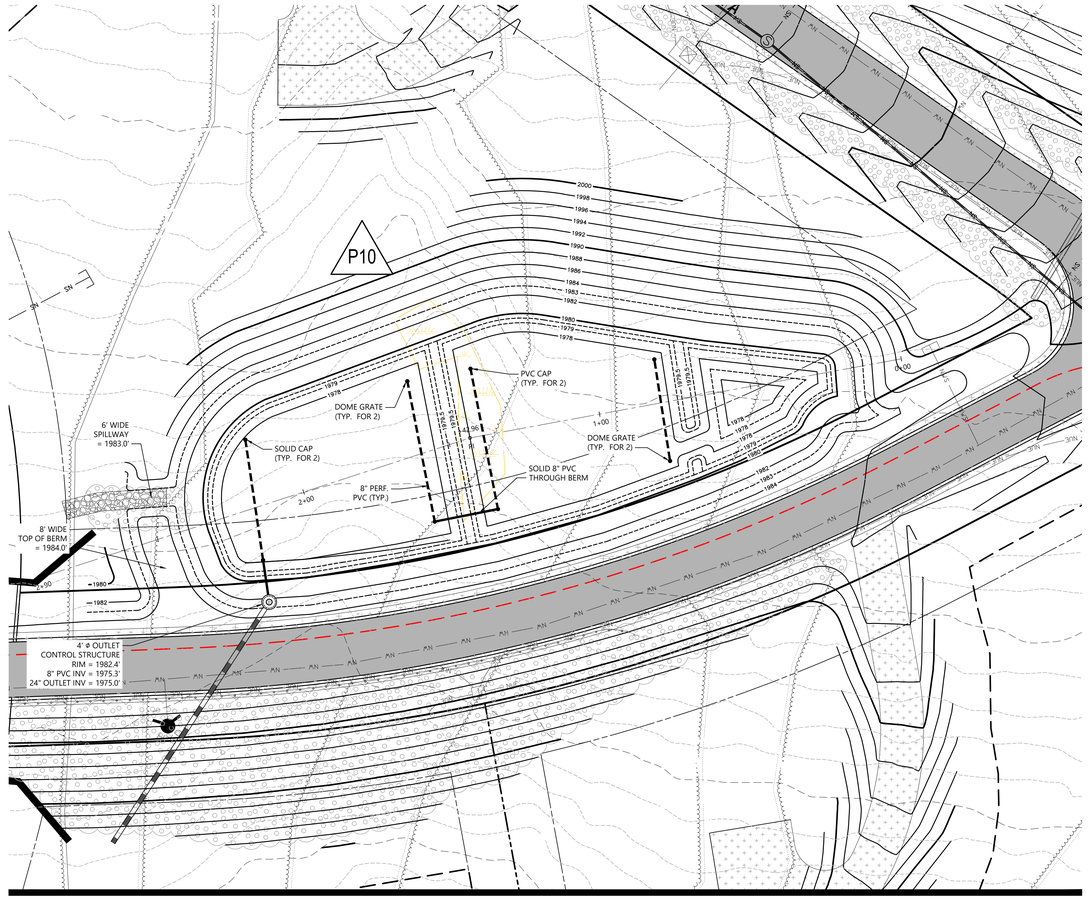

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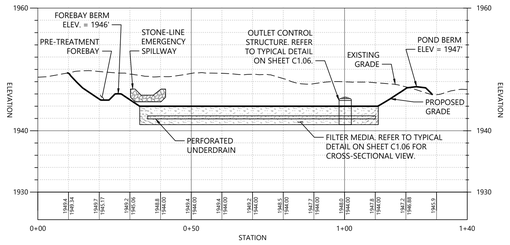
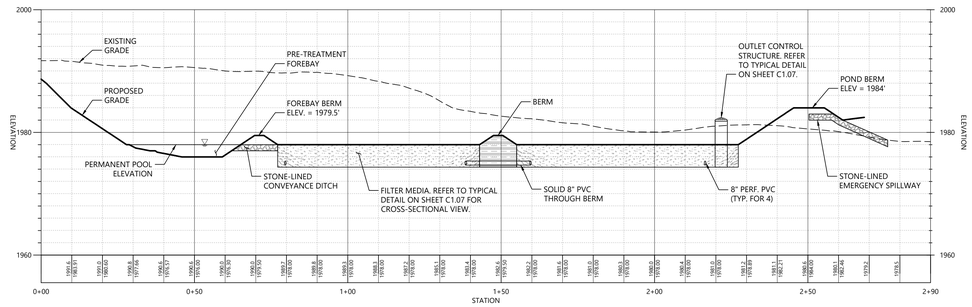
Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND



P9 - VEGETATED UNDERDRAINED SOIL FILTER



P10 - GRAVEL WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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Drawing Title: **Stormwater Facility Plan and Profile**

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Sheet 39 of 63

Project Number: 55310.01

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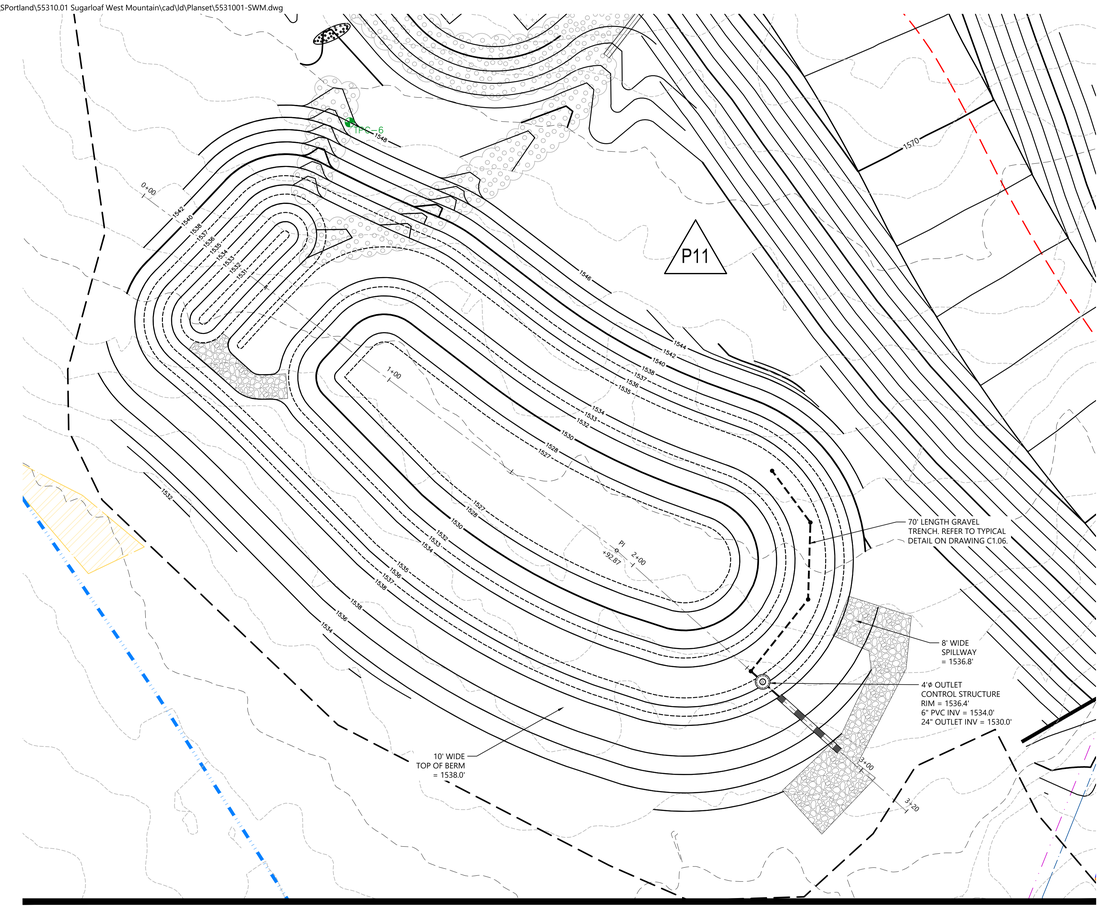
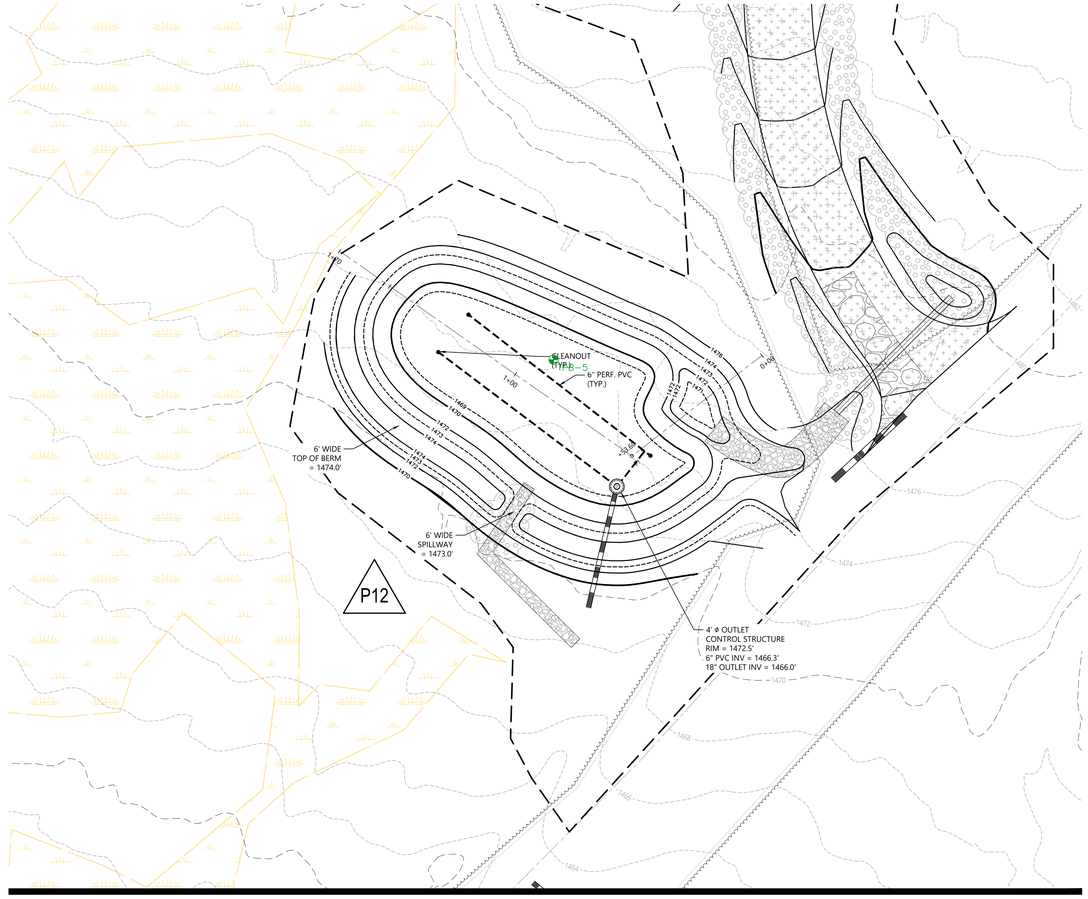
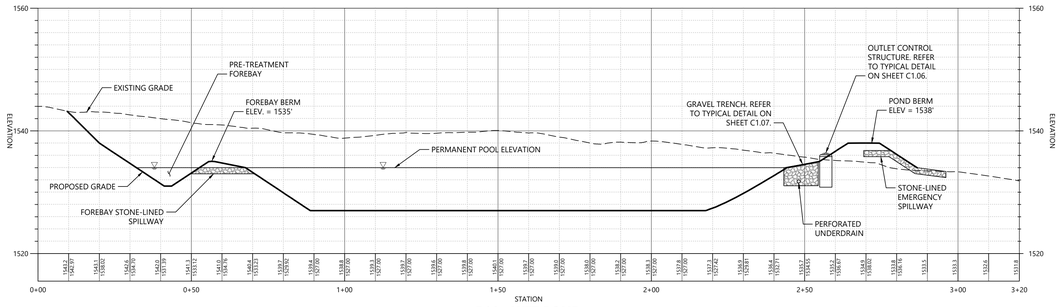
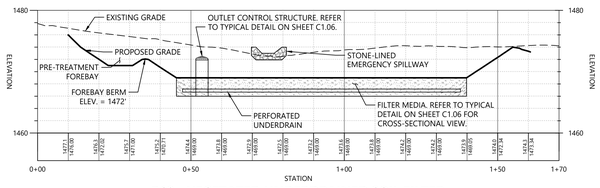






P11 - WET POND



P12 - VEGETATED UNDERDRAINED SOIL FILTER

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Drawing Title: **Stormwater Facility Plan and Profile**

Drawing Number: **CG-3.06**

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Project Number: 55310.01

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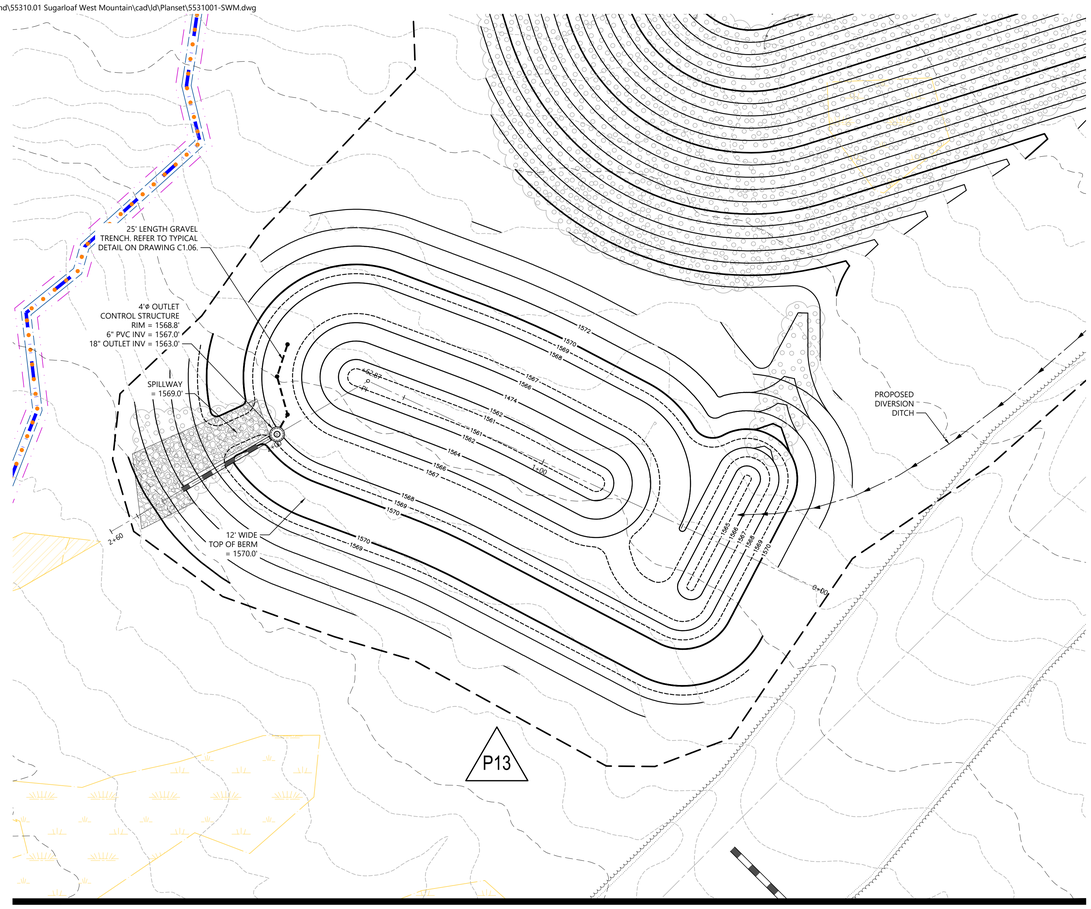
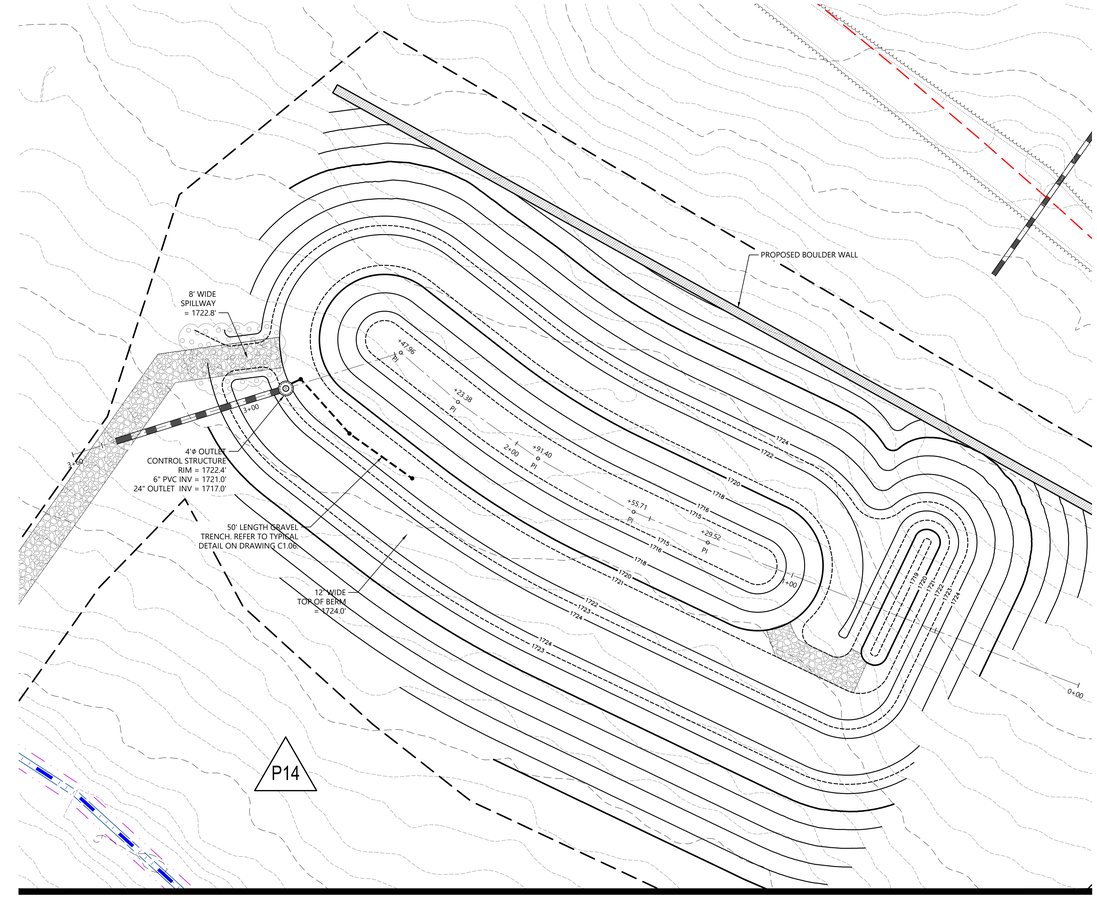
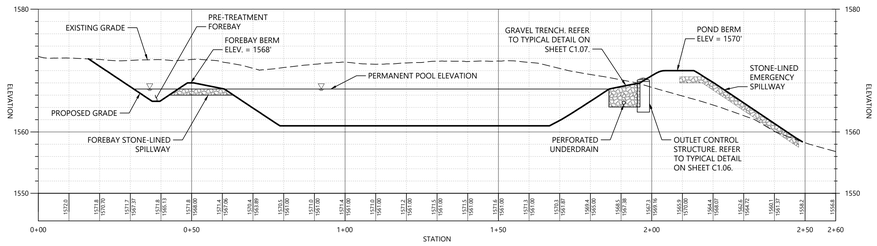
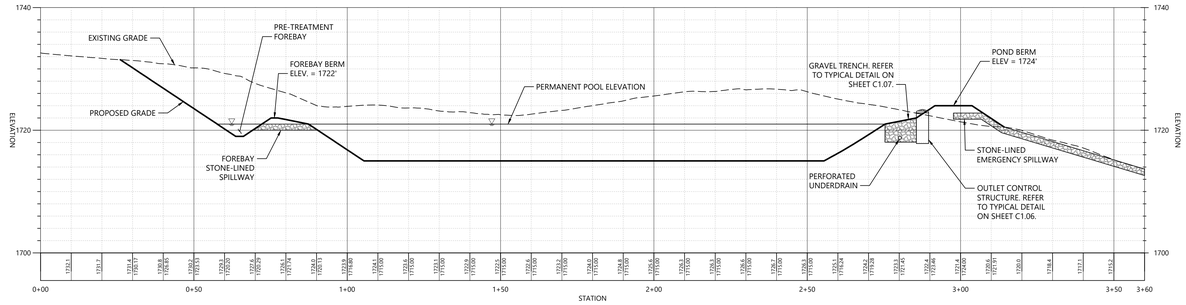






P13 - WET POND



P14 - WET POND

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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Stormwater Facility Plan and Profile

Drawing Number
CG-3.07

Sheet of 63

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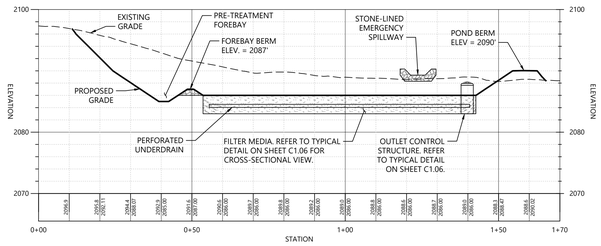
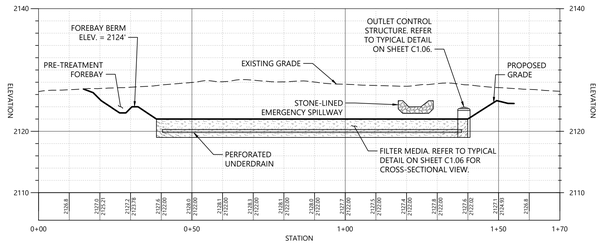


P15 - VEGETATED UNDERDRAINED SOIL FILTER



P16 - VEGETATED UNDERDRAINED SOIL FILTER

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.08

Sheet of 63

Project Number
55310.01

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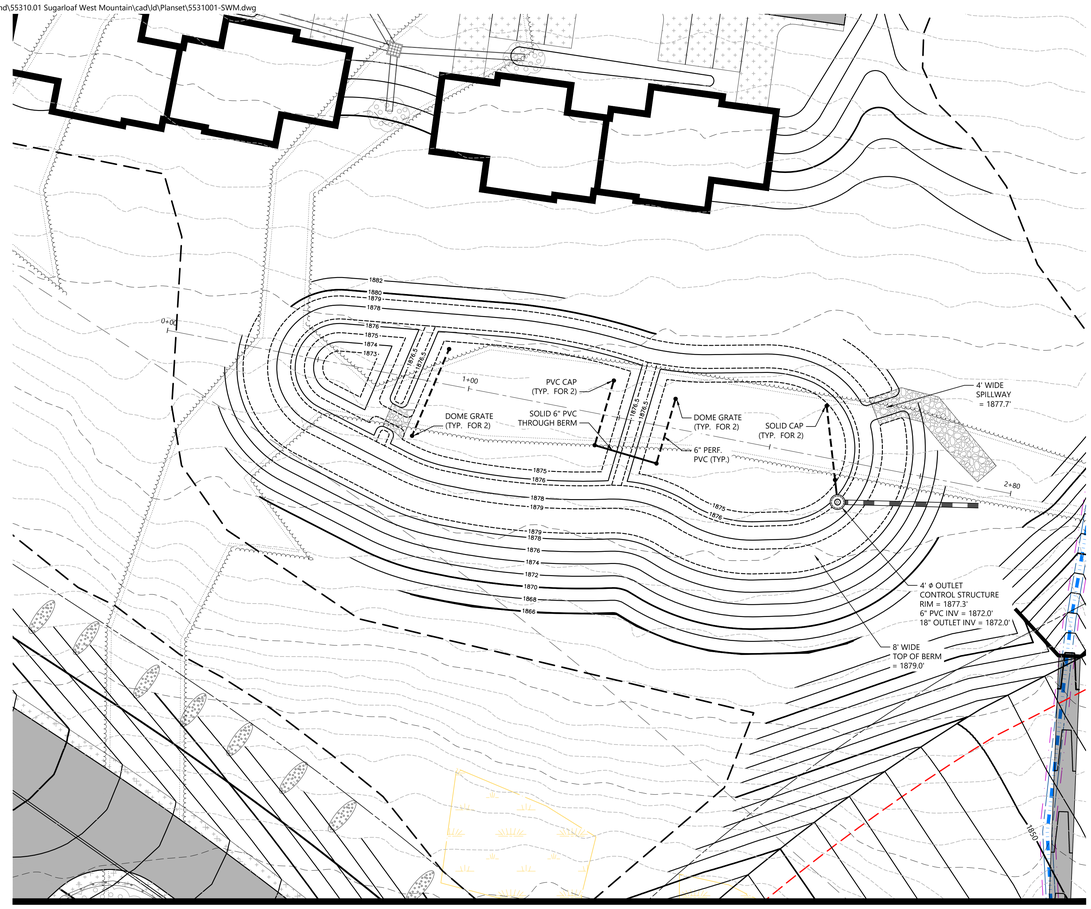

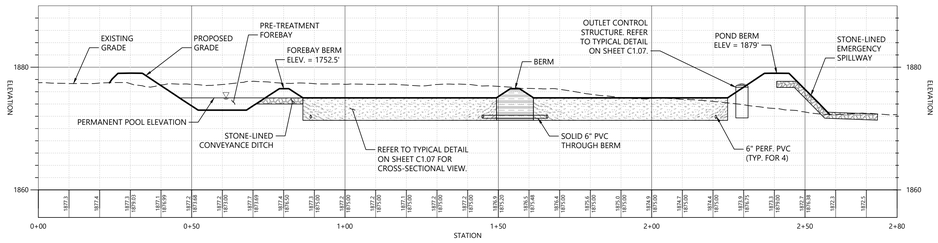

P17 - GRAVEL WETLAND

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Legend

- SOIL TEST PIT LOCATION
- 10 FT CONTOUR
- 2 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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No.	Revision	Date	Appvd.

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
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Project Number
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Legend

- PROPOSED SUBCATCHMENT
- PROPOSED WATERSHED
- TIME OF CONCENTRATION FLOWPATH
- 50 FT CONTOUR
- 10 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND
- SINGLE-FAMILY RAINGARDEN

0 150 300 600 Feet

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Date: April 29, 2022

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Drawing Title: **Overall Proposed Conditions Hydrology Plan**

Drawing Number: **SW-1**

Sheet 44 of 63

Project Number: 55310.01

General Notes

1) SOIL MAPPING DEPICTED ON THIS PLAN IS BASED UPON USDA NRCS SOIL MAPPING FOR FRANKLIN COUNTY, MAINE.
2) SINGLE-FAMILY LOT RAIN GARDENS, REPRESENTED AS SHOWN IN LEGEND, ARE NUMBERED IN THE HYDROCAD MODEL PER THE CORRESPONDING LOT NUMBER.

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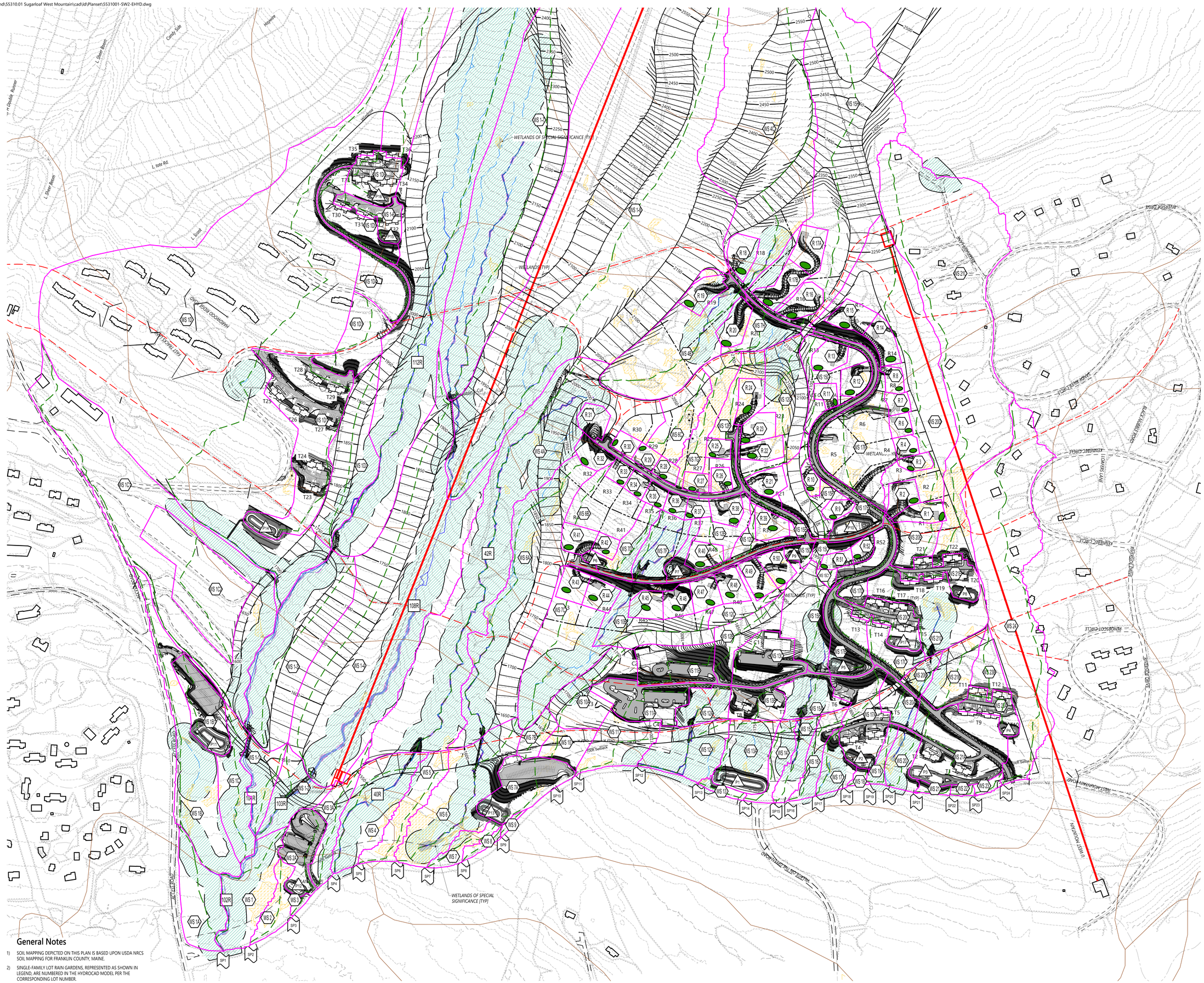
WETLANDS OF SPECIAL SIGNIFICANCE (TYP)
WETLANDS (TYP)
WETLANDS (TYP)
WETLANDS OF SPECIAL SIGNIFICANCE (TYP)
L tote Rd
L Silver Room
L Silver Room
L Scott
Conoly Slide
Hopwire
Hunlow
GROUNDSKEEPER'S
ACCESS RD
ACCESS RD
ACCESS RD
WEST MOUNTAIN ROAD
WEST MOUNTAIN ROAD
WEST MOUNTAIN ROA

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Legend

- PROPOSED DRAINAGE AREA (1)
- PROPOSED WATERSHED
- 50 FT CONTOUR
- 10 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

0 100 200 400 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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No.	Revision	Date	Appvd.

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Date: April 29, 2022

Not For Construction

Drawing Title: **Proposed Drainage Area Plan**

Drawing Number: **SW-1.2**

Sheet 46 of 63

Project Number: 55310.01

General Notes

1) THE SOURCE OF THE SOIL DATA IS THE USDA NRCS SOIL SURVEY.

STATE OF MAINE
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No. 16994
LICENSED PROFESSIONAL ENGINEER

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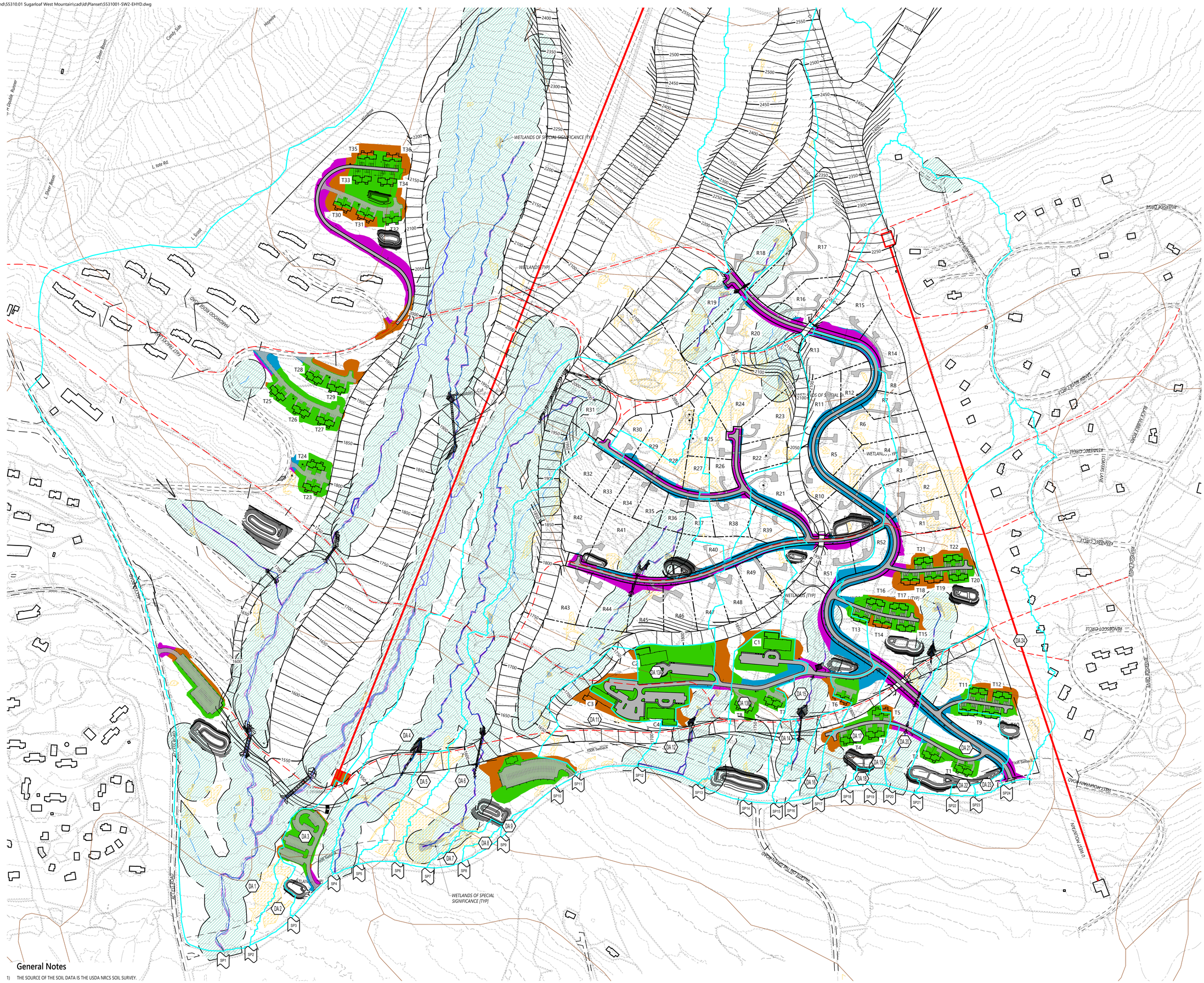
WETLANDS OF SPECIAL SIGNIFICANCE (TYP)
WETLANDS (TYP)
L Tote Rd
L Silver Basin
L Scott
Hunter
Hogback
Conroy Slide
Double Runner
GRID IRON DOOMWAY
FAST TRACK
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SP23
SP24
100ft Setback
Cut
Fill
Overhead Electric
Ski Trail
Ski Trail Bridge
Ski Trail Culvert
Ski Trail Retaining Wall
Ski Trail Stairs
Ski Trail Steps
Ski Trail Underpass
Ski Trail Water Bar
Ski Trail Waterway
Ski Trail Wetland Crossing
Ski Trail Wetland Mitigation
Ski Trail Wetland Mitigation Boundary
Ski Trail Wetland Mitigation Planting
Ski Trail Wetland Mitigation Planting Boundary
Ski Trail Wetland Mitigation Planting Boundary
Ski Trail Wetland Mitigation Planting Boundary

\\vhb\gbl\proj\SPortland\55310.01 Sugarloaf West Mountain\cad\ld\Planset\5531001-SW2-EHYD.dwg

BMP INSPECTION TABLE

BMP ID #	BMP TYPE	INSPECTION NOTES
P1	WET POND	
P2	GRAVEL WETLAND	
P3	GRAVEL WETLAND	
P4	VEGETATED UNDERDRAINED SOIL FILTER	
P5	VEGETATED UNDERDRAINED SOIL FILTER	
P6	VEGETATED UNDERDRAINED SOIL FILTER	
P7	GRAVEL WETLAND	
P8	GRAVEL WETLAND	
P9	VEGETATED UNDERDRAINED SOIL FILTER	
P10	GRAVEL WETLAND	
P11	WET POND	
P12	VEGETATED UNDERDRAINED SOIL FILTER	
P13	WET POND	
P14	WET POND	
P15	VEGETATED UNDERDRAINED SOIL FILTER	
P16	VEGETATED UNDERDRAINED SOIL FILTER	
P17	GRAVEL WETLAND	

General Notes

1) SOIL MAPPING DEPICTED ON THIS PLAN IS BASED UPON USDA NRCS SOIL MAPPING FOR FRANKLIN COUNTY, MAINE.
2) SINGLE-FAMILY LOT RAIN GARDENS, REPRESENTED AS SHOWN IN LEGEND, ARE NUMBERED IN THE HYDROCAD MODEL PER THE CORRESPONDING LOT NUMBER.
2) REFER TO INSPECTION AND MAINTENANCE PLAN IN SECTION 14 OF THE PROJECT SITE LAW APPLICATION FOR SPECIFIC REQUIREMENTS ON EACH STORMWATER PRACTICE TYPE.

Legend

- 1 — PROPOSED SUBCATCHMENT
- PROPOSED WATERSHED
- TIME OF CONCENTRATION FLOWPATH
- 50 FT CONTOUR
- 10 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND
- SINGLE-FAMILY RAINGARDEN

0 150 300 600 Feet

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Sugarloaf Mtn Corp
West Mountain Expansion
5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by ZJD | Checked by PS
Issued for: Review | Date: April 29, 2022

Not For Construction

Drawing Title: BMP Location Plan

Drawing Number: SW-1.4

Sheet 48 of 63

Project Number: 55310.01

STATE OF MAINE — PETER B. SMIAR — No. 16994 — LICENSED PROFESSIONAL ENGINEER

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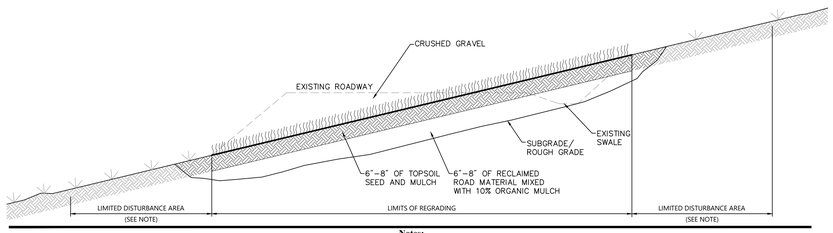


Notes:

RECLAMATION PROCEDURE:

1. REMOVE ROAD MATERIAL USING A BULLDOZER TO A DEPTH OF 12 INCHES BELOW APPROXIMATE FINAL GRADE. TEMPORARY STOCKPILE MATERIAL IN AN UPLAND AREA FOR USE IN ACHIEVING FINAL GRADE (SEE ATTACHED ROADWAY RECLAMATION – TYPICAL SECTION);
   a. INSTALL SILT FENCE TO SURROUND SOIL STOCKPILE(S)
   b. IF STOCKPILED MATERIAL WILL NOT BE USED WITHIN 14 DAYS, APPLY MULCH FOR TEMPORARY STABILIZATION
2. STOCKPILED MATERIAL SHOULD BE MIXED WITH APPROXIMATELY 10% COMPOSTED ORGANIC MATTER U.S. ARMY CORPS OF ENGINEERS (USACE) – NEW ENGLAND DISTRICT – REGULATORY DIVISION. 2010. NEW ENGLAND DISTRICT COMPENSATORY MITIGATION GUIDANCE., AND PLACED TO A DEPTH OF 8 TO 6 INCHES WITHIN THE EXCAVATED AREA;
   a. THIS MATERIAL SHOULD BE LIGHTLY COMPACTED TO MINIMIZE THE EFFECT OF LATER SETTLING (I.E., WITH A LIGHT WEIGHT TRACKED VEHICLE SUCH AS A BOBCAT).
3. CLEAN TOPSOIL (I.E., REASONABLY FREE OF NONORGANIC REFUSE SUCH AS PLASTICS, AS WELL AS CHEMICAL CONTAMINANTS SUCH AS HERBICIDES) AND WITH AN ORGANIC MATTER CONTENT OF BETWEEN 10 AND 20%, SHOULD BE PLACED TO A DEPTH OF 6 TO 8 INCHES ON THE SUB-GRADE MATERIAL TO ACHIEVE FINAL GRADE;
   a. THE TOPSOIL SHOULD BE LIGHTLY COMPACTED IN A SIMILAR MANNER TO THE SUB-GRADE MATERIAL; THE BOBCAT SHOULD MOVE IN A DIRECTION THAT IS PERPENDICULAR TO THE SLOPE TO CREATE MICROTOPOGRAPHY WHICH WILL INHIBIT DIRECTED RUNOFF AND POTENTIALLY EROSIVE RILLS.
4. THE GRADED AREA SHOULD BE SEEDED AS SOON AS POSSIBLE TO ENSURE SITE STABILIZATION.
5. THE SEED MIX SHOULD INCLUDE A MIX OF NATIVE SPECIES WHICH CONTAIN BOTH ANNUAL AND PERENNIAL SPECIES TO ENSURE QUICK AND LASTING COVERAGE (SEE TABLE 1 FOR REPRESENTATIVE SEED MIX).
   a. SEED MIX MAY BE APPLIED BY HYDRO-SEEDING, BY MECHANICAL SPREADING, OR BY HAND (FOR SMALLER AREAS).
   b. IF SEED IS APPLIED BY MECHANICAL OR HAND SPREADING METHODS, THE RESTORED AREA SHOULD BE MULCHED IMMEDIATELY USING STRAW MULCH TO MINIMIZE THE PRESENCE OF UNDESIRABLE SPECIES (I.E., INVASIVE SPECIES); MULCH SHOULD BE APPLIED AT A RATE OF 2 TONS (100–200 BALES) PER ACRE.

TABLE 1

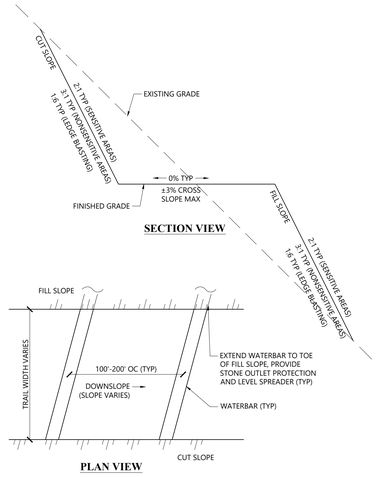
PROPOSED SEED MIX FOR ROAD RECLAMATION

COMMON NAME	SCIENTIFIC NAME
RED FESCUE	FESTUCA RUBA
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM
SWITCH GRASS	PANICUM VIRGATUM
ANNUAL RYE	ELYMUS VIRGINICUS
BIG BLUESTEM	ANDROPOGON GERARDII
INDIAN GRASS	SORGHASTRUM NUTANS
DEER TONGUE	PANICUM CLANDESTINUM
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA
SOFT RUSH	JUNCUS EFFUSUS
PATH RUSH	JUNCUS TENUIS
ROUGH BENTGRASS	AGROSTIS SCABRA

- SPECIFIED SEED MIX IS THE NEW ENGLAND LOGGING ROAD MIX (PROPRIETARY BLEND) FROM NEW ENGLAND WETLAND PLANTS, INC. HTTP://WWW.NEWP.COM – OR APPROVED EQUAL
- SEED SHOULD BE APPLIED AT A MINIMUM RATE OF 20 LBS/ACRE (1 LB / 2,000 SF)

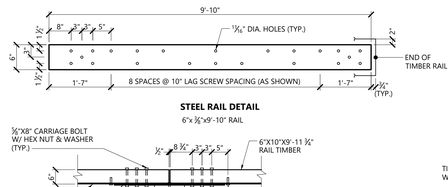
Roadway Reclamation Detail — ST-06

N.T.S. Source: VHB

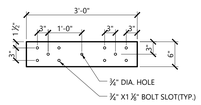


Typical Ski Trail Design — 6/16

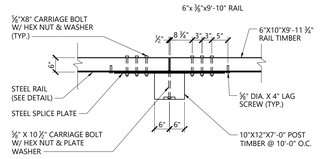
N.T.S. Source: VHB VT_LD



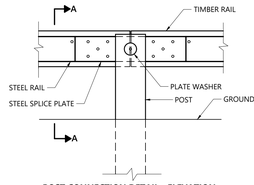
STEEL RAIL DETAIL
6"x ⅜"x9'-10" RAIL



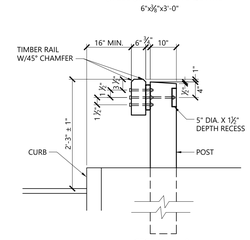
STEEL SPLICE PLATE DETAIL
6"x⅜"x3'-0"



POST CONNECTION DETAIL - TOP VIEW



POST CONNECTION DETAIL - ELEVATION



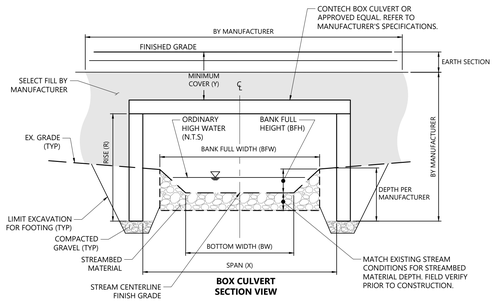
SECTION A-A

NOTES

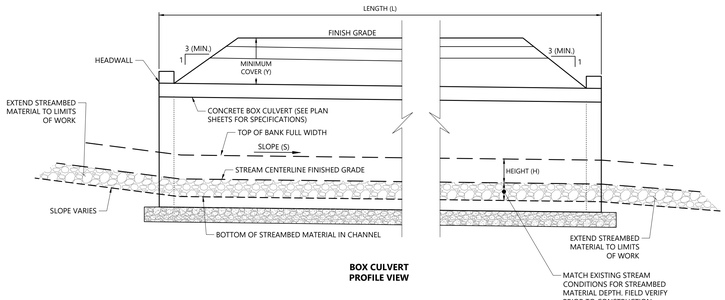
1. TIMBER RAILS AND POSTS SHALL BE PLANED ON THE FACE AND TOP AND THEN PRESSURE TREATED.
2. STEEL RAILS, SPLICE PLATES, BOLTS, SCREWS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. AT END POSTS, PROVIDE FULL COVERAGE OF POST FACE WITH TIMBER RAIL AND SPLICE PLATE.

Steel-Backed Wood Guardrail — 1/16

N.T.S. Source: VHB LD_452



BOX CULVERT SECTION VIEW



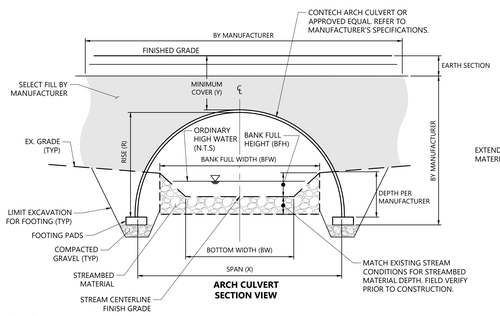
BOX CULVERT PROFILE VIEW

NOTES

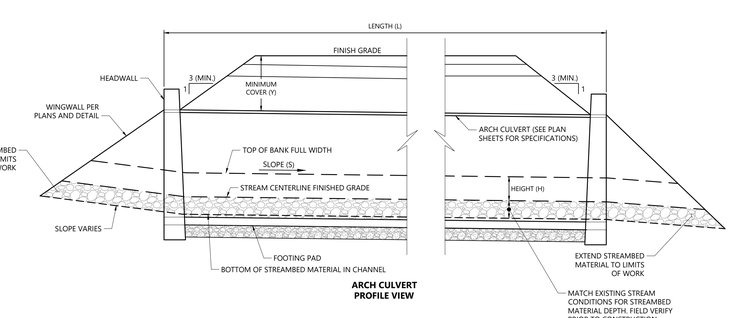
1. CULVERT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. BOX CULVERT DIMENSIONS (WIDTH x HEIGHT) NOTED ON PLANS ARE FOR CLEAR OPENING AND DO NOT INCLUDE BURIED (SUBGRADE) PORTIONS OF CULVERTS.
3. THE CULVERT SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS PROVIDED BY THE MANUFACTURER AND PER THE MANUFACTURER'S RECOMMENDATIONS.
4. FOR CULVERT NOMINAL DIMENSIONS, REFER TO PLAN SHEETS

Typical Stream Crossing (Box Culvert)

N.T.S. Source: VHB/CONTECH



ARCH CULVERT SECTION VIEW



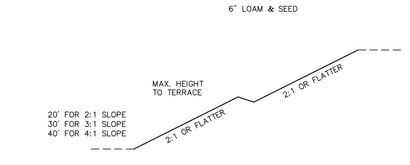
ARCH CULVERT PROFILE VIEW

NOTES

1. CULVERT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. CULVERT DESIGN SHALL BE HS-20 LOADING OR GREATER.
3. CULVERT HEADWALLS SHALL INCLUDE WING-WALLS AS MAY BE REQUIRED AND/OR AS INDICATED ON SITE PLANS.
4. FOR CULVERT NOMINAL DIMENSIONS, REFER TO PLAN SHEETS

Typical Stream Crossing (Arch Culvert)

N.T.S. Source: VHB/CONTECH

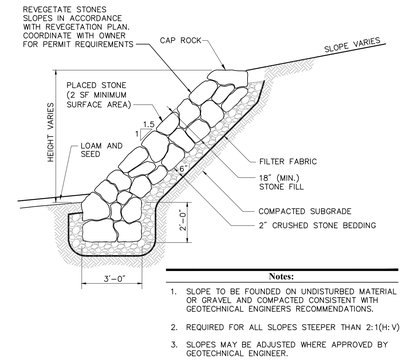


Notes:

1. SEE EROSION CONTROL BLANKET DETAIL FOR SLOPES STEEPER THAN 3 HORIZONTAL: 1 VERTICAL
2. LONGITUDINAL BENCH GRADE ALONG TERRACE TO BE 2% TO 3%, AND MAXIMUM FLOW LENGTH ALONG BENCH SHALL NOT EXCEED 800 FT.
3. VEGETATED SLOPES MAY BE USED IN PLACE OF STONE SLOPES WHERE FLATTER SLOPES WOULD NOT SIGNIFICANTLY ALTER LIMITS OF CLEARING, AND WHERE APPROVED BY ENGINEER.

Vegetated Slopes (2:1 or Flatter) — EV-10

N.T.S. Source: VHB



Notes:

1. SLOPE TO BE FOUNDED ON UNDISTURBED MATERIAL OR GRAVEL AND COMPACTED CONSISTENT WITH GEOTECHNICAL ENGINEERS RECOMMENDATIONS.
2. REQUIRED FOR ALL SLOPES STEEPER THAN 2:1(H:V)
3. SLOPES MAY BE ADJUSTED WHERE APPROVED BY GEOTECHNICAL ENGINEER.

Placed Stone Slope — EV-11

N.T.S. Source: VHB LD_760

STREAMBED MATERIAL FOR CHANNEL FORMATION AND OUTLET PROTECTION

THE BOULDER-COBBLE-GRAVEL-SAND MATERIAL SPECIFIED BELOW MUST BE APPROVED BY THE ENGINEER AT THE CONTRACTOR'S PROPOSED SOURCE PRIOR TO BEING PLACED IN THE STREAM CHANNEL.

Cumulative Percent of particles finer than indicated particle size	PARTICLE SIZE (inches)	PARTICLE TYPE
D10	< 0.04	sand
D16	1.0-2.0	gravel
D35	3.0-4.0	cobble
D50	8.0-10.0	cobble
D84	14.0-16.0	boulder

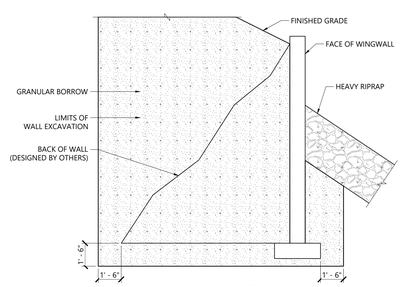
DESCRIPTION	SIZE	BUCKETS	PERCENT
ROCK/BOULDER	WELL GRADED 12-16"	0.5	7 - 12%
ROCK/COBBLE	WELL GRADED 8 - 12"	2	35 - 40%
BANK RUN GRAVEL	0.08 - 2.5"	2	35 - 40%
COURSE SAND	0.04 - 0.08" (1 - 2 MM)	0.75	12 - 17%

NOTES

1. ALL IMPORTED BEDDING MATERIAL SHALL CONSIST OF FIELD STONE OR NATURAL RIVER ROCK SIMILAR IN COLOR AND APPEARANCE TO IN-SITU MATERIALS.
2. CRUSHED STONE SHALL NOT BE PERMITTED.
3. BANK RUN GRAVEL MAY INCLUDE UP TO 5% CLAY, SILT, AND/OR SAND, AND UP TO 25% COBBLE AND SHALL HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
4. SAND SHALL BE WELL MIXED AND PREDOMINANTLY 1.0 TO 2.0 MILLIMETERS IN SIZE AND HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
5. THE GRADATION OF IMPORTED MATERIALS SHALL FALL WITHIN THE ENVELOPE AS INDICATED IN THE TABLE ABOVE.
6. COBBLE-GRAVEL VOID RATIO IS ESTIMATED AT 20%. THEREFORE, 20% BY VOLUME OF CL MATERIAL SHALL BE ADDED TO THE COBBLE-GRAVEL-SAND MATERIAL PRIOR TO PLACEMENT IN THE DESIGNATED AREAS. SEE CONSTRUCTION SPECIFICATIONS FOR DETAILS RELATIVE TO MIXING, PLACING, AND COMPACTING STREAMBED MATERIAL.

Streambed Material

N.T.S. Source: VHB



TYPICAL WINGWALL SECTION

NOTES

1. THE CONTRACTOR SHALL PROVIDE PRECAST CONCRETE WINGWALLS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 534. THE WALLS SHALL BE DESIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. COST OF WINGWALLS INCLUDED IN ITEM 534.71.

2. THE PRECAST UNITS SHALL BE ONE OF THE FOLLOWING, OR APPROVED EQUAL:

"T-WALL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF NEEL COMPANY.

"DOUBLEWAL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF DOUBLEWAL CORP., PLAIN, CONNECTICUT.

3. THE MAXIMUM FACTORED BEARING RESISTANCE FOR THE WINGWALLS IS 5 KSF FOR THE SERVICE CONDITION. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR FACTORED BEARING RESISTANCE FOR THE STRENGTH CONDITION BASED ON STEM LENGTH RANGES.

4. ELEVATION AT BOTTOM OF WALLS MAY BE LOWERED FOR CONSTRUCTABILITY AT NO ADDITIONAL COST TO THE DEPARTMENT.

Typical Wingwall

N.T.S. Source:

vhb.com
500 Southborough Drive
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South Portland, ME 04106
207.889.3150

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for: Review — Date: April 29, 2022

Not For Construction

Drawing Title: Site Details

Drawing Number: C-1.02

Sheet 58 of 63

Project Number: 55310.01

STATE OF MAINE PETER B. SMIAR No. 16994 LICENSED PROFESSIONAL ENGINEER

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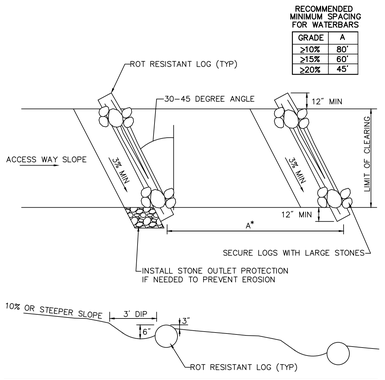
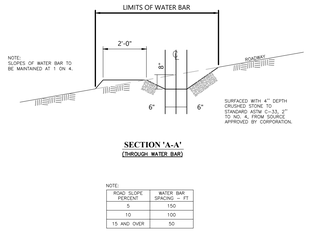


Notes:

1. WATERBARS SHOULD BE INSTALLED IN SECTIONS WITH SLOPES GREATER THAN OR EQUAL TO 10%.
2. WATERBARS SHALL BE CONSTRUCTED WITH 10" DIAMETER MINIMUM PEELED LOGS, HELD IN PLACE WITH LARGE STONES. APPROPRIATE SPECIES INCLUDE SPRUCE, HEMLOCK, BEECH, AND OAK.
3. CONTRACTOR TO OBSERVE THE CLEARINGS DURING A RAINSTORM TO DETERMINE IF ADDITIONAL WATERBARS OR ADJUSTMENTS TO WATERBARS ARE NEEDED.
4. WATERBAR DESIGN AND SPACING PROVIDED FOR GUIDANCE TO CONTROL EROSION ALONG CROSS-COUNTRY CLEARINGS. THE CONTRACTOR SHALL DETERMINE IF OTHER APPROPRIATE MEASURES ARE REQUIRED TO CONTROL RUNOFF AND EROSION IN CLEARING AREAS.
5. FOR WIDER LIMITS OF CLEARING MULTIPLE LOG LENGTHS MAY BE REQUIRED. ANCHOR ALL LOG ENDS WITH LARGE STONES AS SHOWN.

Waterbars - For Cross-Country Utility Clearings ER-03

N.T.S. Source: VHB



SECTION 'A-A'
(THROUGH WATER BAR)

NOTE:

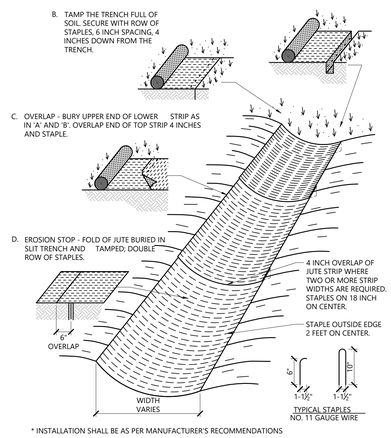
ROAD SLOPE PERCENT	WATER BAR SPACING — FT
5	150
10	100
15 AND OVER	50

Notes:

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. STRIP EXISTING SOD FROM BASE OF DIVERSION RIDGE PRIOR TO PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL.
5. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL CONDITIONS ARE NOT ADEQUATE.
7. INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
8. WATERBAR SLOPE SHALL NOT EXCEED 2% AS SHOWN.
9. FEDERAL, STATE, AND/OR LOCAL REQUIREMENTS MAY OVERRIDE THESE SPECIFICATIONS AND/OR THE USE OF THIS MEASURE.

Typical Water Bar Detail ER-04

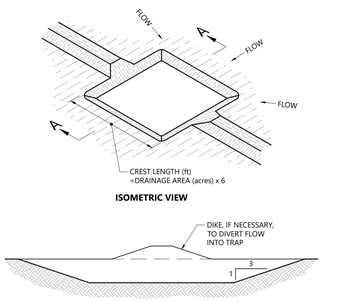
N.T.S. Source: VHB LD_



* INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS

Erosion Control Blanket Swale Installation 1/16

N.T.S. Source: VHB LD_681



ISOMETRIC VIEW

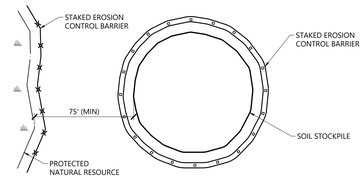
SECTION A-A

NOTES

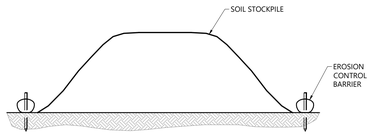
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE .
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. TEMPORARY SEDIMENT TRAPS SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES. ENSURE DOWN GRADIENT SLOPE IS WELL VEGETATED.

Temporary Sediment Trap

N.T.S. Source: VHB



PLAN VIEW



SECTION A-A

NOTES

1. STOCKPILES SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES.
2. STOCKPILES REMAINING UNSTABILIZED FOR A PERIOD OF MORE THAN 15 DAYS SHALL BE TEMPORARILY MULCHED.
3. SOIL STOCKPILES SHALL BE INSPECTED WEEKLY AT A MINIMUM AND BEFORE AND WITHIN 24 HOURS AFTER ALL STORM EVENTS (RAINFALL). IF REPAIR IS REQUIRED, REPAIR WORK SHALL BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

Soil Stockpile Sediment Control

N.T.S. Source: VHB

Stream Channel Sandbag Dike Detail EV-02

N.T.S. Source: VHB LD_

STREAM PUMP BYPASS NOTES:

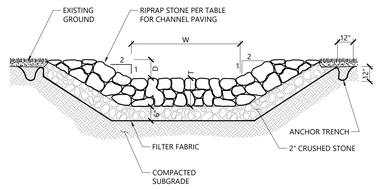
1. When excavation work is performed in a stream channel with an active stream flow, the stream flow shall be collected and pumped downstream from the work area in accordance with the Stream Culvert Installation Procedure Plan, notes, and details. A sandbag dike shall be installed in the stream channel on the uphill side of the work area. The flow collected above the sandbag dike shall be pumped to a splash pool on the downhill side of the work area. The splash pool shall be located at a location approved by the OSPC and/or the EPSC specialist such that the flow returning from the splash pool to the stream channel flow through rock places on fabric.
2. The Contractor shall have a pre-construction meeting with the EPSC Specialist and the OSPC to review the Erosion Prevention and Sediment Control measures and procedures to be employed for the work in the stream bed and the planned de-watering procedures. This meeting shall occur at least 2 days prior to the stream culvert installation.
3. Wherever practical, work within a stream bed shall be done during low flow conditions. The Contractor shall confirm the work schedule with the OPSC at least 48 hours prior to the work. New culvert, riprap at outfalls and channel lining (if required) shall be completed in one day. If work can not be completed in one day, the stream bypass shall be manned overnight.
4. Contractor shall have all equipment onsite the day before construction, including a backup pump with a capacity of 2 times the estimated flow. Sediment trap(s) for trench de-watering shall be construction the day before.
5. Install sandbag dikes at upstream and downstream ends of proposed culverts. Install pumps at upstream side of dikes. Pump capacity shall be 2 times estimated flow. Keep suction end of pump piping 12" off bottom of the stream, where possible.
6. Use a separate de-watering pump for pumping out sediment laden water in excavation for culvert. Pump all sediment laden water into sediment bag or trap. Frequently clean out sediment trap during construction.

Stream Culvert Installation Procedure EV-07

N.T.S. Source: VHB LD_

TABLE

CHANNEL DESIGNATION	W	T	D	STONE DIA. (D_{50})



Riprap Channel 1/16

N.T.S. Source: VHB LD_170

MULCH MATERIAL	QUALITY STANDARDS	PER 1,000 SQ-FT	PER ACRE	DEPTH OF APPLICATION
WOOD CHIPS OR SHAVINGS	AIR DRIED, FREE OF OBJECTIONABLE MATERIAL	500 – 900 LBS	10 – 20 TONS	2±0"?"
WOOD FIBER CELLULOSE (PARTIALLY DIGESTED WOOD FIBERS)	MADE FROM NATURAL WOOD USUALLY WITH GREEN DYE AND DISPERSING AGENT	50 LBS	2,000 LBS	N/A
GRAVEL, CRUSHED STONE OR SLAG	WASHED; SIZE 2B OR 3A – 1 1/2"	9 CY	405 CY	3"
HAY OR STRAW	AIR-DRIED; FREE OF UNDESIRABLE SEEDS AND COURSE MATERIALS	90 – 100 LBS, 2–3 BALES	2 TONS (100–120 BALES)	COVER ABOUT 90% SURFACE
COMPOST	UP TO 3" PIECES, MODERATELY TO HIGHLY STABLE	3 – 9 CY	3 – 9 CY	1–3"
Erosion Control Mix	WELL-GRADED MIXTURE OF PARTICLE SIZES. ORGANIC CONTENT BETWEEN 80–100% DRY WEIGHT. PARTICLE SIZE SHALL PASS 6" SCREEN (100%)	*Slopes 3(Hz.):1(Vert.) = 2 inch depth plus additional 1/2 inch depth per 20 ft. of slope up to 100 ft. **Slopes between 3(Hz.):1(Vert.) and 2(Hz.):1(Vert.) = 4 inch depth plus additional 1/2 inch per 20 ft. of slope up to 100 ft. ***Slopes steeper than 2(Hz.):1(Vert.) applicability to specific site and mulch depth to be reviewed and approved prior to use by OPSC or EPSC Specialist		

Notes:

1. APPLY TACKIFIER AS NEEDED TO MINIMIZE POTENTIAL FOR MULCH TO BLOW AWAY.
2. MULCH MUST NOT CONTAIN INVASIVE PLANT SPECIES. (SEEDS OR SEEDLINGS)
3. TACKIFIER MAY BE WATER, NETTING, OR SIMILAR.

Mulch Table EV-08

N.T.S. Source: VHB LD_

DIVERSION WITH EXCAVATION

DIVERSION WITH FILL

NOTES

1. RUNOFF SHALL BE DIVERTED FROM STORMWATER ROADSIDE BUFFERS THAT ARE CONSTRUCTED ON FILL OR RESHAPED SLOPES UNTIL A DENSE SOD IS ESTABLISHED, OR THOSE AREAS MUST BE PROTECTED BY A 3" LAYER OF EROSION CONTROL MIX OR OTHER WOODWASTE MATERIAL APPROVED BY MAINEDEP BEFORE STORMWATER IS DIRECTED TO IT.
2. ALL DIVERSION DIKES AND BERMS SHOULD BE COMPACTED AND STABILIZED WITH MATERIAL THAT IS APPROPRIATE FOR THE SLOPE AND EXPECTED RUNOFF, SUCH AS EROSION CONTROL BLANKETS, GRAVEL, OR RIPRAP.

Runoff Diversion

N.T.S. Source: Maine DEP Erosion and Sediment Control BMP Manual

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

INSTALLATION

1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.
3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT SURFACE WATERS.
4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS.
5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "RE-VEGETATION" MEASURES FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.
6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "RE-VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING.
7. GRADE DEVELOPMENT TO DRAIN TO RAIN GARDEN. ENSURE AREAS UPHILL OF THE DEVELOPMENT ARE DIVERTED AWAY FROM THE RAIN GARDEN.

MAINTENANCE

ALL MEASURES WILL BE INSPECTED WEEKLY AND BEFORE AND AFTER EVERY SIGNIFICANT STORM EVENT DURING CONSTRUCTION.

EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR VEGETATION GROWTH. FIX THESE PROBLEMS AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A RAIN GARDEN OR DITCH.

NOTE: PLEASE REFERENCE THE WRITTEN EROSION AND SEDIMENTATION CONTROL PLAN FOR ADDITIONAL GUIDANCE.

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No.	Revision	Date	Appvd.

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Date: April 29, 2022

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Drawing Title: Erosion Prevention and Sediment Control Details

Drawing Number: C-1.05

Sheet 61 of 63

Project Number: 55310.01

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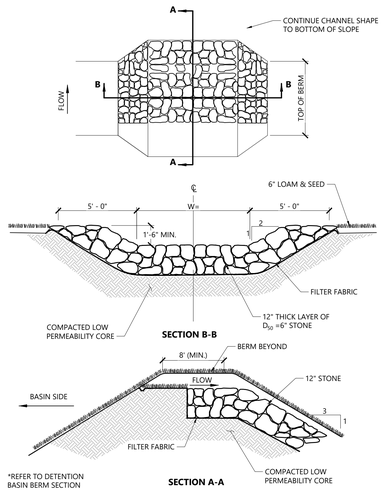
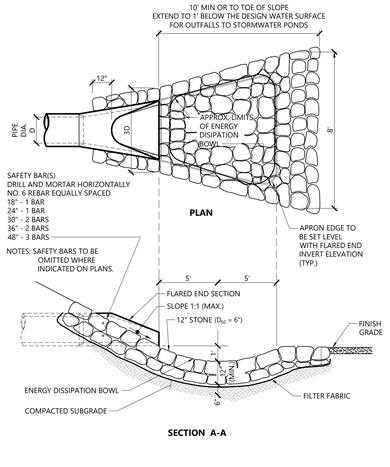


Overflow Stone Spillway

1/16

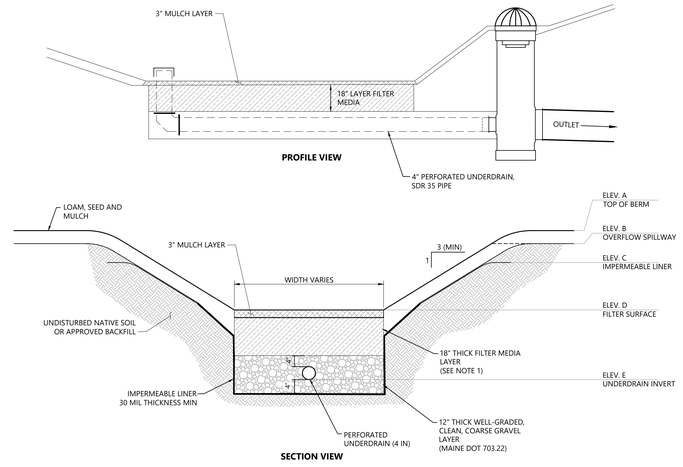
N.T.S. Source: VHB LD_161



Flared End Section (FES) with Stone Protection

1/16

N.T.S. Source: VHB LD_134



Vegetated Soil Filter (VSF) Detail

2/17

N.T.S. Source: VHB

NOTES

1. VEGETATED SOIL FILTER REQUIREMENTS PER MAINE DEP CHAPTER 500 AND MAINE STORMWATER MANAGEMENT DESIGN MANUAL VOLUME III, LATEST EDITIONS, MINIMUM REQUIREMENTS PER THE DEVELOPMENT:
   - DRAIN TIME = 24-48 HOURS, ASSUMES RATE OF 3 INCHES/HOUR.
2. FILTER MEDIA SHALL CONSIST (BY VOLUME) OF:
   - 50% SAND (ASTM C-33 CONCRETE SAND),
   - 20% SANDY LOAM TO FINE SANDY LOAM CONFORMING TO THE FOLLOWING GRADATION:

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
NO. 4	75-95
NO. 10	60-90
NO. 40	35-85
NO. 200	20-70
200 (CLAY SIZE)	< 2.0

   - 30% MATURE COMPOSTED WOODY FIBERS AND FINE SHREDDED BARK MULCH, SUPERHUMUS OR EQUIVALENT.
   - RESULTING MIXTURE SHALL HAVE 8% TO 12% PASSING THE NO. 200 SIEVE AND A CLAY CONTENT OF LESS THAN 2%.
   - FILTER MEDIA SHALL BE FIELD TESTED TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS AND HAVE SUFFICIENT FINES TO ENSURE FILTRATION OF FINE PARTICLES. GRADATION SHALL BE ADJUSTED, IF REQUIRED, TO MEET THE REQUIRED DRAW DOWN TIME. ADJUSTED GRADATIONS AND DRAINAGE TIME SHALL BE SUBMITTED TO DESIGN ENGINEER FOR REVIEW AND APPROVAL.
3. SURFACE AND SIDE SLOPES OF FILTER SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX AND MULCHED.
4. PERFORATED UNDERDRAIN PIPE SHALL BE LAID AS SHOWN IN PLAN VIEW, NO GREATER THAN 15' ON CENTER, TO DRAIN THE ENTIRE FILTER AREA.

VEGETATED SOIL FILTER ELEVATION TABLE

VSF #	A	B	C	D	E
P4	1808.00	1805.80	1805.80	1802.00	1799.33
P5	1838.00	1837.00	1837.00	1834.00	1831.33
P6	1828.00	1827.80	1827.80	1826.00	1823.33
P9	1950.00	1945.80	1945.80	1944.00	1941.33
P12	1474.00	1473.00	1473.00	1469.00	1466.33
P15	2090.00	2088.30	2088.30	2086.00	2083.33
P16	2125.00	2124.00	2124.00	2430.00	2119.33

NOTES

1. LOW PERMEABILITY CORE MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT.
2. WHERE PIPES PENETRATE THE LOW PERMEABILITY CORE, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY CORE MATERIAL.
3. THE BERM SECTION IS SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Detention Basin Berm Section

1/16

N.T.S. Source: VHB LD_160

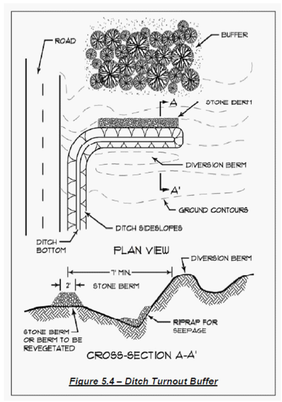


Figure 5.4 – Ditch Turnout Buffer

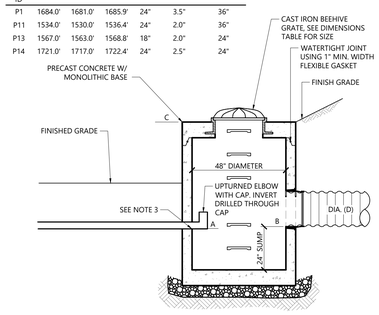
- *Stone Berm Specifications*: The stone berm to which the ditch turn-out delivers the runoff must be at least 20 feet in length and must be constructed along the contour. It must be at least one- foot high and two feet across the top with 2:1 side slopes.
- *Stone Size*: The stone must be coarse enough that it will not clog with sediment. Stone for stone bermed level lip spreaders must consist of sound durable rock that will not disintegrate by exposure to water or weather. Fieldstone, rough quarried stone, blasted ledge rock or tailings may be used. The rock must be well graded with a median size of approximately 3 inches and a maximum size of 6 inches. See Table 5.4 above.

Ditch Turnout Buffer

N.T.S. Source: MDEP

DIMENSIONS TABLE

WET POND ID	A	B	C	D	ORIFICE "A" DIAMETER	BEEHIVE GRATE SIZE
P1	1684.0'	1681.0'	1685.9'	24"	3.5"	36"
P11	1534.0'	1530.0'	1536.4'	24"	2.0"	36"
P13	1567.0'	1563.0'	1568.8'	18"	2.0"	24"
P14	1721.0'	1717.0'	1722.4'	24"	2.5"	24"



NOTES:

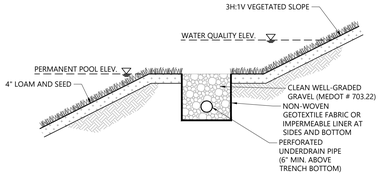
1. ALUMINUM "DROP-FRONT" MANHOLE STEPS, CAST IN PLACE, SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER
3. MANHOLE OPENING SHALL BE SET IN STRUCTURE COVER AS ALIGNED WITH LADDER ACCESS.

Wet Pond Outlet Control Structure

1/16

N.T.S. Source: VHB LD_171

MEDOT SPECIFICATIONS FOR TYPE B UNDERDRAINS (MEDOT # 703.22)	
SIEVE SIZE	% BY WEIGHT
1"	90-100
½"	75-100
NO. 4	50-100
NO. 20	15-80
NO. 50	0-15
NO. 200	0-5



Wet Pond Gravel Bench

N.T.S. Source: VHB

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LICENSED PROFESSIONAL ENGINEER

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Sheet 62 of 63

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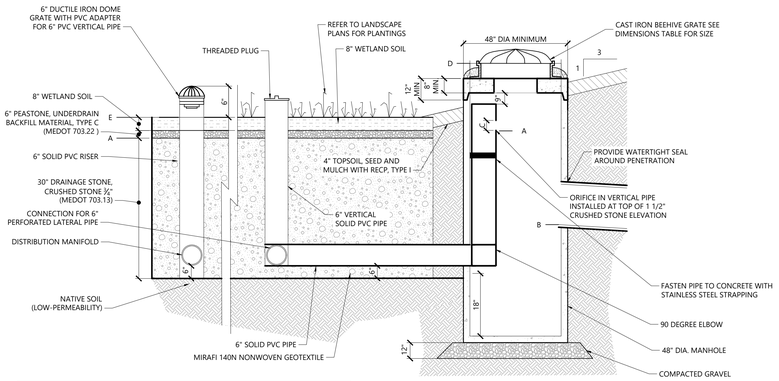


GRAVEL WETLAND ELEVATION TABLE

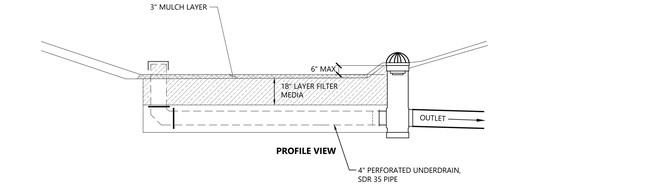
GW #	A	B	C	D	E	Beehive Grate Size
P2	1746.66	1746.00	1" Ø	1749.00	1747.00	24" Ø
P3	1750.66	1750.00	1" Ø	1754.60	1752.50	24" Ø
P7	1878.66	1878.00	1" Ø	1882.00	1879.00	24" Ø
P8	1932.66	1932.00	1" Ø	1935.50	1933.00	24" Ø
P10	1977.66	1977.00	1" Ø	1983.00	1978.00	30" Ø
P17	1874.66	1874.00	1" Ø	1877.70	1875.00	24" Ø

GRAVEL WETLAND TYPICAL

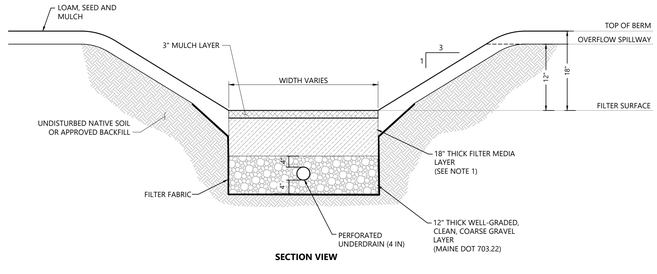
Gravel Wetland (Single Bay)

10/21

N.T.S. Source: VHB LD_VT



PROFILE VIEW



SECTION VIEW

NOTES

1. RAINGARDEN REQUIREMENTS PER MAINE DEP CHAPTER 500 AND MAINE STORMWATER MANAGEMENT DESIGN MANUAL VOLUME III, LATEST EDITIONS. MINIMUM REQUIREMENTS PER THE DEVELOPMENT:
   - DRAIN TIME = 24-48 HOURS, ASSUMES RATE OF 3 INCHES/HOUR.
2. FILTER MEDIA SHALL CONSIST (BY VOLUME) OF:
   - 70-80% COARSE LOAMY SAND, MEETING THE FOLLOWING GRADATION:

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
NO. 10	85-100
NO. 20	70-100
NO. 60	15-40
NO. 200	8-10

   - 20-30% MULCH, MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE NO. 200 SIEVE.
   - RESULTING MIXTURE SHALL HAVE NO MORE THAN 10% PASSING THE NO. 200 SIEVE.
   - FILTER MEDIA SHALL BE FIELD TESTED TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS AND HAVE SUFFICIENT FINES TO ENSURE FILTRATION OF FINE PARTICLES. GRADATION SHALL BE ADJUSTED, IF REQUIRED, TO MEET THE REQUIRED DRAW DOWN TIME. ADJUSTED GRADATIONS AND DRAINAGE TIME SHALL BE SUBMITTED TO DESIGN ENGINEER FOR REVIEW AND APPROVAL.
3. SURFACE AND SIDE SLOPES OF FILTER SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX AND MULCHED.
4. PERFORATED UNDERDRAIN PIPE SHALL BE LAID AS SHOWN IN PLAN VIEW, NO GREATER THAN 15' ON CENTER, TO DRAIN THE ENTIRE FILTER AREA.
5. MINIMUM FILTER BED SURFACE SHALL BE 7% OF THE CONTRIBUTING IMPERVIOUS AREA PLUS 3% OF THE CONTRIBUTING LANDSCAPING AREA.
6. MAXIMUM CONTRIBUTING AREA TO ANY SINGLE RAINGARDEN = 1 ACRE.
7. RUNOFF FROM OFFSITE DRAINAGE AREAS SHALL BE DIVERTED AROUND THE FILTER.
8. AVOID COMPACTING UNDERDRAIN BEDDING AND SOIL FILTER MEDIA DURING CONSTRUCTION. OVER-COMPACTED SOILS WILL NOT ALLOW PROPER WATER MIGRATION THROUGH THE SOIL SECTION; FILTER BEDS ARE INTENDED TO DRAIN DRY WITHIN 24 HOURS.
9. ALL DEVELOPED AREA ON THE LOT MUST DRAIN TO A RAIN GARDEN. PROVIDE ONE FILTER FOR THE LOT WITH THE TOTAL AREA NOTED, OR SPLIT THE AREA INTO MULTIPLE SMALLER GARDENS. SHAPES CAN VARY TO ACCOMMODATE NATIVE TERRAIN AND/OR LANDSCAPING.
10. EACH HOMEOWNER OF A LOT THAT REQUIRES A RAIN GARDEN MUST CHOOSE BETWEEN A GRASSED GARDEN OR A PLANTED GARDEN. SEE NOTES TO RIGHT.
11. CONSTRUCT FILTER SUCH THAT BERM IS NO MORE THAN 18" ABOVE THE MULCH SURFACE.
12. UNDERDRAIN GRANULAR MATERIAL SHALL BE WELL GRADED, CLEAN, COARSE GRAVEL MEETING THE MEDOT SPECIFICATION 703.22 UNDERDRAIN TYPE B FOR UNDERDRAIN BACKFILL

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
1"	90-100
½"	75-100
NO. 4	50-100
NO. 20	15-80
NO. 50	0-15
NO. 200	0-5

13. UNDERDRAINS SHALL MAINTAIN A MINIMUM OF 1% FOR POSITIVE DRAINAGE.

Rain Garden (RG) Detail

2/17

N.T.S. Source: VHB

RAIN GARDEN ELEVATION TABLE

Lot ID	Rain Garden ID	Max Impervious Surface (SF)	Max Landscaped Area - Lawn (SF)	Max Total Drainage Area (SF)	Min. Filter Surface Area (SF)	Orifice Diameter (in.)	WQv (CF)
R1	RG 1	10,000	20,700	30,700	1,321	1	1,523
R2	RG 2	10,000	20,700	30,700	1,321	1	1,523
R3	RG 3	7,000	10,000	17,000	790	1	917
R4	RG 4	7,000	10,000	17,000	790	1	917
R6	RG 6	7,000	10,000	17,000	790	1	917
R7	RG 7	7,000	10,000	17,000	790	1	917
R8	RG 8	7,000	10,000	17,000	790	1	917
R9	RG 9	7,000	10,000	17,000	790	1	917
R10	RG 10	7,000	10,000	17,000	790	1	917
R11	RG 11	7,000	10,000	17,000	790	1	917
R12	RG 12	10,000	20,700	30,700	1,321	1	1,523
R13	RG 13	10,000	20,700	30,700	1,321	1	1,523
R14	RG 14	13,000	24,000	37,000	1,630	1	1,883
R15	RG 15	13,000	24,000	37,000	1,630	1	1,883
R16	RG 16	13,000	24,000	37,000	1,630	1	1,883
R17	RG 17A	15,250	28,300	43,550	1,917	1	2,214
R17	RG 17B	15,250	28,300	43,550	1,917	1	2,214
R18	RG 18	13,000	24,000	37,000	1,630	1	1,883
R19	RG 19	13,000	24,000	37,000	1,630	1	1,883
R20	RG 20	13,000	24,000	37,000	1,630	1	1,883
R21	RG 21	10,000	20,700	30,700	1,321	1	1,523
R22	RG 22	10,000	20,700	30,700	1,321	1	1,523
R23	RG 23	10,000	20,700	30,700	1,321	1	1,523
R24	RG 24	13,000	24,000	37,000	1,630	1	1,883
R25	RG 25	7,000	10,000	17,000	790	1	917
R26	RG 26	7,000	10,000	17,000	790	1	917
R27	RG 27	7,000	10,000	17,000	790	1	917
R28	RG 28	7,000	10,000	17,000	790	1	917
R29	RG 29	7,000	10,000	17,000	790	1	917
R30	RG 30	7,000	10,000	17,000	790	1	917
R31	RG 31	10,000	20,700	30,700	1,321	1	1,523
R32	RG 32	10,000	20,700	30,700	1,321	1	1,523
R33	RG 33	7,000	10,000	17,000	790	1	917
R34	RG 34	7,000	10,000	17,000	790	1	917
R35	RG 35	7,000	10,000	17,000	790	1	917
R36	RG 36	7,000	10,000	17,000	790	1	917
R37	RG 37	7,000	10,000	17,000	790	1	917
R38	RG 38	10,000	20,700	30,700	1,321	1	1,523
R39	RG 39	10,000	20,700	30,700	1,321	1	1,523
R40	RG 40	10,000	20,700	30,700	1,321	1	1,523
R41	RG 41	7,000	10,000	17,000	790	1	917
R42	RG 42	10,000	20,700	30,700	1,321	1	1,523
R43	RG 43	10,000	20,700	30,700	1,321	1	1,523
R44	RG 44	10,000	20,700	30,700	1,321	1	1,523
R45	RG 45	10,000	20,700	30,700	1,321	1	1,523
R46	RG 46	10,000	20,700	30,700	1,321	1	1,523
R47	RG 47	10,000	20,700	30,700	1,321	1	1,523
R48	RG 48	10,000	20,700	30,700	1,321	1	1,523
R49	RG 49	10,000	20,700	30,700	1,321	1	1,523
R50	RG 50	10,000	20,700	30,700	1,321	1	1,523
R51	RG 51	7,000	10,000	17,000	790	1	917
R52	RG 52	7,000	10,000	17,000	790	1	917

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for Review Date April 29, 2022

Not For Construction

Drawing Title
Stormwater Details

Drawing Number
C-1.07

Sheet 63 of 63

Project Number
55310.01

Saved Wednesday, April 27, 2022 2:35:47 PM NDSMITH Plotted Friday, April 29, 2022 4:31:12 PM Zelda Dively

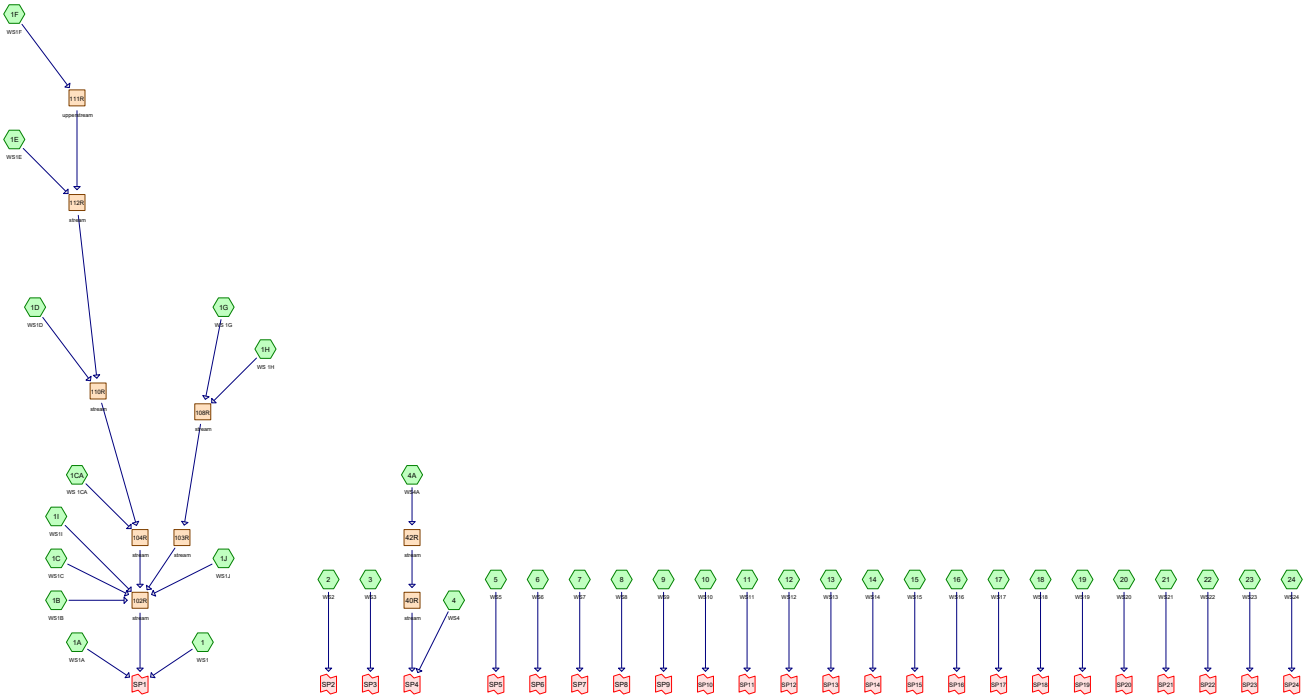
APPENDIX 12-2
STORMWATER CALCULATION PACKAGE

Sugarloaf West Mountain Project
Stormwater Management Calculations

Table of Contents

Pre-Development Model (HydroCAD Routings)

Post-Development Model (HydroCAD Routings)



Subcat Reach Pond Link

Routing Diagram for 55310.01-West Mountain-EX
Prepared by VHB, Printed 4/29/2022
HydroCAD® 10.10-5a s/n 01038 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.00	2
2	2-Year	Type II 24-hr		Default	24.00	1	2.40	2
3	10-Year	Type II 24-hr		Default	24.00	1	3.40	2
4	25-Year	Type II 24-hr		Default	24.00	1	4.20	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
195.470	70	Existing Woods, Good, HSG C (1D, 1E, 1F, 1G, 1H, 1I, 1J, 4, 4A, 6, 7, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24)
286.138	77	Existing Woods, Good, HSG D (1, 1A, 1B, 1C, 1CA, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 2, 3, 4, 4A, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24)
6.147	98	Existing impervious, HSG C (1D, 1E, 1F, 20)
12.874	98	Existing impervious, HSG D (1, 1B, 1C, 1CA, 1D, 1E, 1F, 1G, 1I, 1J, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24)
55.507	71	Existing meadow, non-grazed, HSG C (1D, 1E, 1F, 1G, 1H, 1J, 4, 4A, 6, 7, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24)
73.056	78	Existing meadow, non-grazed, HSG D (1, 1A, 1B, 1C, 1CA, 1D, 1E, 1F, 1G, 1H, 1J, 2, 3, 4, 4A, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24)
629.192	**75**	**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS1 Runoff Area=3.816 ac 0.50% Impervious Runoff Depth=0.45"
Flow Length=1,200' Tc=20.2 min CN=77 Runoff=1.61 cfs 0.143 af

Subcatchment1A: WS1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=821' Tc=28.5 min CN=77 Runoff=1.02 cfs 0.115 af

Subcatchment1B: WS1B Runoff Area=8.471 ac 5.02% Impervious Runoff Depth=0.48"
Flow Length=2,480' Tc=14.1 min CN=78 Runoff=4.88 cfs 0.342 af

Subcatchment1C: WS1C Runoff Area=17.349 ac 18.91% Impervious Runoff Depth=0.60"
Flow Length=3,667' Tc=47.4 min CN=81 Runoff=5.99 cfs 0.874 af

Subcatchment1CA: WS 1CA Runoff Area=7.535 ac 41.66% Impervious Runoff Depth=0.85"
Flow Length=949' Tc=10.1 min CN=86 Runoff=9.62 cfs 0.533 af

Subcatchment1D: WS1D Runoff Area=79.398 ac 8.16% Impervious Runoff Depth=0.38"
Flow Length=6,450' Tc=43.6 min CN=75 Runoff=15.30 cfs 2.521 af

Subcatchment1E: WS1E Runoff Area=31.901 ac 1.29% Impervious Runoff Depth=0.32"
Flow Length=4,125' Tc=55.4 min CN=73 Runoff=3.99 cfs 0.851 af

Subcatchment1F: WS1F Runoff Area=40.294 ac 0.90% Impervious Runoff Depth=0.35"
Flow Length=4,191' Tc=48.6 min CN=74 Runoff=6.35 cfs 1.175 af

Subcatchment1G: WS 1G Runoff Area=33.788 ac 0.01% Impervious Runoff Depth=0.35"
Flow Length=4,645' Tc=34.6 min CN=74 Runoff=6.78 cfs 0.985 af

Subcatchment1H: WS 1H Runoff Area=59.491 ac 0.00% Impervious Runoff Depth=0.35"
Flow Length=4,804' Tc=55.9 min CN=74 Runoff=8.44 cfs 1.734 af

Subcatchment1I: WS1I Runoff Area=15.102 ac 0.81% Impervious Runoff Depth=0.41"
Flow Length=3,069' Tc=31.2 min CN=76 Runoff=4.20 cfs 0.521 af

Subcatchment1J: WS1J Runoff Area=22.346 ac 1.03% Impervious Runoff Depth=0.41"
Flow Length=3,101' Tc=25.4 min CN=76 Runoff=7.16 cfs 0.770 af

Subcatchment2: WS2 Runoff Area=4.825 ac 1.45% Impervious Runoff Depth=0.45"
Flow Length=1,847' Tc=44.0 min CN=77 Runoff=1.17 cfs 0.180 af

Subcatchment3: WS3 Runoff Area=1.513 ac 4.49% Impervious Runoff Depth=0.48"
Flow Length=681' Tc=18.2 min CN=78 Runoff=0.75 cfs 0.061 af

Subcatchment4: WS4 Runoff Area=20.325 ac 1.41% Impervious Runoff Depth=0.41"
Flow Length=3,739' Tc=18.0 min CN=76 Runoff=8.21 cfs 0.701 af

Subcatchment4A: WS4A Runoff Area=38.315 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=3,929' Tc=63.9 min CN=75 Runoff=5.59 cfs 1.216 af

Subcatchment5: WS5 Runoff Area=3.053 ac 0.39% Impervious Runoff Depth=0.45"
Flow Length=1,271' Tc=33.9 min CN=77 Runoff=0.89 cfs 0.114 af

Subcatchment6: WS6 Runoff Area=29.113 ac 0.99% Impervious Runoff Depth=0.41"
Flow Length=4,403' Tc=38.7 min CN=76 Runoff=6.92 cfs 1.004 af

Subcatchment7: WS7 Runoff Area=26.547 ac 0.94% Impervious Runoff Depth=0.41"
Flow Length=4,636' Tc=49.7 min CN=76 Runoff=5.26 cfs 0.915 af

Subcatchment8: WS8 Runoff Area=0.343 ac 19.24% Impervious Runoff Depth=0.60"
Flow Length=327' Tc=1.4 min CN=81 Runoff=0.40 cfs 0.017 af

Subcatchment9: WS9 Runoff Area=8.117 ac 2.27% Impervious Runoff Depth=0.38"
Flow Length=2,783' Tc=50.5 min CN=75 Runoff=1.41 cfs 0.258 af

Subcatchment10: WS10 Runoff Area=0.758 ac 3.56% Impervious Runoff Depth=0.48"
Flow Length=424' Tc=14.8 min CN=78 Runoff=0.43 cfs 0.031 af

Subcatchment11: WS11 Runoff Area=16.815 ac 1.46% Impervious Runoff Depth=0.38"
Flow Length=4,402' Tc=80.4 min CN=75 Runoff=2.08 cfs 0.534 af

Subcatchment12: WS12 Runoff Area=9.755 ac 2.26% Impervious Runoff Depth=0.38"
Flow Length=2,300' Tc=34.7 min CN=75 Runoff=2.22 cfs 0.310 af

Subcatchment13: WS13 Runoff Area=22.285 ac 1.05% Impervious Runoff Depth=0.32"
Flow Length=6,015' Tc=100.4 min CN=73 Runoff=1.86 cfs 0.595 af

Subcatchment14: WS14 Runoff Area=3.587 ac 5.07% Impervious Runoff Depth=0.38"
Flow Length=1,401' Tc=32.5 min CN=75 Runoff=0.85 cfs 0.114 af

Subcatchment15: WS15 Runoff Area=37.339 ac 0.18% Impervious Runoff Depth=0.32"
Flow Length=6,278' Tc=92.0 min CN=73 Runoff=3.31 cfs 0.997 af

Subcatchment16: WS16 Runoff Area=0.416 ac 18.75% Impervious Runoff Depth=0.60"
Flow Length=267' Tc=11.9 min CN=81 Runoff=0.34 cfs 0.021 af

Subcatchment17: WS17 Runoff Area=7.386 ac 2.63% Impervious Runoff Depth=0.32"
Flow Length=2,290' Tc=37.1 min CN=73 Runoff=1.23 cfs 0.197 af

Subcatchment18: WS18 Runoff Area=1.599 ac 1.31% Impervious Runoff Depth=0.29"
Flow Length=978' Tc=26.1 min CN=72 Runoff=0.29 cfs 0.039 af

Subcatchment19: WS19 Runoff Area=7.975 ac 0.10% Impervious Runoff Depth=0.29"
Flow Length=2,264' Tc=47.0 min CN=72 Runoff=0.97 cfs 0.194 af

Subcatchment20: WS20 Runoff Area=40.004 ac 3.65% Impervious Runoff Depth=0.35"
Flow Length=4,364' Tc=55.5 min CN=74 Runoff=5.73 cfs 1.166 af

Subcatchment21: WS21 Runoff Area=6.228 ac 0.32% Impervious Runoff Depth=0.32"
Flow Length=1,797' Tc=39.9 min CN=73 Runoff=0.98 cfs 0.166 af

Subcatchment22: WS22 Runoff Area=7.516 ac 0.98% Impervious Runoff Depth=0.45"
Flow Length=2,111' Tc=47.3 min CN=77 Runoff=1.73 cfs 0.281 af

Subcatchment23: WS23 Runoff Area=2.642 ac 1.48% Impervious Runoff Depth=0.41"
Flow Length=1,122' Tc=28.3 min CN=76 Runoff=0.79 cfs 0.091 af

Subcatchment24: WS24 Runoff Area=10.169 ac 4.49% Impervious Runoff Depth=0.48"
Flow Length=2,477' Tc=51.1 min CN=78 Runoff=2.47 cfs 0.410 af

Reach 40R: stream Avg. Flow Depth=0.25' Max Vel=3.54 fps Inflow=5.45 cfs 1.216 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=5.43 cfs 1.216 af

Reach 42R: stream Avg. Flow Depth=0.24' Max Vel=4.38 fps Inflow=5.59 cfs 1.216 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=5.45 cfs 1.216 af

Reach 102R: stream Avg. Flow Depth=0.71' Max Vel=5.27 fps Inflow=47.96 cfs 10.306 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=47.80 cfs 10.306 af

Reach 103R: stream Avg. Flow Depth=0.38' Max Vel=4.17 fps Inflow=13.21 cfs 2.719 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=13.18 cfs 2.719 af

Reach 104R: stream Avg. Flow Depth=0.51' Max Vel=5.63 fps Inflow=24.50 cfs 5.080 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=24.43 cfs 5.080 af

Reach 108R: stream Avg. Flow Depth=0.32' Max Vel=5.02 fps Inflow=13.50 cfs 2.719 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=13.21 cfs 2.719 af

Reach 110R: stream Avg. Flow Depth=0.53' Max Vel=6.80 fps Inflow=23.73 cfs 4.547 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=23.62 cfs 4.547 af

Reach 111R: upperstream Avg. Flow Depth=0.34' Max Vel=5.52 fps Inflow=6.35 cfs 1.175 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=6.32 cfs 1.175 af

Reach 112R: stream Avg. Flow Depth=0.34' Max Vel=5.65 fps Inflow=10.29 cfs 2.026 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=10.21 cfs 2.026 af

Link SP1: Inflow=48.51 cfs 10.564 af
Primary=48.51 cfs 10.564 af

Link SP10: Inflow=0.43 cfs 0.031 af
Primary=0.43 cfs 0.031 af

Link SP11: Inflow=2.08 cfs 0.534 af
Primary=2.08 cfs 0.534 af

Link SP12: Inflow=2.22 cfs 0.310 af
Primary=2.22 cfs 0.310 af

Link SP13: Inflow=1.86 cfs 0.595 af
Primary=1.86 cfs 0.595 af

Link SP14: Inflow=0.85 cfs 0.114 af
Primary=0.85 cfs 0.114 af

Link SP15: Inflow=3.31 cfs 0.997 af
Primary=3.31 cfs 0.997 af

Link SP16: Inflow=0.34 cfs 0.021 af
Primary=0.34 cfs 0.021 af

Link SP17: Inflow=1.23 cfs 0.197 af
Primary=1.23 cfs 0.197 af

Link SP18: Inflow=0.29 cfs 0.039 af
Primary=0.29 cfs 0.039 af

Link SP19: Inflow=0.97 cfs 0.194 af
Primary=0.97 cfs 0.194 af

Link SP2: Inflow=1.17 cfs 0.180 af
Primary=1.17 cfs 0.180 af

Link SP20: Inflow=5.73 cfs 1.166 af
Primary=5.73 cfs 1.166 af

Link SP21: Inflow=0.98 cfs 0.166 af
Primary=0.98 cfs 0.166 af

Link SP22: Inflow=1.73 cfs 0.281 af
Primary=1.73 cfs 0.281 af

Link SP23: Inflow=0.79 cfs 0.091 af
Primary=0.79 cfs 0.091 af

Link SP24: Inflow=2.47 cfs 0.410 af
Primary=2.47 cfs 0.410 af

Link SP3: Inflow=0.75 cfs 0.061 af
Primary=0.75 cfs 0.061 af

Link SP4: Inflow=8.21 cfs 1.917 af
Primary=8.21 cfs 1.917 af

Link SP5: Inflow=0.89 cfs 0.114 af
Primary=0.89 cfs 0.114 af

Link SP6: Inflow=6.92 cfs 1.004 af
Primary=6.92 cfs 1.004 af

Link SP7: Inflow=5.26 cfs 0.915 af
Primary=5.26 cfs 0.915 af

Link SP8: Inflow=0.40 cfs 0.017 af
Primary=0.40 cfs 0.017 af

Link SP9: Inflow=1.41 cfs 0.258 af
Primary=1.41 cfs 0.258 af

Total Runoff Area = 629.192 ac Runoff Volume = 20.175 af Average Runoff Depth = 0.38"
96.98% Pervious = 610.171 ac 3.02% Impervious = 19.021 ac

Summary for Subcatchment 1: WS1

Runoff = 1.61 cfs @ 12.16 hrs, Volume= 0.143 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.019	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.765	77	Existing Woods, Good, HSG D
3.816	77	Weighted Average
3.797		99.50% Pervious Area
0.019		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.0	358	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	299	0.0600	9.68	232.28	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
20.2	1,200	Total			

Summary for Subcatchment 1A: WS1A

Runoff = 1.02 cfs @ 12.27 hrs, Volume= 0.115 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.011	78	Existing meadow, non-grazed, HSG D
3.065	77	Existing Woods, Good, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
28.5	821	Total			

Summary for Subcatchment 1B: WS1B

Runoff = 4.88 cfs @ 12.08 hrs, Volume= 0.342 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.425	98	Existing impervious, HSG D
0.427	78	Existing meadow, non-grazed, HSG D
7.619	77	Existing Woods, Good, HSG D
8.471	78	Weighted Average
8.046		94.98% Pervious Area
0.425		5.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.4	336	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	339	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	336	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	278	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	283	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	118	0.0800	13.91	41.73	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	164	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	83	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
14.1	2,480	Total			

Summary for Subcatchment 1C: WS1C

Runoff = 5.99 cfs @ 12.50 hrs, Volume= 0.874 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
3.281	98	Existing impervious, HSG D
3.704	78	Existing meadow, non-grazed, HSG D
10.364	77	Existing Woods, Good, HSG D
17.349	81	Weighted Average
14.068		81.09% Pervious Area
3.281		18.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	172	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	164	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.9	77	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	157	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.5	350	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	219	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	251	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	316	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	73	0.1900	21.44	64.31	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	300	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	179	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
10.2	342	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	236	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	199	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	224	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	360	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
47.4	3,667	Total			

Summary for Subcatchment 1CA: WS 1CA

Runoff = 9.62 cfs @ 12.02 hrs, Volume= 0.533 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
3.139	98	Existing impervious, HSG D
0.835	78	Existing meadow, non-grazed, HSG D
3.561	77	Existing Woods, Good, HSG D
7.535	86	Weighted Average
4.396		58.34% Pervious Area
3.139		41.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
3.0	89	0.0400	0.50		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	161	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	391	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
3.6	208	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.1	949	Total			

Summary for Subcatchment 1D: WS1D

Runoff = 15.30 cfs @ 12.49 hrs, Volume= 2.521 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
4.794	98	Existing impervious, HSG C
1.682	98	Existing impervious, HSG D
15.372	71	Existing meadow, non-grazed, HSG C
10.464	78	Existing meadow, non-grazed, HSG D
27.478	70	Existing Woods, Good, HSG C
19.608	77	Existing Woods, Good, HSG D
79.398	75	Weighted Average
72.922		91.84% Pervious Area
6.476		8.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.2300	0.27		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.9	388	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	312	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.8	440	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	123	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.6	266	0.1300	7.32		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.2	457	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	378	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	258	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	263	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
4.2	242	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	150	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	256	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	314	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	390	0.0500	8.83	212.04	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00'

n= 0.050 Mountain streams w/large boulders

43.6 6,450 Total

Summary for Subcatchment 1E: WS1E

Runoff = 3.99 cfs @ 12.69 hrs, Volume= 0.851 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.328	98	Existing impervious, HSG C
0.082	98	Existing impervious, HSG D
3.846	71	Existing meadow, non-grazed, HSG C
4.272	78	Existing meadow, non-grazed, HSG D
17.223	70	Existing Woods, Good, HSG C
6.150	77	Existing Woods, Good, HSG D
31.901	73	Weighted Average
31.491		98.71% Pervious Area
0.410		1.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	113	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	154	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	191	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	146	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	137	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	204	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	134	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	286	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	261	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	341	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	423	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.9	196	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	223	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.2	189	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
55.4	4,125	Total			

Summary for Subcatchment 1F: WS1F

Runoff = 6.35 cfs @ 12.58 hrs, Volume= 1.175 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.002	98	Existing impervious, HSG C
0.362	98	Existing impervious, HSG D
4.817	71	Existing meadow, non-grazed, HSG C
9.293	78	Existing meadow, non-grazed, HSG D
15.585	70	Existing Woods, Good, HSG C
10.235	77	Existing Woods, Good, HSG D
40.294	74	Weighted Average
39.930		99.10% Pervious Area
0.364		0.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	144	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
48.6	4,191	Total			

Summary for Subcatchment 1G: WS 1G

Runoff = 6.78 cfs @ 12.37 hrs, Volume= 0.985 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.906	71	Existing meadow, non-grazed, HSG C
12.918	70	Existing Woods, Good, HSG C
0.004	98	Existing impervious, HSG D
3.805	78	Existing meadow, non-grazed, HSG D
16.155	77	Existing Woods, Good, HSG D
33.788	74	Weighted Average
33.784		99.99% Pervious Area
0.004		0.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.1200	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.3	182	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	443	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	118	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	458	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	564	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	366	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	162	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	449	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	450	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	408	0.2100	14.99	149.94	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.7	554	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	391	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
34.6	4,645	Total			

Summary for Subcatchment 1H: WS 1H

Runoff = 8.44 cfs @ 12.69 hrs, Volume= 1.734 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
2.007	71	Existing meadow, non-grazed, HSG C
22.781	70	Existing Woods, Good, HSG C
4.416	78	Existing meadow, non-grazed, HSG D
30.287	77	Existing Woods, Good, HSG D
59.491	74	Weighted Average
59.491		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	59	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.5	105	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	330	0.3600	4.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	212	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	108	0.2400	3.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	346	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	190	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	320	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	411	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	281	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	255	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	223	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	601	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	147	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	403	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	348	0.1600	14.26	199.63	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
0.5	465	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
55.9	4,804	Total			

Summary for Subcatchment 1I: WS1I

Runoff = 4.20 cfs @ 12.31 hrs, Volume= 0.521 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.123	98	Existing impervious, HSG D
2.494	70	Existing Woods, Good, HSG C
12.485	77	Existing Woods, Good, HSG D
15.102	76	Weighted Average
14.979		99.19% Pervious Area
0.123		0.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	293	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	337	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	279	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	199	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	431	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
31.2	3,069	Total			

Summary for Subcatchment 1J: WS1J

Runoff = 7.16 cfs @ 12.23 hrs, Volume= 0.770 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Existing impervious, HSG D
0.095	71	Existing meadow, non-grazed, HSG C
0.159	78	Existing meadow, non-grazed, HSG D
4.342	70	Existing Woods, Good, HSG C
17.520	77	Existing Woods, Good, HSG D
22.346	76	Weighted Average
22.116		98.97% Pervious Area
0.230		1.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.3	269	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	336	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	167	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	486	0.1300	15.28	641.91	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	546	0.1700	17.48	734.06	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	483	0.1200	14.68	616.73	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	426	0.1100	14.06	590.48	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.4	336	0.0900	12.72	534.11	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
25.4	3,101	Total			

Summary for Subcatchment 2: WS2

Runoff = 1.17 cfs @ 12.48 hrs, Volume= 0.180 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.070	98	Existing impervious, HSG D
0.750	78	Existing meadow, non-grazed, HSG D
4.005	77	Existing Woods, Good, HSG D
4.825	77	Weighted Average
4.755		98.55% Pervious Area
0.070		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	49	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	349	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	156	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	279	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	154	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	339	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.3	374	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	147	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
44.0	1,847	Total			

Summary for Subcatchment 3: WS3

Runoff = 0.75 cfs @ 12.13 hrs, Volume= 0.061 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.068	98	Existing impervious, HSG D
0.254	78	Existing meadow, non-grazed, HSG D
1.191	77	Existing Woods, Good, HSG D
1.513	78	Weighted Average
1.445		95.51% Pervious Area
0.068		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	60	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	97	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	169	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	319	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
18.2	681	Total			

Summary for Subcatchment 4: WS4

Runoff = 8.21 cfs @ 12.13 hrs, Volume= 0.701 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.287	98	Existing impervious, HSG D
0.739	71	Existing meadow, non-grazed, HSG C
1.095	78	Existing meadow, non-grazed, HSG D
2.883	70	Existing Woods, Good, HSG C
15.321	77	Existing Woods, Good, HSG D
20.325	76	Weighted Average
20.038		98.59% Pervious Area
0.287		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	56	0.2000	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.4	164	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	417	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	544	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	711	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	404	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	338	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	432	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	424	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	249	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
18.0	3,739	Total			

Summary for Subcatchment 4A: WS4A

Runoff = 5.59 cfs @ 12.80 hrs, Volume= 1.216 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.521	71	Existing meadow, non-grazed, HSG C
4.362	78	Existing meadow, non-grazed, HSG D
12.444	70	Existing Woods, Good, HSG C
20.988	77	Existing Woods, Good, HSG D
38.315	75	Weighted Average
38.315		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	73	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.0	529	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	350	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	505	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.5	623	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	355	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	337	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	437	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	330	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	345	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	45	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
63.9	3,929	Total			

Summary for Subcatchment 5: WS5

Runoff = 0.89 cfs @ 12.34 hrs, Volume= 0.114 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.012	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.009	77	Existing Woods, Good, HSG D
3.053	77	Weighted Average
3.041		99.61% Pervious Area
0.012		0.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	35	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	169	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.7	271	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
33.9	1,271	Total			

Summary for Subcatchment 6: WS6

Runoff = 6.92 cfs @ 12.42 hrs, Volume= 1.004 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.537	71	Existing meadow, non-grazed, HSG C
3.855	70	Existing Woods, Good, HSG C
0.287	98	Existing impervious, HSG D
3.372	78	Existing meadow, non-grazed, HSG D
21.062	77	Existing Woods, Good, HSG D
29.113	76	Weighted Average
28.826		99.01% Pervious Area
0.287		0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	10	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	145	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.7	333	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.8	441	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	290	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	290	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	681	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	418	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	729	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	465	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	466	0.0600	8.01	80.15	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	85	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
38.7	4,403	Total			

Summary for Subcatchment 7: WS7

Runoff = 5.26 cfs @ 12.57 hrs, Volume= 0.915 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.688	71	Existing meadow, non-grazed, HSG C
5.100	70	Existing Woods, Good, HSG C
0.250	98	Existing impervious, HSG D
3.025	78	Existing meadow, non-grazed, HSG D
17.484	77	Existing Woods, Good, HSG D
26.547	76	Weighted Average
26.297		99.06% Pervious Area
0.250		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	64	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.0	312	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	360	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
12.6	565	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.0	406	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.9	185	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	324	0.3000	17.92	179.21	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	279	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	330	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	224	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	139	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	287	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	361	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	417	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	253	0.0500	7.32	73.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,**

Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00'
n= 0.022 Earth, clean & straight

49.7	4,636	Total

Summary for Subcatchment 8: WS8

Runoff = 0.40 cfs @ 11.92 hrs, Volume= 0.017 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.066	98	Existing impervious, HSG D
0.047	78	Existing meadow, non-grazed, HSG D
0.230	77	Existing Woods, Good, HSG D
0.343	81	Weighted Average
0.277		80.76% Pervious Area
0.066		19.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	40	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
1.4	327	Total			

Summary for Subcatchment 9: WS9

Runoff = 1.41 cfs @ 12.60 hrs, Volume= 0.258 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.078	71	Existing meadow, non-grazed, HSG C
2.614	70	Existing Woods, Good, HSG C
0.184	98	Existing impervious, HSG D
0.343	78	Existing meadow, non-grazed, HSG D
4.898	77	Existing Woods, Good, HSG D
8.117	75	Weighted Average
7.933		97.73% Pervious Area
0.184		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	27	0.0500	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.4	283	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	583	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.0	403	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	554	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	172	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	350	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	411	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
50.5	2,783	Total			

Summary for Subcatchment 10: WS10

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.027	98	Existing impervious, HSG D
0.044	78	Existing meadow, non-grazed, HSG D
0.687	77	Existing Woods, Good, HSG D
0.758	78	Weighted Average
0.731		96.44% Pervious Area
0.027		3.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	70	0.3100	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	65	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	187	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
14.8	424	Total			

Summary for Subcatchment 11: WS11

Runoff = 2.08 cfs @ 13.02 hrs, Volume= 0.534 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.245	98	Existing impervious, HSG D
1.349	71	Existing meadow, non-grazed, HSG C
2.297	78	Existing meadow, non-grazed, HSG D
4.751	70	Existing Woods, Good, HSG C
8.173	77	Existing Woods, Good, HSG D
16.815	75	Weighted Average
16.570		98.54% Pervious Area
0.245		1.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	65	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	366	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.1	527	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	398	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
17.0	763	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	211	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	377	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.2	506	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	368	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	220	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	401	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	200	0.0900	22.31	223.09	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
80.4	4,402	Total			

Summary for Subcatchment 12: WS12

Runoff = 2.22 cfs @ 12.37 hrs, Volume= 0.310 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.280	71	Existing meadow, non-grazed, HSG C
3.976	70	Existing Woods, Good, HSG C
0.220	98	Existing impervious, HSG D
1.035	78	Existing meadow, non-grazed, HSG D
4.244	77	Existing Woods, Good, HSG D
9.755	75	Weighted Average
9.535		97.74% Pervious Area
0.220		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.4	320	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.0	562	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	281	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	261	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	284	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	261	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
34.7	2,300	Total			

Summary for Subcatchment 13: WS13

Runoff = 1.86 cfs @ 13.38 hrs, Volume= 0.595 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
4.203	71	Existing meadow, non-grazed, HSG C
9.072	70	Existing Woods, Good, HSG C
0.235	98	Existing impervious, HSG D
1.694	78	Existing meadow, non-grazed, HSG D
7.081	77	Existing Woods, Good, HSG D
22.285	73	Weighted Average
22.050		98.95% Pervious Area
0.235		1.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	76	0.3700	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.9	537	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	448	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	645	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	497	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	536	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.2	434	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	714	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.2	649	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.9	645	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	307	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	328	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	199	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
100.4	6,015	Total			

Summary for Subcatchment 14: WS14

Runoff = 0.85 cfs @ 12.33 hrs, Volume= 0.114 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.691	71	Existing meadow, non-grazed, HSG C
0.959	70	Existing Woods, Good, HSG C
0.182	98	Existing impervious, HSG D
0.231	78	Existing meadow, non-grazed, HSG D
1.524	77	Existing Woods, Good, HSG D
3.587	75	Weighted Average
3.405		94.93% Pervious Area
0.182		5.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	45	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.1	8	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	350	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	313	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	294	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	168	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	163	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	60	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
32.5	1,401	Total			

Summary for Subcatchment 15: WS15

Runoff = 3.31 cfs @ 13.22 hrs, Volume= 0.997 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
8.870	71	Existing meadow, non-grazed, HSG C
16.898	70	Existing Woods, Good, HSG C
0.067	98	Existing impervious, HSG D
2.332	78	Existing meadow, non-grazed, HSG D
9.172	77	Existing Woods, Good, HSG D
37.339	73	Weighted Average
37.272		99.82% Pervious Area
0.067		0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	72	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.8	586	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.9	673	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.6	625	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	664	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	484	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.7	700	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.6	529	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.6	717	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	573	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	386	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
92.0	6,278	Total			

Summary for Subcatchment 16: WS16

Runoff = 0.34 cfs @ 12.05 hrs, Volume= 0.021 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.078	98	Existing impervious, HSG D
0.048	78	Existing meadow, non-grazed, HSG D
0.290	77	Existing Woods, Good, HSG D
0.416	81	Weighted Average
0.338		81.25% Pervious Area
0.078		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	63	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	153	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
11.9	267	Total			

Summary for Subcatchment 17: WS17

Runoff = 1.23 cfs @ 12.42 hrs, Volume= 0.197 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.194	98	Existing impervious, HSG D
1.145	71	Existing meadow, non-grazed, HSG C
0.402	78	Existing meadow, non-grazed, HSG D
3.907	70	Existing Woods, Good, HSG C
1.738	77	Existing Woods, Good, HSG D
7.386	73	Weighted Average
7.192		97.37% Pervious Area
0.194		2.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	44	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
9.8	531	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	236	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	372	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	437	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	142	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	238	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
37.1	2,290	Total			

Summary for Subcatchment 18: WS18

Runoff = 0.29 cfs @ 12.26 hrs, Volume= 0.039 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.172	71	Existing meadow, non-grazed, HSG C
1.110	70	Existing Woods, Good, HSG C
0.021	98	Existing impervious, HSG D
0.028	78	Existing meadow, non-grazed, HSG D
0.268	77	Existing Woods, Good, HSG D
1.599	72	Weighted Average
1.578		98.69% Pervious Area
0.021		1.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	57	0.2100	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	68	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	218	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	281	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	258	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	96	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
26.1	978	Total			

Summary for Subcatchment 19: WS19

Runoff = 0.97 cfs @ 12.59 hrs, Volume= 0.194 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.008	98	Existing impervious, HSG D
0.954	71	Existing meadow, non-grazed, HSG C
0.384	78	Existing meadow, non-grazed, HSG D
4.939	70	Existing Woods, Good, HSG C
1.690	77	Existing Woods, Good, HSG D
7.975	72	Weighted Average
7.967		99.90% Pervious Area
0.008		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.3	262	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	422	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	501	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	213	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	258	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.7	465	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.0	2,264	Total			

Summary for Subcatchment 20: WS20

Runoff = 5.73 cfs @ 12.67 hrs, Volume= 1.166 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
1.023	98	Existing impervious, HSG C
0.436	98	Existing impervious, HSG D
6.987	71	Existing meadow, non-grazed, HSG C
6.713	78	Existing meadow, non-grazed, HSG D
16.006	70	Existing Woods, Good, HSG C
8.839	77	Existing Woods, Good, HSG D
40.004	74	Weighted Average
38.545		96.35% Pervious Area
1.459		3.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.9	242	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	278	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	258	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	134	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	77	0.2600	3.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	165	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.4	177	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	237	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	232	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	544	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.4	332	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	188	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	252	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	298	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	200	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	229	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	227	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	242	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
55.5	4,364	Total			

Summary for Subcatchment 21: WS21

Runoff = 0.98 cfs @ 12.46 hrs, Volume= 0.166 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.020	98	Existing impervious, HSG D
0.181	71	Existing meadow, non-grazed, HSG C
0.412	78	Existing meadow, non-grazed, HSG D
3.099	70	Existing Woods, Good, HSG C
2.516	77	Existing Woods, Good, HSG D
6.228	73	Weighted Average
6.208		99.68% Pervious Area
0.020		0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	356	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	262	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	364	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	189	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	194	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	69	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
39.9	1,797	Total			

Summary for Subcatchment 22: WS22

Runoff = 1.73 cfs @ 12.54 hrs, Volume= 0.281 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.074	98	Existing impervious, HSG D
0.307	71	Existing meadow, non-grazed, HSG C
2.930	78	Existing meadow, non-grazed, HSG D
0.876	70	Existing Woods, Good, HSG C
3.329	77	Existing Woods, Good, HSG D
7.516	77	Weighted Average
7.442		99.02% Pervious Area
0.074		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	290	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	266	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	395	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	315	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.4	382	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	377	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	44	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.3	2,111	Total			

Summary for Subcatchment 23: WS23

Runoff = 0.79 cfs @ 12.27 hrs, Volume= 0.091 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.039	98	Existing impervious, HSG D
0.363	71	Existing meadow, non-grazed, HSG C
0.449	78	Existing meadow, non-grazed, HSG D
0.148	70	Existing Woods, Good, HSG C
1.643	77	Existing Woods, Good, HSG D
2.642	76	Weighted Average
2.603		98.52% Pervious Area
0.039		1.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.5	212	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	247	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	267	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.0	280	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	66	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
28.3	1,122	Total			

Summary for Subcatchment 24: WS24

Runoff = 2.47 cfs @ 12.57 hrs, Volume= 0.410 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.457	98	Existing impervious, HSG D
0.399	71	Existing meadow, non-grazed, HSG C
3.359	78	Existing meadow, non-grazed, HSG D
0.012	70	Existing Woods, Good, HSG C
5.942	77	Existing Woods, Good, HSG D
10.169	78	Weighted Average
9.712		95.51% Pervious Area
0.457		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
11.8	613	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	420	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	139	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	108	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	227	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	240	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	201	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	225	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	242	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.0	19	0.2100	12.09	36.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
51.1	2,477	Total			

Summary for Reach 40R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 5.45 cfs @ 13.06 hrs, Volume= 1.216 af
Outflow = 5.43 cfs @ 13.16 hrs, Volume= 1.216 af, Atten= 0%, Lag= 6.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.54 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 1.33 fps, Avg. Travel Time= 9.6 min

Peak Storage= 1,180 cf @ 13.10 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 6.49'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 5.59 cfs @ 12.80 hrs, Volume= 1.216 af
Outflow = 5.45 cfs @ 13.06 hrs, Volume= 1.216 af, Atten= 3%, Lag= 16.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.38 fps, Min. Travel Time= 9.3 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 26.5 min

Peak Storage= 3,039 cf @ 12.91 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 5.48'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 102R: stream

Inflow Area = 315.675 ac, 4.58% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 47.96 cfs @ 12.68 hrs, Volume= 10.306 af
Outflow = 47.80 cfs @ 12.75 hrs, Volume= 10.306 af, Atten= 0%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.27 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 7.7 min

Peak Storage= 8,074 cf @ 12.71 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 13.43'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 13.21 cfs @ 12.72 hrs, Volume= 2.719 af
Outflow = 13.18 cfs @ 12.75 hrs, Volume= 2.719 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.17 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.66 fps, Avg. Travel Time= 2.8 min

Peak Storage= 871 cf @ 12.73 hrs
Average Depth at Peak Storage= 0.38' , Surface Width= 8.76'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 159.128 ac, 6.53% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 24.50 cfs @ 12.68 hrs, Volume= 5.080 af
Outflow = 24.43 cfs @ 12.72 hrs, Volume= 5.080 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.63 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 2.17 fps, Avg. Travel Time= 3.8 min

Peak Storage= 2,152 cf @ 12.70 hrs
Average Depth at Peak Storage= 0.51' , Surface Width= 9.02'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 13.50 cfs @ 12.51 hrs, Volume= 2.719 af
Outflow = 13.21 cfs @ 12.72 hrs, Volume= 2.719 af, Atten= 2%, Lag= 12.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.02 fps, Min. Travel Time= 6.5 min
Avg. Velocity = 1.95 fps, Avg. Travel Time= 16.8 min

Peak Storage= 5,187 cf @ 12.61 hrs
Average Depth at Peak Storage= 0.32' , Surface Width= 8.63'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 151.593 ac, 4.78% Impervious, Inflow Depth = 0.36" for 1-Year event
Inflow = 23.73 cfs @ 12.61 hrs, Volume= 4.547 af
Outflow = 23.62 cfs @ 12.69 hrs, Volume= 4.547 af, Atten= 0%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.80 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 2.75 fps, Avg. Travel Time= 7.1 min

Peak Storage= 4,080 cf @ 12.64 hrs
Average Depth at Peak Storage= 0.53' , Surface Width= 7.06'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 40.294 ac, 0.90% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 6.35 cfs @ 12.58 hrs, Volume= 1.175 af
Outflow = 6.32 cfs @ 12.64 hrs, Volume= 1.175 af, Atten= 0%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.52 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 2.41 fps, Avg. Travel Time= 4.7 min

Peak Storage= 787 cf @ 12.60 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 3.69'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 72.195 ac, 1.07% Impervious, Inflow Depth = 0.34" for 1-Year event
Inflow = 10.29 cfs @ 12.66 hrs, Volume= 2.026 af
Outflow = 10.21 cfs @ 12.76 hrs, Volume= 2.026 af, Atten= 1%, Lag= 6.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.65 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 2.35 fps, Avg. Travel Time= 8.7 min

Peak Storage= 2,225 cf @ 12.70 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 5.68'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Link SP1:

Inflow Area = 322.567 ac, 4.49% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 48.51 cfs @ 12.75 hrs, Volume= 10.564 af
Primary = 48.51 cfs @ 12.75 hrs, Volume= 10.564 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Inflow Area = 0.758 ac, 3.56% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af
Primary = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 16.815 ac, 1.46% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 2.08 cfs @ 13.02 hrs, Volume= 0.534 af
Primary = 2.08 cfs @ 13.02 hrs, Volume= 0.534 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 9.755 ac, 2.26% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 2.22 cfs @ 12.37 hrs, Volume= 0.310 af
Primary = 2.22 cfs @ 12.37 hrs, Volume= 0.310 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 22.285 ac, 1.05% Impervious, Inflow Depth = 0.32" for 1-Year event
Inflow = 1.86 cfs @ 13.38 hrs, Volume= 0.595 af
Primary = 1.86 cfs @ 13.38 hrs, Volume= 0.595 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP14:

Inflow Area = 3.587 ac, 5.07% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 0.85 cfs @ 12.33 hrs, Volume= 0.114 af
Primary = 0.85 cfs @ 12.33 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 37.339 ac, 0.18% Impervious, Inflow Depth = 0.32" for 1-Year event
Inflow = 3.31 cfs @ 13.22 hrs, Volume= 0.997 af
Primary = 3.31 cfs @ 13.22 hrs, Volume= 0.997 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 0.416 ac, 18.75% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 0.34 cfs @ 12.05 hrs, Volume= 0.021 af
Primary = 0.34 cfs @ 12.05 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 7.386 ac, 2.63% Impervious, Inflow Depth = 0.32" for 1-Year event
Inflow = 1.23 cfs @ 12.42 hrs, Volume= 0.197 af
Primary = 1.23 cfs @ 12.42 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 1.599 ac, 1.31% Impervious, Inflow Depth = 0.29" for 1-Year event
Inflow = 0.29 cfs @ 12.26 hrs, Volume= 0.039 af
Primary = 0.29 cfs @ 12.26 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 7.975 ac, 0.10% Impervious, Inflow Depth = 0.29" for 1-Year event
Inflow = 0.97 cfs @ 12.59 hrs, Volume= 0.194 af
Primary = 0.97 cfs @ 12.59 hrs, Volume= 0.194 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 4.825 ac, 1.45% Impervious, Inflow Depth = 0.45" for 1-Year event
Inflow = 1.17 cfs @ 12.48 hrs, Volume= 0.180 af
Primary = 1.17 cfs @ 12.48 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 40.004 ac, 3.65% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 5.73 cfs @ 12.67 hrs, Volume= 1.166 af
Primary = 5.73 cfs @ 12.67 hrs, Volume= 1.166 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 6.228 ac, 0.32% Impervious, Inflow Depth = 0.32" for 1-Year event
Inflow = 0.98 cfs @ 12.46 hrs, Volume= 0.166 af
Primary = 0.98 cfs @ 12.46 hrs, Volume= 0.166 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 7.516 ac, 0.98% Impervious, Inflow Depth = 0.45" for 1-Year event
Inflow = 1.73 cfs @ 12.54 hrs, Volume= 0.281 af
Primary = 1.73 cfs @ 12.54 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 2.642 ac, 1.48% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 0.79 cfs @ 12.27 hrs, Volume= 0.091 af
Primary = 0.79 cfs @ 12.27 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 10.169 ac, 4.49% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 2.47 cfs @ 12.57 hrs, Volume= 0.410 af
Primary = 2.47 cfs @ 12.57 hrs, Volume= 0.410 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 1.513 ac, 4.49% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.75 cfs @ 12.13 hrs, Volume= 0.061 af
Primary = 0.75 cfs @ 12.13 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 58.640 ac, 0.49% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 8.21 cfs @ 12.13 hrs, Volume= 1.917 af
Primary = 8.21 cfs @ 12.13 hrs, Volume= 1.917 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 3.053 ac, 0.39% Impervious, Inflow Depth = 0.45" for 1-Year event
Inflow = 0.89 cfs @ 12.34 hrs, Volume= 0.114 af
Primary = 0.89 cfs @ 12.34 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 29.113 ac, 0.99% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 6.92 cfs @ 12.42 hrs, Volume= 1.004 af
Primary = 6.92 cfs @ 12.42 hrs, Volume= 1.004 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 26.547 ac, 0.94% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 5.26 cfs @ 12.57 hrs, Volume= 0.915 af
Primary = 5.26 cfs @ 12.57 hrs, Volume= 0.915 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.343 ac, 19.24% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 0.40 cfs @ 11.92 hrs, Volume= 0.017 af
Primary = 0.40 cfs @ 11.92 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 8.117 ac, 2.27% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 1.41 cfs @ 12.60 hrs, Volume= 0.258 af
Primary = 1.41 cfs @ 12.60 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS1 Runoff Area=3.816 ac 0.50% Impervious Runoff Depth=0.68"
Flow Length=1,200' Tc=20.2 min CN=77 Runoff=2.62 cfs 0.216 af

Subcatchment1A: WS1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=821' Tc=28.5 min CN=77 Runoff=1.68 cfs 0.174 af

Subcatchment1B: WS1B Runoff Area=8.471 ac 5.02% Impervious Runoff Depth=0.72"
Flow Length=2,480' Tc=14.1 min CN=78 Runoff=7.71 cfs 0.511 af

Subcatchment1C: WS1C Runoff Area=17.349 ac 18.91% Impervious Runoff Depth=0.87"
Flow Length=3,667' Tc=47.4 min CN=81 Runoff=9.04 cfs 1.260 af

Subcatchment1CA: WS 1CA Runoff Area=7.535 ac 41.66% Impervious Runoff Depth=1.16"
Flow Length=949' Tc=10.1 min CN=86 Runoff=13.22 cfs 0.730 af

Subcatchment1D: WS1D Runoff Area=79.398 ac 8.16% Impervious Runoff Depth=0.59"
Flow Length=6,450' Tc=43.6 min CN=75 Runoff=26.72 cfs 3.923 af

Subcatchment1E: WS1E Runoff Area=31.901 ac 1.29% Impervious Runoff Depth=0.51"
Flow Length=4,125' Tc=55.4 min CN=73 Runoff=7.37 cfs 1.367 af

Subcatchment1F: WS1F Runoff Area=40.294 ac 0.90% Impervious Runoff Depth=0.55"
Flow Length=4,191' Tc=48.6 min CN=74 Runoff=11.36 cfs 1.856 af

Subcatchment1G: WS 1G Runoff Area=33.788 ac 0.01% Impervious Runoff Depth=0.55"
Flow Length=4,645' Tc=34.6 min CN=74 Runoff=12.21 cfs 1.557 af

Subcatchment1H: WS 1H Runoff Area=59.491 ac 0.00% Impervious Runoff Depth=0.55"
Flow Length=4,804' Tc=55.9 min CN=74 Runoff=15.09 cfs 2.741 af

Subcatchment1I: WS1I Runoff Area=15.102 ac 0.81% Impervious Runoff Depth=0.63"
Flow Length=3,069' Tc=31.2 min CN=76 Runoff=7.10 cfs 0.799 af

Subcatchment1J: WS1J Runoff Area=22.346 ac 1.03% Impervious Runoff Depth=0.63"
Flow Length=3,101' Tc=25.4 min CN=76 Runoff=12.11 cfs 1.182 af

Subcatchment2: WS2 Runoff Area=4.825 ac 1.45% Impervious Runoff Depth=0.68"
Flow Length=1,847' Tc=44.0 min CN=77 Runoff=1.93 cfs 0.273 af

Subcatchment3: WS3 Runoff Area=1.513 ac 4.49% Impervious Runoff Depth=0.72"
Flow Length=681' Tc=18.2 min CN=78 Runoff=1.20 cfs 0.091 af

Subcatchment4: WS4 Runoff Area=20.325 ac 1.41% Impervious Runoff Depth=0.63"
Flow Length=3,739' Tc=18.0 min CN=76 Runoff=13.77 cfs 1.075 af

Subcatchment4A: WS4A Runoff Area=38.315 ac 0.00% Impervious Runoff Depth=0.59"
Flow Length=3,929' Tc=63.9 min CN=75 Runoff=9.70 cfs 1.893 af

Subcatchment5: WS5 Runoff Area=3.053 ac 0.39% Impervious Runoff Depth=0.68"
Flow Length=1,271' Tc=33.9 min CN=77 Runoff=1.48 cfs 0.173 af

Subcatchment6: WS6 Runoff Area=29.113 ac 0.99% Impervious Runoff Depth=0.63"
Flow Length=4,403' Tc=38.7 min CN=76 Runoff=11.72 cfs 1.540 af

Subcatchment7: WS7 Runoff Area=26.547 ac 0.94% Impervious Runoff Depth=0.63"
Flow Length=4,636' Tc=49.7 min CN=76 Runoff=8.91 cfs 1.404 af

Subcatchment8: WS8 Runoff Area=0.343 ac 19.24% Impervious Runoff Depth=0.87"
Flow Length=327' Tc=1.4 min CN=81 Runoff=0.58 cfs 0.025 af

Subcatchment9: WS9 Runoff Area=8.117 ac 2.27% Impervious Runoff Depth=0.59"
Flow Length=2,783' Tc=50.5 min CN=75 Runoff=2.45 cfs 0.401 af

Subcatchment10: WS10 Runoff Area=0.758 ac 3.56% Impervious Runoff Depth=0.72"
Flow Length=424' Tc=14.8 min CN=78 Runoff=0.67 cfs 0.046 af

Subcatchment11: WS11 Runoff Area=16.815 ac 1.46% Impervious Runoff Depth=0.59"
Flow Length=4,402' Tc=80.4 min CN=75 Runoff=3.60 cfs 0.831 af

Subcatchment12: WS12 Runoff Area=9.755 ac 2.26% Impervious Runoff Depth=0.59"
Flow Length=2,300' Tc=34.7 min CN=75 Runoff=3.87 cfs 0.482 af

Subcatchment13: WS13 Runoff Area=22.285 ac 1.05% Impervious Runoff Depth=0.51"
Flow Length=6,015' Tc=100.4 min CN=73 Runoff=3.35 cfs 0.955 af

Subcatchment14: WS14 Runoff Area=3.587 ac 5.07% Impervious Runoff Depth=0.59"
Flow Length=1,401' Tc=32.5 min CN=75 Runoff=1.49 cfs 0.177 af

Subcatchment15: WS15 Runoff Area=37.339 ac 0.18% Impervious Runoff Depth=0.51"
Flow Length=6,278' Tc=92.0 min CN=73 Runoff=5.99 cfs 1.601 af

Subcatchment16: WS16 Runoff Area=0.416 ac 18.75% Impervious Runoff Depth=0.87"
Flow Length=267' Tc=11.9 min CN=81 Runoff=0.51 cfs 0.030 af

Subcatchment17: WS17 Runoff Area=7.386 ac 2.63% Impervious Runoff Depth=0.51"
Flow Length=2,290' Tc=37.1 min CN=73 Runoff=2.29 cfs 0.317 af

Subcatchment18: WS18 Runoff Area=1.599 ac 1.31% Impervious Runoff Depth=0.48"
Flow Length=978' Tc=26.1 min CN=72 Runoff=0.57 cfs 0.064 af

Subcatchment19: WS19 Runoff Area=7.975 ac 0.10% Impervious Runoff Depth=0.48"
Flow Length=2,264' Tc=47.0 min CN=72 Runoff=1.86 cfs 0.317 af

Subcatchment20: WS20 Runoff Area=40.004 ac 3.65% Impervious Runoff Depth=0.55"
Flow Length=4,364' Tc=55.5 min CN=74 Runoff=10.25 cfs 1.843 af

Subcatchment21: WS21 Runoff Area=6.228 ac 0.32% Impervious Runoff Depth=0.51"
Flow Length=1,797' Tc=39.9 min CN=73 Runoff=1.83 cfs 0.267 af

Subcatchment22: WS22 Runoff Area=7.516 ac 0.98% Impervious Runoff Depth=0.68"
Flow Length=2,111' Tc=47.3 min CN=77 Runoff=2.86 cfs 0.425 af

Subcatchment23: WS23 Runoff Area=2.642 ac 1.48% Impervious Runoff Depth=0.63"
Flow Length=1,122' Tc=28.3 min CN=76 Runoff=1.33 cfs 0.140 af

Subcatchment24: WS24 Runoff Area=10.169 ac 4.49% Impervious Runoff Depth=0.72"
Flow Length=2,477' Tc=51.1 min CN=78 Runoff=3.98 cfs 0.613 af

Reach 40R: stream Avg. Flow Depth=0.34' Max Vel=4.36 fps Inflow=9.51 cfs 1.893 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=9.49 cfs 1.893 af

Reach 42R: stream Avg. Flow Depth=0.33' Max Vel=5.37 fps Inflow=9.70 cfs 1.893 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=9.51 cfs 1.893 af

Reach 102R: stream Avg. Flow Depth=1.01' Max Vel=6.47 fps Inflow=84.89 cfs 15.927 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=84.53 cfs 15.927 af

Reach 103R: stream Avg. Flow Depth=0.54' Max Vel=5.18 fps Inflow=23.91 cfs 4.297 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=23.87 cfs 4.297 af

Reach 104R: stream Avg. Flow Depth=0.72' Max Vel=6.93 fps Inflow=43.72 cfs 7.877 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=43.60 cfs 7.877 af

Reach 108R: stream Avg. Flow Depth=0.45' Max Vel=6.26 fps Inflow=24.29 cfs 4.297 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=23.91 cfs 4.297 af

Reach 110R: stream Avg. Flow Depth=0.76' Max Vel=8.33 fps Inflow=42.71 cfs 7.147 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=42.48 cfs 7.147 af

Reach 111R: upperstream Avg. Flow Depth=0.49' Max Vel=6.71 fps Inflow=11.36 cfs 1.856 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=11.32 cfs 1.856 af

Reach 112R: stream Avg. Flow Depth=0.48' Max Vel=6.99 fps Inflow=18.65 cfs 3.224 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=18.57 cfs 3.224 af

Link SP1: Inflow=85.81 cfs 16.317 af
Primary=85.81 cfs 16.317 af

Link SP10: Inflow=0.67 cfs 0.046 af
Primary=0.67 cfs 0.046 af

Link SP11: Inflow=3.60 cfs 0.831 af
Primary=3.60 cfs 0.831 af

Link SP12: Inflow=3.87 cfs 0.482 af
Primary=3.87 cfs 0.482 af

Link SP13: Inflow=3.35 cfs 0.955 af
Primary=3.35 cfs 0.955 af

Link SP14: Inflow=1.49 cfs 0.177 af
Primary=1.49 cfs 0.177 af

Link SP15: Inflow=5.99 cfs 1.601 af
Primary=5.99 cfs 1.601 af

Link SP16: Inflow=0.51 cfs 0.030 af
Primary=0.51 cfs 0.030 af

Link SP17: Inflow=2.29 cfs 0.317 af
Primary=2.29 cfs 0.317 af

Link SP18: Inflow=0.57 cfs 0.064 af
Primary=0.57 cfs 0.064 af

Link SP19: Inflow=1.86 cfs 0.317 af
Primary=1.86 cfs 0.317 af

Link SP2: Inflow=1.93 cfs 0.273 af
Primary=1.93 cfs 0.273 af

Link SP20: Inflow=10.25 cfs 1.843 af
Primary=10.25 cfs 1.843 af

Link SP21: Inflow=1.83 cfs 0.267 af
Primary=1.83 cfs 0.267 af

Link SP22: Inflow=2.86 cfs 0.425 af
Primary=2.86 cfs 0.425 af

Link SP23: Inflow=1.33 cfs 0.140 af
Primary=1.33 cfs 0.140 af

Link SP24: Inflow=3.98 cfs 0.613 af
Primary=3.98 cfs 0.613 af

Link SP3: Inflow=1.20 cfs 0.091 af
Primary=1.20 cfs 0.091 af

Link SP4: Inflow=13.77 cfs 2.969 af
Primary=13.77 cfs 2.969 af

Link SP5: Inflow=1.48 cfs 0.173 af
Primary=1.48 cfs 0.173 af

Link SP6: Inflow=11.72 cfs 1.540 af
Primary=11.72 cfs 1.540 af

Link SP7: Inflow=8.91 cfs 1.404 af
Primary=8.91 cfs 1.404 af

Link SP8: Inflow=0.58 cfs 0.025 af
Primary=0.58 cfs 0.025 af

Link SP9: Inflow=2.45 cfs 0.401 af
Primary=2.45 cfs 0.401 af

Total Runoff Area = 629.192 ac Runoff Volume = 31.300 af Average Runoff Depth = 0.60"
96.98% Pervious = 610.171 ac 3.02% Impervious = 19.021 ac

Summary for Subcatchment 1: WS1

Runoff = 2.62 cfs @ 12.15 hrs, Volume= 0.216 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.019	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.765	77	Existing Woods, Good, HSG D
3.816	77	Weighted Average
3.797		99.50% Pervious Area
0.019		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.0	358	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	299	0.0600	9.68	232.28	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
20.2	1,200	Total			

Summary for Subcatchment 1A: WS1A

Runoff = 1.68 cfs @ 12.25 hrs, Volume= 0.174 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.011	78	Existing meadow, non-grazed, HSG D
3.065	77	Existing Woods, Good, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
28.5	821	Total			

Summary for Subcatchment 1B: WS1B

Runoff = 7.71 cfs @ 12.07 hrs, Volume= 0.511 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.425	98	Existing impervious, HSG D
0.427	78	Existing meadow, non-grazed, HSG D
7.619	77	Existing Woods, Good, HSG D
8.471	78	Weighted Average
8.046		94.98% Pervious Area
0.425		5.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.4	336	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	339	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	336	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	278	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	283	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	118	0.0800	13.91	41.73	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	164	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	83	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
14.1	2,480	Total			

Summary for Subcatchment 1C: WS1C

Runoff = 9.04 cfs @ 12.49 hrs, Volume= 1.260 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
3.281	98	Existing impervious, HSG D
3.704	78	Existing meadow, non-grazed, HSG D
10.364	77	Existing Woods, Good, HSG D
17.349	81	Weighted Average
14.068		81.09% Pervious Area
3.281		18.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	172	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	164	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.9	77	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	157	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.5	350	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	219	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	251	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	316	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	73	0.1900	21.44	64.31	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	300	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	179	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
10.2	342	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	236	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	199	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	224	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	360	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
47.4	3,667	Total			

Summary for Subcatchment 1CA: WS 1CA

Runoff = 13.22 cfs @ 12.02 hrs, Volume= 0.730 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
3.139	98	Existing impervious, HSG D
0.835	78	Existing meadow, non-grazed, HSG D
3.561	77	Existing Woods, Good, HSG D
7.535	86	Weighted Average
4.396		58.34% Pervious Area
3.139		41.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
3.0	89	0.0400	0.50		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	161	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	391	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
3.6	208	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.1	949	Total			

Summary for Subcatchment 1D: WS1D

Runoff = 26.72 cfs @ 12.47 hrs, Volume= 3.923 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
4.794	98	Existing impervious, HSG C
1.682	98	Existing impervious, HSG D
15.372	71	Existing meadow, non-grazed, HSG C
10.464	78	Existing meadow, non-grazed, HSG D
27.478	70	Existing Woods, Good, HSG C
19.608	77	Existing Woods, Good, HSG D
79.398	75	Weighted Average
72.922		91.84% Pervious Area
6.476		8.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.2300	0.27		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.9	388	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	312	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.8	440	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	123	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.6	266	0.1300	7.32		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.2	457	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	378	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	258	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	263	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
4.2	242	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	150	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	256	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	314	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	390	0.0500	8.83	212.04	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00'

n= 0.050 Mountain streams w/large boulders

43.6 6,450 Total

Summary for Subcatchment 1E: WS1E

Runoff = 7.37 cfs @ 12.65 hrs, Volume= 1.367 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.328	98	Existing impervious, HSG C
0.082	98	Existing impervious, HSG D
3.846	71	Existing meadow, non-grazed, HSG C
4.272	78	Existing meadow, non-grazed, HSG D
17.223	70	Existing Woods, Good, HSG C
6.150	77	Existing Woods, Good, HSG D
31.901	73	Weighted Average
31.491		98.71% Pervious Area
0.410		1.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	113	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	154	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	191	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	146	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	137	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	204	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	134	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	286	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	261	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	341	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	423	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.9	196	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	223	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.2	189	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
55.4	4,125	Total			

Summary for Subcatchment 1F: WS1F

Runoff = 11.36 cfs @ 12.55 hrs, Volume= 1.856 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.002	98	Existing impervious, HSG C
0.362	98	Existing impervious, HSG D
4.817	71	Existing meadow, non-grazed, HSG C
9.293	78	Existing meadow, non-grazed, HSG D
15.585	70	Existing Woods, Good, HSG C
10.235	77	Existing Woods, Good, HSG D
40.294	74	Weighted Average
39.930		99.10% Pervious Area
0.364		0.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	144	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
48.6	4,191	Total			

Summary for Subcatchment 1G: WS 1G

Runoff = 12.21 cfs @ 12.35 hrs, Volume= 1.557 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.906	71	Existing meadow, non-grazed, HSG C
12.918	70	Existing Woods, Good, HSG C
0.004	98	Existing impervious, HSG D
3.805	78	Existing meadow, non-grazed, HSG D
16.155	77	Existing Woods, Good, HSG D
33.788	74	Weighted Average
33.784		99.99% Pervious Area
0.004		0.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.1200	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.3	182	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	443	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	118	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	458	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	564	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	366	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	162	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	449	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	450	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	408	0.2100	14.99	149.94	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.7	554	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	391	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
34.6	4,645	Total			

Summary for Subcatchment 1H: WS 1H

Runoff = 15.09 cfs @ 12.65 hrs, Volume= 2.741 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
2.007	71	Existing meadow, non-grazed, HSG C
22.781	70	Existing Woods, Good, HSG C
4.416	78	Existing meadow, non-grazed, HSG D
30.287	77	Existing Woods, Good, HSG D
59.491	74	Weighted Average
59.491		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	59	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.5	105	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	330	0.3600	4.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	212	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	108	0.2400	3.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	346	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	190	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	320	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	411	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	281	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	255	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	223	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	601	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	147	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	403	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	348	0.1600	14.26	199.63	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
0.5	465	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
55.9	4,804	Total			

Summary for Subcatchment 1I: WS1I

Runoff = 7.10 cfs @ 12.29 hrs, Volume= 0.799 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.123	98	Existing impervious, HSG D
2.494	70	Existing Woods, Good, HSG C
12.485	77	Existing Woods, Good, HSG D
15.102	76	Weighted Average
14.979		99.19% Pervious Area
0.123		0.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	293	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	337	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	279	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	199	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	431	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
31.2	3,069	Total			

Summary for Subcatchment 1J: WS1J

Runoff = 12.11 cfs @ 12.22 hrs, Volume= 1.182 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Existing impervious, HSG D
0.095	71	Existing meadow, non-grazed, HSG C
0.159	78	Existing meadow, non-grazed, HSG D
4.342	70	Existing Woods, Good, HSG C
17.520	77	Existing Woods, Good, HSG D
22.346	76	Weighted Average
22.116		98.97% Pervious Area
0.230		1.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.3	269	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	336	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	167	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	486	0.1300	15.28	641.91	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	546	0.1700	17.48	734.06	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	483	0.1200	14.68	616.73	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	426	0.1100	14.06	590.48	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.4	336	0.0900	12.72	534.11	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
25.4	3,101	Total			

Summary for Subcatchment 2: WS2

Runoff = 1.93 cfs @ 12.46 hrs, Volume= 0.273 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.070	98	Existing impervious, HSG D
0.750	78	Existing meadow, non-grazed, HSG D
4.005	77	Existing Woods, Good, HSG D
4.825	77	Weighted Average
4.755		98.55% Pervious Area
0.070		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	49	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	349	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	156	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	279	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	154	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	339	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.3	374	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	147	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
44.0	1,847	Total			

Summary for Subcatchment 3: WS3

Runoff = 1.20 cfs @ 12.12 hrs, Volume= 0.091 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.068	98	Existing impervious, HSG D
0.254	78	Existing meadow, non-grazed, HSG D
1.191	77	Existing Woods, Good, HSG D
1.513	78	Weighted Average
1.445		95.51% Pervious Area
0.068		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	60	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	97	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	169	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	319	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
18.2	681	Total			

Summary for Subcatchment 4: WS4

Runoff = 13.77 cfs @ 12.12 hrs, Volume= 1.075 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.287	98	Existing impervious, HSG D
0.739	71	Existing meadow, non-grazed, HSG C
1.095	78	Existing meadow, non-grazed, HSG D
2.883	70	Existing Woods, Good, HSG C
15.321	77	Existing Woods, Good, HSG D
20.325	76	Weighted Average
20.038		98.59% Pervious Area
0.287		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	56	0.2000	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.4	164	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	417	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	544	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	711	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	404	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	338	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	432	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	424	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	249	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
18.0	3,739	Total			

Summary for Subcatchment 4A: WS4A

Runoff = 9.70 cfs @ 12.75 hrs, Volume= 1.893 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.521	71	Existing meadow, non-grazed, HSG C
4.362	78	Existing meadow, non-grazed, HSG D
12.444	70	Existing Woods, Good, HSG C
20.988	77	Existing Woods, Good, HSG D
38.315	75	Weighted Average
38.315		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	73	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.0	529	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	350	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	505	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.5	623	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	355	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	337	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	437	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	330	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	345	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	45	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
63.9	3,929	Total			

Summary for Subcatchment 5: WS5

Runoff = 1.48 cfs @ 12.32 hrs, Volume= 0.173 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.012	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.009	77	Existing Woods, Good, HSG D
3.053	77	Weighted Average
3.041		99.61% Pervious Area
0.012		0.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	35	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	169	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.7	271	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
33.9	1,271	Total			

Summary for Subcatchment 6: WS6

Runoff = 11.72 cfs @ 12.39 hrs, Volume= 1.540 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.537	71	Existing meadow, non-grazed, HSG C
3.855	70	Existing Woods, Good, HSG C
0.287	98	Existing impervious, HSG D
3.372	78	Existing meadow, non-grazed, HSG D
21.062	77	Existing Woods, Good, HSG D
29.113	76	Weighted Average
28.826		99.01% Pervious Area
0.287		0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	10	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	145	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.7	333	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.8	441	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	290	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	290	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	681	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	418	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	729	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	465	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	466	0.0600	8.01	80.15	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	85	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
38.7	4,403	Total			

Summary for Subcatchment 7: WS7

Runoff = 8.91 cfs @ 12.55 hrs, Volume= 1.404 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.688	71	Existing meadow, non-grazed, HSG C
5.100	70	Existing Woods, Good, HSG C
0.250	98	Existing impervious, HSG D
3.025	78	Existing meadow, non-grazed, HSG D
17.484	77	Existing Woods, Good, HSG D
26.547	76	Weighted Average
26.297		99.06% Pervious Area
0.250		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	64	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.0	312	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	360	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
12.6	565	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.0	406	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.9	185	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	324	0.3000	17.92	179.21	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	279	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	330	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	224	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	139	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	287	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	361	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	417	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	253	0.0500	7.32	73.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,**

Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00'
n= 0.022 Earth, clean & straight

49.7	4,636	Total

Summary for Subcatchment 8: WS8

Runoff = 0.58 cfs @ 11.91 hrs, Volume= 0.025 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.066	98	Existing impervious, HSG D
0.047	78	Existing meadow, non-grazed, HSG D
0.230	77	Existing Woods, Good, HSG D
0.343	81	Weighted Average
0.277		80.76% Pervious Area
0.066		19.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	40	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
1.4	327	Total			

Summary for Subcatchment 9: WS9

Runoff = 2.45 cfs @ 12.57 hrs, Volume= 0.401 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.078	71	Existing meadow, non-grazed, HSG C
2.614	70	Existing Woods, Good, HSG C
0.184	98	Existing impervious, HSG D
0.343	78	Existing meadow, non-grazed, HSG D
4.898	77	Existing Woods, Good, HSG D
8.117	75	Weighted Average
7.933		97.73% Pervious Area
0.184		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	27	0.0500	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.4	283	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	583	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.0	403	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	554	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	172	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	350	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	411	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
50.5	2,783	Total			

Summary for Subcatchment 10: WS10

Runoff = 0.67 cfs @ 12.08 hrs, Volume= 0.046 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.027	98	Existing impervious, HSG D
0.044	78	Existing meadow, non-grazed, HSG D
0.687	77	Existing Woods, Good, HSG D
0.758	78	Weighted Average
0.731		96.44% Pervious Area
0.027		3.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	70	0.3100	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	65	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	187	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
14.8	424	Total			

Summary for Subcatchment 11: WS11

Runoff = 3.60 cfs @ 12.97 hrs, Volume= 0.831 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.245	98	Existing impervious, HSG D
1.349	71	Existing meadow, non-grazed, HSG C
2.297	78	Existing meadow, non-grazed, HSG D
4.751	70	Existing Woods, Good, HSG C
8.173	77	Existing Woods, Good, HSG D
16.815	75	Weighted Average
16.570		98.54% Pervious Area
0.245		1.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	65	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	366	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.1	527	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	398	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
17.0	763	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	211	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	377	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.2	506	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	368	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	220	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	401	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	200	0.0900	22.31	223.09	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
80.4	4,402	Total			

Summary for Subcatchment 12: WS12

Runoff = 3.87 cfs @ 12.35 hrs, Volume= 0.482 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.280	71	Existing meadow, non-grazed, HSG C
3.976	70	Existing Woods, Good, HSG C
0.220	98	Existing impervious, HSG D
1.035	78	Existing meadow, non-grazed, HSG D
4.244	77	Existing Woods, Good, HSG D
9.755	75	Weighted Average
9.535		97.74% Pervious Area
0.220		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.4	320	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.0	562	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	281	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	261	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	284	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	261	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
34.7	2,300	Total			

Summary for Subcatchment 13: WS13

Runoff = 3.35 cfs @ 13.30 hrs, Volume= 0.955 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
4.203	71	Existing meadow, non-grazed, HSG C
9.072	70	Existing Woods, Good, HSG C
0.235	98	Existing impervious, HSG D
1.694	78	Existing meadow, non-grazed, HSG D
7.081	77	Existing Woods, Good, HSG D
22.285	73	Weighted Average
22.050		98.95% Pervious Area
0.235		1.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	76	0.3700	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.9	537	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	448	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	645	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	497	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	536	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.2	434	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	714	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.2	649	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.9	645	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	307	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	328	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	199	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
100.4	6,015	Total			

Summary for Subcatchment 14: WS14

Runoff = 1.49 cfs @ 12.31 hrs, Volume= 0.177 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.691	71	Existing meadow, non-grazed, HSG C
0.959	70	Existing Woods, Good, HSG C
0.182	98	Existing impervious, HSG D
0.231	78	Existing meadow, non-grazed, HSG D
1.524	77	Existing Woods, Good, HSG D
3.587	75	Weighted Average
3.405		94.93% Pervious Area
0.182		5.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	45	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.1	8	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	350	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	313	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	294	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	168	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	163	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	60	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
32.5	1,401	Total			

Summary for Subcatchment 15: WS15

Runoff = 5.99 cfs @ 13.20 hrs, Volume= 1.601 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
8.870	71	Existing meadow, non-grazed, HSG C
16.898	70	Existing Woods, Good, HSG C
0.067	98	Existing impervious, HSG D
2.332	78	Existing meadow, non-grazed, HSG D
9.172	77	Existing Woods, Good, HSG D
37.339	73	Weighted Average
37.272		99.82% Pervious Area
0.067		0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	72	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.8	586	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.9	673	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.6	625	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	664	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	484	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.7	700	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.6	529	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.6	717	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	573	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	386	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
92.0	6,278	Total			

Summary for Subcatchment 16: WS16

Runoff = 0.51 cfs @ 12.05 hrs, Volume= 0.030 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.078	98	Existing impervious, HSG D
0.048	78	Existing meadow, non-grazed, HSG D
0.290	77	Existing Woods, Good, HSG D
0.416	81	Weighted Average
0.338		81.25% Pervious Area
0.078		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	63	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	153	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
11.9	267	Total			

Summary for Subcatchment 17: WS17

Runoff = 2.29 cfs @ 12.39 hrs, Volume= 0.317 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.194	98	Existing impervious, HSG D
1.145	71	Existing meadow, non-grazed, HSG C
0.402	78	Existing meadow, non-grazed, HSG D
3.907	70	Existing Woods, Good, HSG C
1.738	77	Existing Woods, Good, HSG D
7.386	73	Weighted Average
7.192		97.37% Pervious Area
0.194		2.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	44	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
9.8	531	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	236	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	372	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	437	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	142	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	238	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
37.1	2,290	Total			

Summary for Subcatchment 18: WS18

Runoff = 0.57 cfs @ 12.24 hrs, Volume= 0.064 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.172	71	Existing meadow, non-grazed, HSG C
1.110	70	Existing Woods, Good, HSG C
0.021	98	Existing impervious, HSG D
0.028	78	Existing meadow, non-grazed, HSG D
0.268	77	Existing Woods, Good, HSG D
1.599	72	Weighted Average
1.578		98.69% Pervious Area
0.021		1.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	57	0.2100	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	68	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	218	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	281	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	258	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	96	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
26.1	978	Total			

Summary for Subcatchment 19: WS19

Runoff = 1.86 cfs @ 12.54 hrs, Volume= 0.317 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.008	98	Existing impervious, HSG D
0.954	71	Existing meadow, non-grazed, HSG C
0.384	78	Existing meadow, non-grazed, HSG D
4.939	70	Existing Woods, Good, HSG C
1.690	77	Existing Woods, Good, HSG D
7.975	72	Weighted Average
7.967		99.90% Pervious Area
0.008		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.3	262	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	422	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	501	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	213	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	258	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.7	465	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.0	2,264	Total			

Summary for Subcatchment 20: WS20

Runoff = 10.25 cfs @ 12.65 hrs, Volume= 1.843 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
1.023	98	Existing impervious, HSG C
0.436	98	Existing impervious, HSG D
6.987	71	Existing meadow, non-grazed, HSG C
6.713	78	Existing meadow, non-grazed, HSG D
16.006	70	Existing Woods, Good, HSG C
8.839	77	Existing Woods, Good, HSG D
40.004	74	Weighted Average
38.545		96.35% Pervious Area
1.459		3.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.9	242	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	278	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	258	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	134	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	77	0.2600	3.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	165	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.4	177	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	237	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	232	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	544	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.4	332	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	188	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	252	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	298	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	200	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	229	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	227	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	242	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
55.5	4,364	Total			

Summary for Subcatchment 21: WS21

Runoff = 1.83 cfs @ 12.43 hrs, Volume= 0.267 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.020	98	Existing impervious, HSG D
0.181	71	Existing meadow, non-grazed, HSG C
0.412	78	Existing meadow, non-grazed, HSG D
3.099	70	Existing Woods, Good, HSG C
2.516	77	Existing Woods, Good, HSG D
6.228	73	Weighted Average
6.208		99.68% Pervious Area
0.020		0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	356	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	262	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	364	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	189	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	194	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	69	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
39.9	1,797	Total			

Summary for Subcatchment 22: WS22

Runoff = 2.86 cfs @ 12.51 hrs, Volume= 0.425 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.074	98	Existing impervious, HSG D
0.307	71	Existing meadow, non-grazed, HSG C
2.930	78	Existing meadow, non-grazed, HSG D
0.876	70	Existing Woods, Good, HSG C
3.329	77	Existing Woods, Good, HSG D
7.516	77	Weighted Average
7.442		99.02% Pervious Area
0.074		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	290	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	266	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	395	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	315	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.4	382	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	377	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	44	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.3	2,111	Total			

Summary for Subcatchment 23: WS23

Runoff = 1.33 cfs @ 12.26 hrs, Volume= 0.140 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.039	98	Existing impervious, HSG D
0.363	71	Existing meadow, non-grazed, HSG C
0.449	78	Existing meadow, non-grazed, HSG D
0.148	70	Existing Woods, Good, HSG C
1.643	77	Existing Woods, Good, HSG D
2.642	76	Weighted Average
2.603		98.52% Pervious Area
0.039		1.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.5	212	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	247	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	267	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.0	280	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	66	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
28.3	1,122	Total			

Summary for Subcatchment 24: WS24

Runoff = 3.98 cfs @ 12.55 hrs, Volume= 0.613 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.457	98	Existing impervious, HSG D
0.399	71	Existing meadow, non-grazed, HSG C
3.359	78	Existing meadow, non-grazed, HSG D
0.012	70	Existing Woods, Good, HSG C
5.942	77	Existing Woods, Good, HSG D
10.169	78	Weighted Average
9.712		95.51% Pervious Area
0.457		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
11.8	613	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	420	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	139	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	108	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	227	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	240	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	201	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	225	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	242	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.0	19	0.2100	12.09	36.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
51.1	2,477	Total			

Summary for Reach 40R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 9.51 cfs @ 12.97 hrs, Volume= 1.893 af
Outflow = 9.49 cfs @ 13.06 hrs, Volume= 1.893 af, Atten= 0%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.36 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 8.6 min

Peak Storage= 1,677 cf @ 13.01 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 6.69'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 9.70 cfs @ 12.75 hrs, Volume= 1.893 af
Outflow = 9.51 cfs @ 12.97 hrs, Volume= 1.893 af, Atten= 2%, Lag= 13.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.37 fps, Min. Travel Time= 7.6 min
Avg. Velocity = 1.74 fps, Avg. Travel Time= 23.4 min

Peak Storage= 4,325 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.33' , Surface Width= 5.66'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 102R: stream

Inflow Area = 315.675 ac, 4.58% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 84.89 cfs @ 12.61 hrs, Volume= 15.927 af
Outflow = 84.53 cfs @ 12.68 hrs, Volume= 15.927 af, Atten= 0%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.47 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 2.14 fps, Avg. Travel Time= 6.9 min

Peak Storage= 11,640 cf @ 12.64 hrs
Average Depth at Peak Storage= 1.01' , Surface Width= 14.01'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 23.91 cfs @ 12.64 hrs, Volume= 4.297 af
Outflow = 23.87 cfs @ 12.67 hrs, Volume= 4.297 af, Atten= 0%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.18 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.88 fps, Avg. Travel Time= 2.4 min

Peak Storage= 1,269 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.54' , Surface Width= 9.08'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 159.128 ac, 6.53% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 43.72 cfs @ 12.63 hrs, Volume= 7.877 af
Outflow = 43.60 cfs @ 12.66 hrs, Volume= 7.877 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.93 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 2.40 fps, Avg. Travel Time= 3.4 min

Peak Storage= 3,123 cf @ 12.64 hrs
Average Depth at Peak Storage= 0.72' , Surface Width= 9.45'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 24.29 cfs @ 12.49 hrs, Volume= 4.297 af
Outflow = 23.91 cfs @ 12.64 hrs, Volume= 4.297 af, Atten= 2%, Lag= 9.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.26 fps, Min. Travel Time= 5.2 min
Avg. Velocity = 2.22 fps, Avg. Travel Time= 14.8 min

Peak Storage= 7,534 cf @ 12.55 hrs
Average Depth at Peak Storage= 0.45' , Surface Width= 8.91'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 151.593 ac, 4.78% Impervious, Inflow Depth = 0.57" for 2-Year event
Inflow = 42.71 cfs @ 12.57 hrs, Volume= 7.147 af
Outflow = 42.48 cfs @ 12.63 hrs, Volume= 7.147 af, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.33 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 6.2 min

Peak Storage= 6,000 cf @ 12.59 hrs
Average Depth at Peak Storage= 0.76' , Surface Width= 7.51'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 40.294 ac, 0.90% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 11.36 cfs @ 12.55 hrs, Volume= 1.856 af
Outflow = 11.32 cfs @ 12.60 hrs, Volume= 1.856 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.71 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 2.76 fps, Avg. Travel Time= 4.1 min

Peak Storage= 1,161 cf @ 12.57 hrs
Average Depth at Peak Storage= 0.49' , Surface Width= 3.97'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 72.195 ac, 1.07% Impervious, Inflow Depth = 0.54" for 2-Year event
Inflow = 18.65 cfs @ 12.62 hrs, Volume= 3.224 af
Outflow = 18.57 cfs @ 12.70 hrs, Volume= 3.224 af, Atten= 0%, Lag= 5.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.99 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 2.70 fps, Avg. Travel Time= 7.6 min

Peak Storage= 3,270 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.48' , Surface Width= 5.97'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Link SP1:

Inflow Area = 322.567 ac, 4.49% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 85.81 cfs @ 12.67 hrs, Volume= 16.317 af
Primary = 85.81 cfs @ 12.67 hrs, Volume= 16.317 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Inflow Area = 0.758 ac, 3.56% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 0.67 cfs @ 12.08 hrs, Volume= 0.046 af
Primary = 0.67 cfs @ 12.08 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 16.815 ac, 1.46% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 3.60 cfs @ 12.97 hrs, Volume= 0.831 af
Primary = 3.60 cfs @ 12.97 hrs, Volume= 0.831 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 9.755 ac, 2.26% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 3.87 cfs @ 12.35 hrs, Volume= 0.482 af
Primary = 3.87 cfs @ 12.35 hrs, Volume= 0.482 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 22.285 ac, 1.05% Impervious, Inflow Depth = 0.51" for 2-Year event
Inflow = 3.35 cfs @ 13.30 hrs, Volume= 0.955 af
Primary = 3.35 cfs @ 13.30 hrs, Volume= 0.955 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP14:

Inflow Area = 3.587 ac, 5.07% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 1.49 cfs @ 12.31 hrs, Volume= 0.177 af
Primary = 1.49 cfs @ 12.31 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 37.339 ac, 0.18% Impervious, Inflow Depth = 0.51" for 2-Year event
Inflow = 5.99 cfs @ 13.20 hrs, Volume= 1.601 af
Primary = 5.99 cfs @ 13.20 hrs, Volume= 1.601 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 0.416 ac, 18.75% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 0.51 cfs @ 12.05 hrs, Volume= 0.030 af
Primary = 0.51 cfs @ 12.05 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 7.386 ac, 2.63% Impervious, Inflow Depth = 0.51" for 2-Year event
Inflow = 2.29 cfs @ 12.39 hrs, Volume= 0.317 af
Primary = 2.29 cfs @ 12.39 hrs, Volume= 0.317 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 1.599 ac, 1.31% Impervious, Inflow Depth = 0.48" for 2-Year event
Inflow = 0.57 cfs @ 12.24 hrs, Volume= 0.064 af
Primary = 0.57 cfs @ 12.24 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 7.975 ac, 0.10% Impervious, Inflow Depth = 0.48" for 2-Year event
Inflow = 1.86 cfs @ 12.54 hrs, Volume= 0.317 af
Primary = 1.86 cfs @ 12.54 hrs, Volume= 0.317 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 4.825 ac, 1.45% Impervious, Inflow Depth = 0.68" for 2-Year event
Inflow = 1.93 cfs @ 12.46 hrs, Volume= 0.273 af
Primary = 1.93 cfs @ 12.46 hrs, Volume= 0.273 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 40.004 ac, 3.65% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 10.25 cfs @ 12.65 hrs, Volume= 1.843 af
Primary = 10.25 cfs @ 12.65 hrs, Volume= 1.843 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 6.228 ac, 0.32% Impervious, Inflow Depth = 0.51" for 2-Year event
Inflow = 1.83 cfs @ 12.43 hrs, Volume= 0.267 af
Primary = 1.83 cfs @ 12.43 hrs, Volume= 0.267 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 7.516 ac, 0.98% Impervious, Inflow Depth = 0.68" for 2-Year event
Inflow = 2.86 cfs @ 12.51 hrs, Volume= 0.425 af
Primary = 2.86 cfs @ 12.51 hrs, Volume= 0.425 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 2.642 ac, 1.48% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 1.33 cfs @ 12.26 hrs, Volume= 0.140 af
Primary = 1.33 cfs @ 12.26 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 10.169 ac, 4.49% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 3.98 cfs @ 12.55 hrs, Volume= 0.613 af
Primary = 3.98 cfs @ 12.55 hrs, Volume= 0.613 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 1.513 ac, 4.49% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 1.20 cfs @ 12.12 hrs, Volume= 0.091 af
Primary = 1.20 cfs @ 12.12 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 58.640 ac, 0.49% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 13.77 cfs @ 12.12 hrs, Volume= 2.969 af
Primary = 13.77 cfs @ 12.12 hrs, Volume= 2.969 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 3.053 ac, 0.39% Impervious, Inflow Depth = 0.68" for 2-Year event
Inflow = 1.48 cfs @ 12.32 hrs, Volume= 0.173 af
Primary = 1.48 cfs @ 12.32 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 29.113 ac, 0.99% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 11.72 cfs @ 12.39 hrs, Volume= 1.540 af
Primary = 11.72 cfs @ 12.39 hrs, Volume= 1.540 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 26.547 ac, 0.94% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 8.91 cfs @ 12.55 hrs, Volume= 1.404 af
Primary = 8.91 cfs @ 12.55 hrs, Volume= 1.404 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.343 ac, 19.24% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 0.58 cfs @ 11.91 hrs, Volume= 0.025 af
Primary = 0.58 cfs @ 11.91 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 8.117 ac, 2.27% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 2.45 cfs @ 12.57 hrs, Volume= 0.401 af
Primary = 2.45 cfs @ 12.57 hrs, Volume= 0.401 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS1 Runoff Area=3.816 ac 0.50% Impervious Runoff Depth=1.36"
Flow Length=1,200' Tc=20.2 min CN=77 Runoff=5.58 cfs 0.431 af

Subcatchment1A: WS1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=821' Tc=28.5 min CN=77 Runoff=3.62 cfs 0.348 af

Subcatchment1B: WS1B Runoff Area=8.471 ac 5.02% Impervious Runoff Depth=1.42"
Flow Length=2,480' Tc=14.1 min CN=78 Runoff=15.81 cfs 1.004 af

Subcatchment1C: WS1C Runoff Area=17.349 ac 18.91% Impervious Runoff Depth=1.63"
Flow Length=3,667' Tc=47.4 min CN=81 Runoff=17.63 cfs 2.354 af

Subcatchment1CA: WS 1CA Runoff Area=7.535 ac 41.66% Impervious Runoff Depth=2.01"
Flow Length=949' Tc=10.1 min CN=86 Runoff=22.70 cfs 1.262 af

Subcatchment1D: WS1D Runoff Area=79.398 ac 8.16% Impervious Runoff Depth=1.23"
Flow Length=6,450' Tc=43.6 min CN=75 Runoff=62.04 cfs 8.148 af

Subcatchment1E: WS1E Runoff Area=31.901 ac 1.29% Impervious Runoff Depth=1.11"
Flow Length=4,125' Tc=55.4 min CN=73 Runoff=18.47 cfs 2.959 af

Subcatchment1F: WS1F Runoff Area=40.294 ac 0.90% Impervious Runoff Depth=1.17"
Flow Length=4,191' Tc=48.6 min CN=74 Runoff=27.39 cfs 3.933 af

Subcatchment1G: WS 1G Runoff Area=33.788 ac 0.01% Impervious Runoff Depth=1.17"
Flow Length=4,645' Tc=34.6 min CN=74 Runoff=29.30 cfs 3.298 af

Subcatchment1H: WS 1H Runoff Area=59.491 ac 0.00% Impervious Runoff Depth=1.17"
Flow Length=4,804' Tc=55.9 min CN=74 Runoff=36.48 cfs 5.807 af

Subcatchment1I: WS1I Runoff Area=15.102 ac 0.81% Impervious Runoff Depth=1.29"
Flow Length=3,069' Tc=31.2 min CN=76 Runoff=15.85 cfs 1.628 af

Subcatchment1J: WS1J Runoff Area=22.346 ac 1.03% Impervious Runoff Depth=1.29"
Flow Length=3,101' Tc=25.4 min CN=76 Runoff=26.84 cfs 2.408 af

Subcatchment2: WS2 Runoff Area=4.825 ac 1.45% Impervious Runoff Depth=1.36"
Flow Length=1,847' Tc=44.0 min CN=77 Runoff=4.20 cfs 0.545 af

Subcatchment3: WS3 Runoff Area=1.513 ac 4.49% Impervious Runoff Depth=1.42"
Flow Length=681' Tc=18.2 min CN=78 Runoff=2.48 cfs 0.179 af

Subcatchment4: WS4 Runoff Area=20.325 ac 1.41% Impervious Runoff Depth=1.29"
Flow Length=3,739' Tc=18.0 min CN=76 Runoff=30.13 cfs 2.190 af

Subcatchment4A: WS4A Runoff Area=38.315 ac 0.00% Impervious Runoff Depth=1.23"
Flow Length=3,929' Tc=63.9 min CN=75 Runoff=22.62 cfs 3.932 af

Subcatchment5: WS5 Runoff Area=3.053 ac 0.39% Impervious Runoff Depth=1.36"
Flow Length=1,271' Tc=33.9 min CN=77 Runoff=3.20 cfs 0.345 af

Subcatchment6: WS6 Runoff Area=29.113 ac 0.99% Impervious Runoff Depth=1.29"
Flow Length=4,403' Tc=38.7 min CN=76 Runoff=26.28 cfs 3.138 af

Subcatchment7: WS7 Runoff Area=26.547 ac 0.94% Impervious Runoff Depth=1.29"
Flow Length=4,636' Tc=49.7 min CN=76 Runoff=19.98 cfs 2.861 af

Subcatchment8: WS8 Runoff Area=0.343 ac 19.24% Impervious Runoff Depth=1.63"
Flow Length=327' Tc=1.4 min CN=81 Runoff=1.09 cfs 0.047 af

Subcatchment9: WS9 Runoff Area=8.117 ac 2.27% Impervious Runoff Depth=1.23"
Flow Length=2,783' Tc=50.5 min CN=75 Runoff=5.70 cfs 0.833 af

Subcatchment10: WS10 Runoff Area=0.758 ac 3.56% Impervious Runoff Depth=1.42"
Flow Length=424' Tc=14.8 min CN=78 Runoff=1.38 cfs 0.090 af

Subcatchment11: WS11 Runoff Area=16.815 ac 1.46% Impervious Runoff Depth=1.23"
Flow Length=4,402' Tc=80.4 min CN=75 Runoff=8.37 cfs 1.726 af

Subcatchment12: WS12 Runoff Area=9.755 ac 2.26% Impervious Runoff Depth=1.23"
Flow Length=2,300' Tc=34.7 min CN=75 Runoff=8.97 cfs 1.001 af

Subcatchment13: WS13 Runoff Area=22.285 ac 1.05% Impervious Runoff Depth=1.11"
Flow Length=6,015' Tc=100.4 min CN=73 Runoff=8.27 cfs 2.067 af

Subcatchment14: WS14 Runoff Area=3.587 ac 5.07% Impervious Runoff Depth=1.23"
Flow Length=1,401' Tc=32.5 min CN=75 Runoff=3.45 cfs 0.368 af

Subcatchment15: WS15 Runoff Area=37.339 ac 0.18% Impervious Runoff Depth=1.11"
Flow Length=6,278' Tc=92.0 min CN=73 Runoff=14.75 cfs 3.463 af

Subcatchment16: WS16 Runoff Area=0.416 ac 18.75% Impervious Runoff Depth=1.63"
Flow Length=267' Tc=11.9 min CN=81 Runoff=0.96 cfs 0.056 af

Subcatchment17: WS17 Runoff Area=7.386 ac 2.63% Impervious Runoff Depth=1.11"
Flow Length=2,290' Tc=37.1 min CN=73 Runoff=5.72 cfs 0.685 af

Subcatchment18: WS18 Runoff Area=1.599 ac 1.31% Impervious Runoff Depth=1.06"
Flow Length=978' Tc=26.1 min CN=72 Runoff=1.48 cfs 0.141 af

Subcatchment19: WS19 Runoff Area=7.975 ac 0.10% Impervious Runoff Depth=1.06"
Flow Length=2,264' Tc=47.0 min CN=72 Runoff=4.87 cfs 0.702 af

Subcatchment20: WS20 Runoff Area=40.004 ac 3.65% Impervious Runoff Depth=1.17"
Flow Length=4,364' Tc=55.5 min CN=74 Runoff=24.64 cfs 3.905 af

Subcatchment21: WS21 Runoff Area=6.228 ac 0.32% Impervious Runoff Depth=1.11"
Flow Length=1,797' Tc=39.9 min CN=73 Runoff=4.58 cfs 0.578 af

Subcatchment22: WS22 Runoff Area=7.516 ac 0.98% Impervious Runoff Depth=1.36"
Flow Length=2,111' Tc=47.3 min CN=77 Runoff=6.22 cfs 0.850 af

Subcatchment23: WS23 Runoff Area=2.642 ac 1.48% Impervious Runoff Depth=1.29"
Flow Length=1,122' Tc=28.3 min CN=76 Runoff=2.95 cfs 0.285 af

Subcatchment24: WS24 Runoff Area=10.169 ac 4.49% Impervious Runoff Depth=1.42"
Flow Length=2,477' Tc=51.1 min CN=78 Runoff=8.39 cfs 1.205 af

Reach 40R: stream Avg. Flow Depth=0.57' Max Vel=5.91 fps Inflow=22.32 cfs 3.932 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=22.25 cfs 3.932 af

Reach 42R: stream Avg. Flow Depth=0.55' Max Vel=7.25 fps Inflow=22.62 cfs 3.932 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=22.32 cfs 3.932 af

Reach 102R: stream Avg. Flow Depth=1.69' Max Vel=8.72 fps Inflow=201.57 cfs 32.801 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=200.86 cfs 32.801 af

Reach 103R: stream Avg. Flow Depth=0.92' Max Vel=7.09 fps Inflow=58.42 cfs 9.106 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=58.28 cfs 9.106 af

Reach 104R: stream Avg. Flow Depth=1.22' Max Vel=9.32 fps Inflow=104.72 cfs 16.302 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=104.41 cfs 16.302 af

Reach 108R: stream Avg. Flow Depth=0.77' Max Vel=8.62 fps Inflow=58.98 cfs 9.106 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=58.42 cfs 9.106 af

Reach 110R: stream Avg. Flow Depth=1.27' Max Vel=11.10 fps Inflow=102.88 cfs 15.040 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=102.47 cfs 15.040 af

Reach 111R: upperstream Avg. Flow Depth=0.81' Max Vel=8.83 fps Inflow=27.39 cfs 3.933 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=27.29 cfs 3.933 af

Reach 112R: stream Avg. Flow Depth=0.83' Max Vel=9.45 fps Inflow=45.59 cfs 6.892 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=45.40 cfs 6.892 af

Link SP1: Inflow=203.85 cfs 33.580 af
Primary=203.85 cfs 33.580 af

Link SP10: Inflow=1.38 cfs 0.090 af
Primary=1.38 cfs 0.090 af

Link SP11: Inflow=8.37 cfs 1.726 af
Primary=8.37 cfs 1.726 af

Link SP12: Inflow=8.97 cfs 1.001 af
Primary=8.97 cfs 1.001 af

Link SP13: Inflow=8.27 cfs 2.067 af
Primary=8.27 cfs 2.067 af

Link SP14: Inflow=3.45 cfs 0.368 af
Primary=3.45 cfs 0.368 af

Link SP15: Inflow=14.75 cfs 3.463 af
Primary=14.75 cfs 3.463 af

Link SP16: Inflow=0.96 cfs 0.056 af
Primary=0.96 cfs 0.056 af

Link SP17: Inflow=5.72 cfs 0.685 af
Primary=5.72 cfs 0.685 af

Link SP18: Inflow=1.48 cfs 0.141 af
Primary=1.48 cfs 0.141 af

Link SP19: Inflow=4.87 cfs 0.702 af
Primary=4.87 cfs 0.702 af

Link SP2: Inflow=4.20 cfs 0.545 af
Primary=4.20 cfs 0.545 af

Link SP20: Inflow=24.64 cfs 3.905 af
Primary=24.64 cfs 3.905 af

Link SP21: Inflow=4.58 cfs 0.578 af
Primary=4.58 cfs 0.578 af

Link SP22: Inflow=6.22 cfs 0.850 af
Primary=6.22 cfs 0.850 af

Link SP23: Inflow=2.95 cfs 0.285 af
Primary=2.95 cfs 0.285 af

Link SP24: Inflow=8.39 cfs 1.205 af
Primary=8.39 cfs 1.205 af

Link SP3: Inflow=2.48 cfs 0.179 af
Primary=2.48 cfs 0.179 af

Link SP4: Inflow=30.76 cfs 6.123 af
Primary=30.76 cfs 6.123 af

Link SP5: Inflow=3.20 cfs 0.345 af
Primary=3.20 cfs 0.345 af

Link SP6: Inflow=26.28 cfs 3.138 af
Primary=26.28 cfs 3.138 af

Link SP7: Inflow=19.98 cfs 2.861 af
Primary=19.98 cfs 2.861 af

Link SP8: Inflow=1.09 cfs 0.047 af
Primary=1.09 cfs 0.047 af

Link SP9: Inflow=5.70 cfs 0.833 af
Primary=5.70 cfs 0.833 af

Total Runoff Area = 629.192 ac Runoff Volume = 64.771 af Average Runoff Depth = 1.24"
96.98% Pervious = 610.171 ac 3.02% Impervious = 19.021 ac

Summary for Subcatchment 1: WS1

Runoff = 5.58 cfs @ 12.14 hrs, Volume= 0.431 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.019	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.765	77	Existing Woods, Good, HSG D
3.816	77	Weighted Average
3.797		99.50% Pervious Area
0.019		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.0	358	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	299	0.0600	9.68	232.28	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
20.2	1,200	Total			

Summary for Subcatchment 1A: WS1A

Runoff = 3.62 cfs @ 12.24 hrs, Volume= 0.348 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.011	78	Existing meadow, non-grazed, HSG D
3.065	77	Existing Woods, Good, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
28.5	821	Total			

Summary for Subcatchment 1B: WS1B

Runoff = 15.81 cfs @ 12.07 hrs, Volume= 1.004 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.425	98	Existing impervious, HSG D
0.427	78	Existing meadow, non-grazed, HSG D
7.619	77	Existing Woods, Good, HSG D
8.471	78	Weighted Average
8.046		94.98% Pervious Area
0.425		5.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.4	336	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	339	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	336	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	278	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	283	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	118	0.0800	13.91	41.73	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	164	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	83	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
14.1	2,480	Total			

Summary for Subcatchment 1C: WS1C

Runoff = 17.63 cfs @ 12.47 hrs, Volume= 2.354 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
3.281	98	Existing impervious, HSG D
3.704	78	Existing meadow, non-grazed, HSG D
10.364	77	Existing Woods, Good, HSG D
17.349	81	Weighted Average
14.068		81.09% Pervious Area
3.281		18.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	172	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	164	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.9	77	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	157	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.5	350	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	219	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	251	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	316	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	73	0.1900	21.44	64.31	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	300	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	179	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
10.2	342	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	236	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	199	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	224	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	360	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
47.4	3,667	Total			

Summary for Subcatchment 1CA: WS 1CA

Runoff = 22.70 cfs @ 12.02 hrs, Volume= 1.262 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
3.139	98	Existing impervious, HSG D
0.835	78	Existing meadow, non-grazed, HSG D
3.561	77	Existing Woods, Good, HSG D
7.535	86	Weighted Average
4.396		58.34% Pervious Area
3.139		41.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
3.0	89	0.0400	0.50		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	161	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	391	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
3.6	208	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.1	949	Total			

Summary for Subcatchment 1D: WS1D

Runoff = 62.04 cfs @ 12.44 hrs, Volume= 8.148 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
4.794	98	Existing impervious, HSG C
1.682	98	Existing impervious, HSG D
15.372	71	Existing meadow, non-grazed, HSG C
10.464	78	Existing meadow, non-grazed, HSG D
27.478	70	Existing Woods, Good, HSG C
19.608	77	Existing Woods, Good, HSG D
79.398	75	Weighted Average
72.922		91.84% Pervious Area
6.476		8.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.2300	0.27		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.9	388	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	312	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.8	440	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	123	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.6	266	0.1300	7.32		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.2	457	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	378	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	258	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	263	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
4.2	242	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	150	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	256	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	314	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	390	0.0500	8.83	212.04	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00'

n= 0.050 Mountain streams w/large boulders

43.6	6,450	Total

Summary for Subcatchment 1E: WS1E

Runoff = 18.47 cfs @ 12.61 hrs, Volume= 2.959 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.328	98	Existing impervious, HSG C
0.082	98	Existing impervious, HSG D
3.846	71	Existing meadow, non-grazed, HSG C
4.272	78	Existing meadow, non-grazed, HSG D
17.223	70	Existing Woods, Good, HSG C
6.150	77	Existing Woods, Good, HSG D
31.901	73	Weighted Average
31.491		98.71% Pervious Area
0.410		1.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	113	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	154	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	191	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	146	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	137	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	204	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	134	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	286	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	261	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	341	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	423	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.9	196	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	223	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.2	189	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
55.4	4,125	Total			

Summary for Subcatchment 1F: WS1F

Runoff = 27.39 cfs @ 12.51 hrs, Volume= 3.933 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.002	98	Existing impervious, HSG C
0.362	98	Existing impervious, HSG D
4.817	71	Existing meadow, non-grazed, HSG C
9.293	78	Existing meadow, non-grazed, HSG D
15.585	70	Existing Woods, Good, HSG C
10.235	77	Existing Woods, Good, HSG D
40.294	74	Weighted Average
39.930		99.10% Pervious Area
0.364		0.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	144	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
48.6	4,191	Total			

Summary for Subcatchment 1G: WS 1G

Runoff = 29.30 cfs @ 12.32 hrs, Volume= 3.298 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.906	71	Existing meadow, non-grazed, HSG C
12.918	70	Existing Woods, Good, HSG C
0.004	98	Existing impervious, HSG D
3.805	78	Existing meadow, non-grazed, HSG D
16.155	77	Existing Woods, Good, HSG D
33.788	74	Weighted Average
33.784		99.99% Pervious Area
0.004		0.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.1200	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.3	182	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	443	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	118	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	458	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	564	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	366	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	162	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	449	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	450	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	408	0.2100	14.99	149.94	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.7	554	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	391	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
34.6	4,645	Total			

Summary for Subcatchment 1H: WS 1H

Runoff = 36.48 cfs @ 12.61 hrs, Volume= 5.807 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
2.007	71	Existing meadow, non-grazed, HSG C
22.781	70	Existing Woods, Good, HSG C
4.416	78	Existing meadow, non-grazed, HSG D
30.287	77	Existing Woods, Good, HSG D
59.491	74	Weighted Average
59.491		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	59	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.5	105	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	330	0.3600	4.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	212	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	108	0.2400	3.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	346	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	190	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	320	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	411	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	281	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	255	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	223	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	601	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	147	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	403	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	348	0.1600	14.26	199.63	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
0.5	465	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
55.9	4,804	Total			

Summary for Subcatchment 1I: WS1I

Runoff = 15.85 cfs @ 12.27 hrs, Volume= 1.628 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.123	98	Existing impervious, HSG D
2.494	70	Existing Woods, Good, HSG C
12.485	77	Existing Woods, Good, HSG D
15.102	76	Weighted Average
14.979		99.19% Pervious Area
0.123		0.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	293	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	337	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	279	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	199	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	431	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
31.2	3,069	Total			

Summary for Subcatchment 1J: WS1J

Runoff = 26.84 cfs @ 12.20 hrs, Volume= 2.408 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Existing impervious, HSG D
0.095	71	Existing meadow, non-grazed, HSG C
0.159	78	Existing meadow, non-grazed, HSG D
4.342	70	Existing Woods, Good, HSG C
17.520	77	Existing Woods, Good, HSG D
22.346	76	Weighted Average
22.116		98.97% Pervious Area
0.230		1.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.3	269	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	336	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	167	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	486	0.1300	15.28	641.91	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	546	0.1700	17.48	734.06	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	483	0.1200	14.68	616.73	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	426	0.1100	14.06	590.48	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.4	336	0.0900	12.72	534.11	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
25.4	3,101	Total			

Summary for Subcatchment 2: WS2

Runoff = 4.20 cfs @ 12.44 hrs, Volume= 0.545 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.070	98	Existing impervious, HSG D
0.750	78	Existing meadow, non-grazed, HSG D
4.005	77	Existing Woods, Good, HSG D
4.825	77	Weighted Average
4.755		98.55% Pervious Area
0.070		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	49	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	349	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	156	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	279	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	154	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	339	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.3	374	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	147	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
44.0	1,847	Total			

Summary for Subcatchment 3: WS3

Runoff = 2.48 cfs @ 12.11 hrs, Volume= 0.179 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.068	98	Existing impervious, HSG D
0.254	78	Existing meadow, non-grazed, HSG D
1.191	77	Existing Woods, Good, HSG D
1.513	78	Weighted Average
1.445		95.51% Pervious Area
0.068		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	60	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	97	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	169	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	319	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
18.2	681	Total			

Summary for Subcatchment 4: WS4

Runoff = 30.13 cfs @ 12.11 hrs, Volume= 2.190 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.287	98	Existing impervious, HSG D
0.739	71	Existing meadow, non-grazed, HSG C
1.095	78	Existing meadow, non-grazed, HSG D
2.883	70	Existing Woods, Good, HSG C
15.321	77	Existing Woods, Good, HSG D
20.325	76	Weighted Average
20.038		98.59% Pervious Area
0.287		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	56	0.2000	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.4	164	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	417	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	544	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	711	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	404	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	338	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	432	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	424	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	249	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
18.0	3,739	Total			

Summary for Subcatchment 4A: WS4A

Runoff = 22.62 cfs @ 12.71 hrs, Volume= 3.932 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.521	71	Existing meadow, non-grazed, HSG C
4.362	78	Existing meadow, non-grazed, HSG D
12.444	70	Existing Woods, Good, HSG C
20.988	77	Existing Woods, Good, HSG D
38.315	75	Weighted Average
38.315		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	73	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.0	529	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	350	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	505	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.5	623	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	355	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	337	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	437	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	330	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	345	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	45	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
63.9	3,929	Total			

Summary for Subcatchment 5: WS5

Runoff = 3.20 cfs @ 12.31 hrs, Volume= 0.345 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.012	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.009	77	Existing Woods, Good, HSG D
3.053	77	Weighted Average
3.041		99.61% Pervious Area
0.012		0.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	35	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	169	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.7	271	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
33.9	1,271	Total			

Summary for Subcatchment 6: WS6

Runoff = 26.28 cfs @ 12.37 hrs, Volume= 3.138 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.537	71	Existing meadow, non-grazed, HSG C
3.855	70	Existing Woods, Good, HSG C
0.287	98	Existing impervious, HSG D
3.372	78	Existing meadow, non-grazed, HSG D
21.062	77	Existing Woods, Good, HSG D
29.113	76	Weighted Average
28.826		99.01% Pervious Area
0.287		0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	10	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	145	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.7	333	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.8	441	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	290	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	290	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	681	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	418	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	729	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	465	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	466	0.0600	8.01	80.15	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	85	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
38.7	4,403	Total			

Summary for Subcatchment 7: WS7

Runoff = 19.98 cfs @ 12.52 hrs, Volume= 2.861 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.688	71	Existing meadow, non-grazed, HSG C
5.100	70	Existing Woods, Good, HSG C
0.250	98	Existing impervious, HSG D
3.025	78	Existing meadow, non-grazed, HSG D
17.484	77	Existing Woods, Good, HSG D
26.547	76	Weighted Average
26.297		99.06% Pervious Area
0.250		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	64	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.0	312	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	360	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
12.6	565	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.0	406	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.9	185	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	324	0.3000	17.92	179.21	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	279	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	330	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	224	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	139	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	287	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	361	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	417	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	253	0.0500	7.32	73.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,**

Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00'
n= 0.022 Earth, clean & straight

49.7	4,636	Total

Summary for Subcatchment 8: WS8

Runoff = 1.09 cfs @ 11.91 hrs, Volume= 0.047 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.066	98	Existing impervious, HSG D
0.047	78	Existing meadow, non-grazed, HSG D
0.230	77	Existing Woods, Good, HSG D
0.343	81	Weighted Average
0.277		80.76% Pervious Area
0.066		19.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	40	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
1.4	327	Total			

Summary for Subcatchment 9: WS9

Runoff = 5.70 cfs @ 12.53 hrs, Volume= 0.833 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.078	71	Existing meadow, non-grazed, HSG C
2.614	70	Existing Woods, Good, HSG C
0.184	98	Existing impervious, HSG D
0.343	78	Existing meadow, non-grazed, HSG D
4.898	77	Existing Woods, Good, HSG D
8.117	75	Weighted Average
7.933		97.73% Pervious Area
0.184		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	27	0.0500	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.4	283	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	583	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.0	403	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	554	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	172	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	350	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	411	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
50.5	2,783	Total			

Summary for Subcatchment 10: WS10

Runoff = 1.38 cfs @ 12.07 hrs, Volume= 0.090 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.027	98	Existing impervious, HSG D
0.044	78	Existing meadow, non-grazed, HSG D
0.687	77	Existing Woods, Good, HSG D
0.758	78	Weighted Average
0.731		96.44% Pervious Area
0.027		3.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	70	0.3100	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	65	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	187	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
14.8	424	Total			

Summary for Subcatchment 11: WS11

Runoff = 8.37 cfs @ 12.94 hrs, Volume= 1.726 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.245	98	Existing impervious, HSG D
1.349	71	Existing meadow, non-grazed, HSG C
2.297	78	Existing meadow, non-grazed, HSG D
4.751	70	Existing Woods, Good, HSG C
8.173	77	Existing Woods, Good, HSG D
16.815	75	Weighted Average
16.570		98.54% Pervious Area
0.245		1.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	65	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	366	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.1	527	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	398	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
17.0	763	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	211	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	377	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.2	506	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	368	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	220	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	401	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	200	0.0900	22.31	223.09	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
80.4	4,402	Total			

Summary for Subcatchment 12: WS12

Runoff = 8.97 cfs @ 12.32 hrs, Volume= 1.001 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.280	71	Existing meadow, non-grazed, HSG C
3.976	70	Existing Woods, Good, HSG C
0.220	98	Existing impervious, HSG D
1.035	78	Existing meadow, non-grazed, HSG D
4.244	77	Existing Woods, Good, HSG D
9.755	75	Weighted Average
9.535		97.74% Pervious Area
0.220		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.4	320	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.0	562	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	281	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	261	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	284	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	261	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
34.7	2,300	Total			

Summary for Subcatchment 13: WS13

Runoff = 8.27 cfs @ 13.26 hrs, Volume= 2.067 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
4.203	71	Existing meadow, non-grazed, HSG C
9.072	70	Existing Woods, Good, HSG C
0.235	98	Existing impervious, HSG D
1.694	78	Existing meadow, non-grazed, HSG D
7.081	77	Existing Woods, Good, HSG D
22.285	73	Weighted Average
22.050		98.95% Pervious Area
0.235		1.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	76	0.3700	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.9	537	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	448	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	645	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	497	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	536	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.2	434	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	714	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.2	649	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.9	645	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	307	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	328	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	199	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
100.4	6,015	Total			

Summary for Subcatchment 14: WS14

Runoff = 3.45 cfs @ 12.29 hrs, Volume= 0.368 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.691	71	Existing meadow, non-grazed, HSG C
0.959	70	Existing Woods, Good, HSG C
0.182	98	Existing impervious, HSG D
0.231	78	Existing meadow, non-grazed, HSG D
1.524	77	Existing Woods, Good, HSG D
3.587	75	Weighted Average
3.405		94.93% Pervious Area
0.182		5.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	45	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.1	8	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	350	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	313	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	294	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	168	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	163	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	60	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
32.5	1,401	Total			

Summary for Subcatchment 15: WS15

Runoff = 14.75 cfs @ 13.14 hrs, Volume= 3.463 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
8.870	71	Existing meadow, non-grazed, HSG C
16.898	70	Existing Woods, Good, HSG C
0.067	98	Existing impervious, HSG D
2.332	78	Existing meadow, non-grazed, HSG D
9.172	77	Existing Woods, Good, HSG D
37.339	73	Weighted Average
37.272		99.82% Pervious Area
0.067		0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	72	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.8	586	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.9	673	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.6	625	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	664	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	484	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.7	700	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.6	529	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.6	717	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	573	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	386	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
92.0	6,278	Total			

Summary for Subcatchment 16: WS16

Runoff = 0.96 cfs @ 12.04 hrs, Volume= 0.056 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.078	98	Existing impervious, HSG D
0.048	78	Existing meadow, non-grazed, HSG D
0.290	77	Existing Woods, Good, HSG D
0.416	81	Weighted Average
0.338		81.25% Pervious Area
0.078		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	63	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	153	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
11.9	267	Total			

Summary for Subcatchment 17: WS17

Runoff = 5.72 cfs @ 12.36 hrs, Volume= 0.685 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.194	98	Existing impervious, HSG D
1.145	71	Existing meadow, non-grazed, HSG C
0.402	78	Existing meadow, non-grazed, HSG D
3.907	70	Existing Woods, Good, HSG C
1.738	77	Existing Woods, Good, HSG D
7.386	73	Weighted Average
7.192		97.37% Pervious Area
0.194		2.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	44	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
9.8	531	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	236	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	372	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	437	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	142	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	238	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
37.1	2,290	Total			

Summary for Subcatchment 18: WS18

Runoff = 1.48 cfs @ 12.22 hrs, Volume= 0.141 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.172	71	Existing meadow, non-grazed, HSG C
1.110	70	Existing Woods, Good, HSG C
0.021	98	Existing impervious, HSG D
0.028	78	Existing meadow, non-grazed, HSG D
0.268	77	Existing Woods, Good, HSG D
1.599	72	Weighted Average
1.578		98.69% Pervious Area
0.021		1.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	57	0.2100	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	68	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	218	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	281	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	258	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	96	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
26.1	978	Total			

Summary for Subcatchment 19: WS19

Runoff = 4.87 cfs @ 12.50 hrs, Volume= 0.702 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.008	98	Existing impervious, HSG D
0.954	71	Existing meadow, non-grazed, HSG C
0.384	78	Existing meadow, non-grazed, HSG D
4.939	70	Existing Woods, Good, HSG C
1.690	77	Existing Woods, Good, HSG D
7.975	72	Weighted Average
7.967		99.90% Pervious Area
0.008		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.3	262	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	422	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	501	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	213	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	258	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.7	465	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.0	2,264	Total			

Summary for Subcatchment 20: WS20

Runoff = 24.64 cfs @ 12.61 hrs, Volume= 3.905 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
1.023	98	Existing impervious, HSG C
0.436	98	Existing impervious, HSG D
6.987	71	Existing meadow, non-grazed, HSG C
6.713	78	Existing meadow, non-grazed, HSG D
16.006	70	Existing Woods, Good, HSG C
8.839	77	Existing Woods, Good, HSG D
40.004	74	Weighted Average
38.545		96.35% Pervious Area
1.459		3.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.9	242	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	278	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	258	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	134	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	77	0.2600	3.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	165	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.4	177	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	237	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	232	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	544	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.4	332	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	188	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	252	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	298	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	200	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	229	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	227	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	242	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
55.5	4,364	Total			

Summary for Subcatchment 21: WS21

Runoff = 4.58 cfs @ 12.40 hrs, Volume= 0.578 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.020	98	Existing impervious, HSG D
0.181	71	Existing meadow, non-grazed, HSG C
0.412	78	Existing meadow, non-grazed, HSG D
3.099	70	Existing Woods, Good, HSG C
2.516	77	Existing Woods, Good, HSG D
6.228	73	Weighted Average
6.208		99.68% Pervious Area
0.020		0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	356	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	262	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	364	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	189	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	194	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	69	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
39.9	1,797	Total			

Summary for Subcatchment 22: WS22

Runoff = 6.22 cfs @ 12.47 hrs, Volume= 0.850 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.074	98	Existing impervious, HSG D
0.307	71	Existing meadow, non-grazed, HSG C
2.930	78	Existing meadow, non-grazed, HSG D
0.876	70	Existing Woods, Good, HSG C
3.329	77	Existing Woods, Good, HSG D
7.516	77	Weighted Average
7.442		99.02% Pervious Area
0.074		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	290	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	266	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	395	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	315	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.4	382	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	377	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	44	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.3	2,111	Total			

Summary for Subcatchment 23: WS23

Runoff = 2.95 cfs @ 12.24 hrs, Volume= 0.285 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.039	98	Existing impervious, HSG D
0.363	71	Existing meadow, non-grazed, HSG C
0.449	78	Existing meadow, non-grazed, HSG D
0.148	70	Existing Woods, Good, HSG C
1.643	77	Existing Woods, Good, HSG D
2.642	76	Weighted Average
2.603		98.52% Pervious Area
0.039		1.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.5	212	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	247	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	267	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.0	280	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	66	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
28.3	1,122	Total			

Summary for Subcatchment 24: WS24

Runoff = 8.39 cfs @ 12.53 hrs, Volume= 1.205 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.457	98	Existing impervious, HSG D
0.399	71	Existing meadow, non-grazed, HSG C
3.359	78	Existing meadow, non-grazed, HSG D
0.012	70	Existing Woods, Good, HSG C
5.942	77	Existing Woods, Good, HSG D
10.169	78	Weighted Average
9.712		95.51% Pervious Area
0.457		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
11.8	613	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	420	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	139	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	108	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	227	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	240	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	201	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	225	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	242	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.0	19	0.2100	12.09	36.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
51.1	2,477	Total			

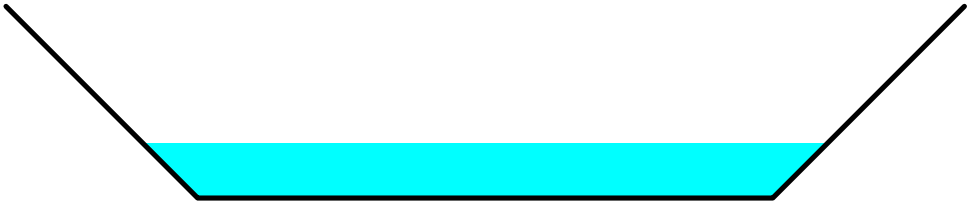
Summary for Reach 40R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 22.32 cfs @ 12.87 hrs, Volume= 3.932 af
Outflow = 22.25 cfs @ 12.93 hrs, Volume= 3.932 af, Atten= 0%, Lag= 3.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.91 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.80 fps, Avg. Travel Time= 7.1 min

Peak Storage= 2,901 cf @ 12.90 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 7.15'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'



Summary for Reach 42R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 22.62 cfs @ 12.71 hrs, Volume= 3.932 af
Outflow = 22.32 cfs @ 12.87 hrs, Volume= 3.932 af, Atten= 1%, Lag= 9.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.25 fps, Min. Travel Time= 5.6 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 19.3 min

Peak Storage= 7,507 cf @ 12.77 hrs
Average Depth at Peak Storage= 0.55' , Surface Width= 6.11'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 102R: stream

Inflow Area = 315.675 ac, 4.58% Impervious, Inflow Depth = 1.25" for 10-Year event
Inflow = 201.57 cfs @ 12.54 hrs, Volume= 32.801 af
Outflow = 200.86 cfs @ 12.59 hrs, Volume= 32.801 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.72 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 5.9 min

Peak Storage= 20,553 cf @ 12.56 hrs
Average Depth at Peak Storage= 1.69' , Surface Width= 15.37'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 58.42 cfs @ 12.56 hrs, Volume= 9.106 af
Outflow = 58.28 cfs @ 12.58 hrs, Volume= 9.106 af, Atten= 0%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.09 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.29 fps, Avg. Travel Time= 2.0 min

Peak Storage= 2,263 cf @ 12.57 hrs
Average Depth at Peak Storage= 0.92' , Surface Width= 9.84'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 159.128 ac, 6.53% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 104.72 cfs @ 12.57 hrs, Volume= 16.302 af
Outflow = 104.41 cfs @ 12.59 hrs, Volume= 16.302 af, Atten= 0%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.32 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 2.83 fps, Avg. Travel Time= 2.9 min

Peak Storage= 5,555 cf @ 12.58 hrs
Average Depth at Peak Storage= 1.22' , Surface Width= 10.43'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 58.98 cfs @ 12.45 hrs, Volume= 9.106 af
Outflow = 58.42 cfs @ 12.56 hrs, Volume= 9.106 af, Atten= 1%, Lag= 6.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.62 fps, Min. Travel Time= 3.8 min
Avg. Velocity = 2.72 fps, Avg. Travel Time= 12.1 min

Peak Storage= 13,369 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.77' , Surface Width= 9.55'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 151.593 ac, 4.78% Impervious, Inflow Depth = 1.19" for 10-Year event
Inflow = 102.88 cfs @ 12.52 hrs, Volume= 15.040 af
Outflow = 102.47 cfs @ 12.57 hrs, Volume= 15.040 af, Atten= 0%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 11.10 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 3.80 fps, Avg. Travel Time= 5.2 min

Peak Storage= 10,874 cf @ 12.54 hrs
Average Depth at Peak Storage= 1.27' , Surface Width= 8.54'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 40.294 ac, 0.90% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 27.39 cfs @ 12.51 hrs, Volume= 3.933 af
Outflow = 27.29 cfs @ 12.55 hrs, Volume= 3.933 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.83 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 3.35 fps, Avg. Travel Time= 3.4 min

Peak Storage= 2,125 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.81' , Surface Width= 4.63'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 72.195 ac, 1.07% Impervious, Inflow Depth = 1.15" for 10-Year event
Inflow = 45.59 cfs @ 12.57 hrs, Volume= 6.892 af
Outflow = 45.40 cfs @ 12.63 hrs, Volume= 6.892 af, Atten= 0%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.45 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 3.32 fps, Avg. Travel Time= 6.2 min

Peak Storage= 5,922 cf @ 12.59 hrs
Average Depth at Peak Storage= 0.83' , Surface Width= 6.65'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Link SP1:

Inflow Area = 322.567 ac, 4.49% Impervious, Inflow Depth = 1.25" for 10-Year event
Inflow = 203.85 cfs @ 12.58 hrs, Volume= 33.580 af
Primary = 203.85 cfs @ 12.58 hrs, Volume= 33.580 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Inflow Area = 0.758 ac, 3.56% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 1.38 cfs @ 12.07 hrs, Volume= 0.090 af
Primary = 1.38 cfs @ 12.07 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 16.815 ac, 1.46% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 8.37 cfs @ 12.94 hrs, Volume= 1.726 af
Primary = 8.37 cfs @ 12.94 hrs, Volume= 1.726 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 9.755 ac, 2.26% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 8.97 cfs @ 12.32 hrs, Volume= 1.001 af
Primary = 8.97 cfs @ 12.32 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 22.285 ac, 1.05% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 8.27 cfs @ 13.26 hrs, Volume= 2.067 af
Primary = 8.27 cfs @ 13.26 hrs, Volume= 2.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP14:

Inflow Area = 3.587 ac, 5.07% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 3.45 cfs @ 12.29 hrs, Volume= 0.368 af
Primary = 3.45 cfs @ 12.29 hrs, Volume= 0.368 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 37.339 ac, 0.18% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 14.75 cfs @ 13.14 hrs, Volume= 3.463 af
Primary = 14.75 cfs @ 13.14 hrs, Volume= 3.463 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 0.416 ac, 18.75% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 0.96 cfs @ 12.04 hrs, Volume= 0.056 af
Primary = 0.96 cfs @ 12.04 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 7.386 ac, 2.63% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 5.72 cfs @ 12.36 hrs, Volume= 0.685 af
Primary = 5.72 cfs @ 12.36 hrs, Volume= 0.685 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 1.599 ac, 1.31% Impervious, Inflow Depth = 1.06" for 10-Year event
Inflow = 1.48 cfs @ 12.22 hrs, Volume= 0.141 af
Primary = 1.48 cfs @ 12.22 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 7.975 ac, 0.10% Impervious, Inflow Depth = 1.06" for 10-Year event
Inflow = 4.87 cfs @ 12.50 hrs, Volume= 0.702 af
Primary = 4.87 cfs @ 12.50 hrs, Volume= 0.702 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 4.825 ac, 1.45% Impervious, Inflow Depth = 1.36" for 10-Year event
Inflow = 4.20 cfs @ 12.44 hrs, Volume= 0.545 af
Primary = 4.20 cfs @ 12.44 hrs, Volume= 0.545 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 40.004 ac, 3.65% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 24.64 cfs @ 12.61 hrs, Volume= 3.905 af
Primary = 24.64 cfs @ 12.61 hrs, Volume= 3.905 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 6.228 ac, 0.32% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 4.58 cfs @ 12.40 hrs, Volume= 0.578 af
Primary = 4.58 cfs @ 12.40 hrs, Volume= 0.578 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 7.516 ac, 0.98% Impervious, Inflow Depth = 1.36" for 10-Year event
Inflow = 6.22 cfs @ 12.47 hrs, Volume= 0.850 af
Primary = 6.22 cfs @ 12.47 hrs, Volume= 0.850 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 2.642 ac, 1.48% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 2.95 cfs @ 12.24 hrs, Volume= 0.285 af
Primary = 2.95 cfs @ 12.24 hrs, Volume= 0.285 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 10.169 ac, 4.49% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 8.39 cfs @ 12.53 hrs, Volume= 1.205 af
Primary = 8.39 cfs @ 12.53 hrs, Volume= 1.205 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 1.513 ac, 4.49% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 2.48 cfs @ 12.11 hrs, Volume= 0.179 af
Primary = 2.48 cfs @ 12.11 hrs, Volume= 0.179 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 58.640 ac, 0.49% Impervious, Inflow Depth = 1.25" for 10-Year event
Inflow = 30.76 cfs @ 12.12 hrs, Volume= 6.123 af
Primary = 30.76 cfs @ 12.12 hrs, Volume= 6.123 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 3.053 ac, 0.39% Impervious, Inflow Depth = 1.36" for 10-Year event
Inflow = 3.20 cfs @ 12.31 hrs, Volume= 0.345 af
Primary = 3.20 cfs @ 12.31 hrs, Volume= 0.345 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 29.113 ac, 0.99% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 26.28 cfs @ 12.37 hrs, Volume= 3.138 af
Primary = 26.28 cfs @ 12.37 hrs, Volume= 3.138 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 26.547 ac, 0.94% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 19.98 cfs @ 12.52 hrs, Volume= 2.861 af
Primary = 19.98 cfs @ 12.52 hrs, Volume= 2.861 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.343 ac, 19.24% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 1.09 cfs @ 11.91 hrs, Volume= 0.047 af
Primary = 1.09 cfs @ 11.91 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 8.117 ac, 2.27% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 5.70 cfs @ 12.53 hrs, Volume= 0.833 af
Primary = 5.70 cfs @ 12.53 hrs, Volume= 0.833 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS1 Runoff Area=3.816 ac 0.50% Impervious Runoff Depth=1.97"
Flow Length=1,200' Tc=20.2 min CN=77 Runoff=8.22 cfs 0.626 af

Subcatchment1A: WS1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=821' Tc=28.5 min CN=77 Runoff=5.36 cfs 0.505 af

Subcatchment1B: WS1B Runoff Area=8.471 ac 5.02% Impervious Runoff Depth=2.05"
Flow Length=2,480' Tc=14.1 min CN=78 Runoff=22.94 cfs 1.445 af

Subcatchment1C: WS1C Runoff Area=17.349 ac 18.91% Impervious Runoff Depth=2.29"
Flow Length=3,667' Tc=47.4 min CN=81 Runoff=25.08 cfs 3.312 af

Subcatchment1CA: WS 1CA Runoff Area=7.535 ac 41.66% Impervious Runoff Depth=2.73"
Flow Length=949' Tc=10.1 min CN=86 Runoff=30.52 cfs 1.713 af

Subcatchment1D: WS1D Runoff Area=79.398 ac 8.16% Impervious Runoff Depth=1.82"
Flow Length=6,450' Tc=43.6 min CN=75 Runoff=94.45 cfs 12.030 af

Subcatchment1E: WS1E Runoff Area=31.901 ac 1.29% Impervious Runoff Depth=1.67"
Flow Length=4,125' Tc=55.4 min CN=73 Runoff=28.96 cfs 4.446 af

Subcatchment1F: WS1F Runoff Area=40.294 ac 0.90% Impervious Runoff Depth=1.74"
Flow Length=4,191' Tc=48.6 min CN=74 Runoff=42.31 cfs 5.858 af

Subcatchment1G: WS 1G Runoff Area=33.788 ac 0.01% Impervious Runoff Depth=1.74"
Flow Length=4,645' Tc=34.6 min CN=74 Runoff=45.13 cfs 4.912 af

Subcatchment1H: WS 1H Runoff Area=59.491 ac 0.00% Impervious Runoff Depth=1.74"
Flow Length=4,804' Tc=55.9 min CN=74 Runoff=56.38 cfs 8.649 af

Subcatchment1I: WS1I Runoff Area=15.102 ac 0.81% Impervious Runoff Depth=1.89"
Flow Length=3,069' Tc=31.2 min CN=76 Runoff=23.77 cfs 2.382 af

Subcatchment1J: WS1J Runoff Area=22.346 ac 1.03% Impervious Runoff Depth=1.89"
Flow Length=3,101' Tc=25.4 min CN=76 Runoff=40.14 cfs 3.525 af

Subcatchment2: WS2 Runoff Area=4.825 ac 1.45% Impervious Runoff Depth=1.97"
Flow Length=1,847' Tc=44.0 min CN=77 Runoff=6.24 cfs 0.792 af

Subcatchment3: WS3 Runoff Area=1.513 ac 4.49% Impervious Runoff Depth=2.05"
Flow Length=681' Tc=18.2 min CN=78 Runoff=3.60 cfs 0.258 af

Subcatchment4: WS4 Runoff Area=20.325 ac 1.41% Impervious Runoff Depth=1.89"
Flow Length=3,739' Tc=18.0 min CN=76 Runoff=44.85 cfs 3.206 af

Subcatchment4A: WS4A Runoff Area=38.315 ac 0.00% Impervious Runoff Depth=1.82"
Flow Length=3,929' Tc=63.9 min CN=75 Runoff=34.51 cfs 5.805 af

Subcatchment5: WS5 Runoff Area=3.053 ac 0.39% Impervious Runoff Depth=1.97"
Flow Length=1,271' Tc=33.9 min CN=77 Runoff=4.74 cfs 0.501 af

Subcatchment6: WS6 Runoff Area=29.113 ac 0.99% Impervious Runoff Depth=1.89"
Flow Length=4,403' Tc=38.7 min CN=76 Runoff=39.48 cfs 4.593 af

Subcatchment7: WS7 Runoff Area=26.547 ac 0.94% Impervious Runoff Depth=1.89"
Flow Length=4,636' Tc=49.7 min CN=76 Runoff=30.05 cfs 4.188 af

Subcatchment8: WS8 Runoff Area=0.343 ac 19.24% Impervious Runoff Depth=2.29"
Flow Length=327' Tc=1.4 min CN=81 Runoff=1.52 cfs 0.065 af

Subcatchment9: WS9 Runoff Area=8.117 ac 2.27% Impervious Runoff Depth=1.82"
Flow Length=2,783' Tc=50.5 min CN=75 Runoff=8.69 cfs 1.230 af

Subcatchment10: WS10 Runoff Area=0.758 ac 3.56% Impervious Runoff Depth=2.05"
Flow Length=424' Tc=14.8 min CN=78 Runoff=2.00 cfs 0.129 af

Subcatchment11: WS11 Runoff Area=16.815 ac 1.46% Impervious Runoff Depth=1.82"
Flow Length=4,402' Tc=80.4 min CN=75 Runoff=12.76 cfs 2.548 af

Subcatchment12: WS12 Runoff Area=9.755 ac 2.26% Impervious Runoff Depth=1.82"
Flow Length=2,300' Tc=34.7 min CN=75 Runoff=13.63 cfs 1.478 af

Subcatchment13: WS13 Runoff Area=22.285 ac 1.05% Impervious Runoff Depth=1.67"
Flow Length=6,015' Tc=100.4 min CN=73 Runoff=12.94 cfs 3.106 af

Subcatchment14: WS14 Runoff Area=3.587 ac 5.07% Impervious Runoff Depth=1.82"
Flow Length=1,401' Tc=32.5 min CN=75 Runoff=5.24 cfs 0.543 af

Subcatchment15: WS15 Runoff Area=37.339 ac 0.18% Impervious Runoff Depth=1.67"
Flow Length=6,278' Tc=92.0 min CN=73 Runoff=23.10 cfs 5.204 af

Subcatchment16: WS16 Runoff Area=0.416 ac 18.75% Impervious Runoff Depth=2.29"
Flow Length=267' Tc=11.9 min CN=81 Runoff=1.36 cfs 0.079 af

Subcatchment17: WS17 Runoff Area=7.386 ac 2.63% Impervious Runoff Depth=1.67"
Flow Length=2,290' Tc=37.1 min CN=73 Runoff=8.94 cfs 1.029 af

Subcatchment18: WS18 Runoff Area=1.599 ac 1.31% Impervious Runoff Depth=1.60"
Flow Length=978' Tc=26.1 min CN=72 Runoff=2.34 cfs 0.213 af

Subcatchment19: WS19 Runoff Area=7.975 ac 0.10% Impervious Runoff Depth=1.60"
Flow Length=2,264' Tc=47.0 min CN=72 Runoff=7.75 cfs 1.065 af

Subcatchment20: WS20 Runoff Area=40.004 ac 3.65% Impervious Runoff Depth=1.74"
Flow Length=4,364' Tc=55.5 min CN=74 Runoff=38.07 cfs 5.816 af

Subcatchment21: WS21 Runoff Area=6.228 ac 0.32% Impervious Runoff Depth=1.67"
Flow Length=1,797' Tc=39.9 min CN=73 Runoff=7.16 cfs 0.868 af

Subcatchment22: WS22 Runoff Area=7.516 ac 0.98% Impervious Runoff Depth=1.97"
Flow Length=2,111' Tc=47.3 min CN=77 Runoff=9.25 cfs 1.234 af

Subcatchment23: WS23 Runoff Area=2.642 ac 1.48% Impervious Runoff Depth=1.89"
Flow Length=1,122' Tc=28.3 min CN=76 Runoff=4.42 cfs 0.417 af

Subcatchment24: WS24 Runoff Area=10.169 ac 4.49% Impervious Runoff Depth=2.05"
Flow Length=2,477' Tc=51.1 min CN=78 Runoff=12.32 cfs 1.735 af

Reach 40R: stream Avg. Flow Depth=0.74' Max Vel=6.84 fps Inflow=34.11 cfs 5.805 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=34.02 cfs 5.805 af

Reach 42R: stream Avg. Flow Depth=0.71' Max Vel=8.38 fps Inflow=34.51 cfs 5.805 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=34.11 cfs 5.805 af

Reach 102R: stream Avg. Flow Depth=2.18' Max Vel=10.03 fps Inflow=310.06 cfs 48.273 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=309.01 cfs 48.273 af

Reach 103R: stream Avg. Flow Depth=1.20' Max Vel=8.23 fps Inflow=90.74 cfs 13.561 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=90.60 cfs 13.561 af

Reach 104R: stream Avg. Flow Depth=1.57' Max Vel=10.72 fps Inflow=161.35 cfs 24.047 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=161.00 cfs 24.047 af

Reach 108R: stream Avg. Flow Depth=1.01' Max Vel=10.01 fps Inflow=91.35 cfs 13.561 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=90.74 cfs 13.561 af

Reach 110R: stream Avg. Flow Depth=1.64' Max Vel=12.67 fps Inflow=158.87 cfs 22.334 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=158.28 cfs 22.334 af

Reach 111R: upperstream Avg. Flow Depth=1.04' Max Vel=10.04 fps Inflow=42.31 cfs 5.858 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=42.16 cfs 5.858 af

Reach 112R: stream Avg. Flow Depth=1.07' Max Vel=10.87 fps Inflow=70.83 cfs 10.304 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=70.58 cfs 10.304 af

Link SP1: Inflow=313.66 cfs 49.404 af
Primary=313.66 cfs 49.404 af

Link SP10: Inflow=2.00 cfs 0.129 af
Primary=2.00 cfs 0.129 af

Link SP11: Inflow=12.76 cfs 2.548 af
Primary=12.76 cfs 2.548 af

Link SP12: Inflow=13.63 cfs 1.478 af
Primary=13.63 cfs 1.478 af

Link SP13: Inflow=12.94 cfs 3.106 af
Primary=12.94 cfs 3.106 af

Link SP14: Inflow=5.24 cfs 0.543 af
Primary=5.24 cfs 0.543 af

Link SP15: Inflow=23.10 cfs 5.204 af
Primary=23.10 cfs 5.204 af

Link SP16: Inflow=1.36 cfs 0.079 af
Primary=1.36 cfs 0.079 af

Link SP17: Inflow=8.94 cfs 1.029 af
Primary=8.94 cfs 1.029 af

Link SP18: Inflow=2.34 cfs 0.213 af
Primary=2.34 cfs 0.213 af

Link SP19: Inflow=7.75 cfs 1.065 af
Primary=7.75 cfs 1.065 af

Link SP2: Inflow=6.24 cfs 0.792 af
Primary=6.24 cfs 0.792 af

Link SP20: Inflow=38.07 cfs 5.816 af
Primary=38.07 cfs 5.816 af

Link SP21: Inflow=7.16 cfs 0.868 af
Primary=7.16 cfs 0.868 af

Link SP22: Inflow=9.25 cfs 1.234 af
Primary=9.25 cfs 1.234 af

Link SP23: Inflow=4.42 cfs 0.417 af
Primary=4.42 cfs 0.417 af

Link SP24: Inflow=12.32 cfs 1.735 af
Primary=12.32 cfs 1.735 af

Link SP3: Inflow=3.60 cfs 0.258 af
Primary=3.60 cfs 0.258 af

Link SP4: Inflow=47.39 cfs 9.012 af
Primary=47.39 cfs 9.012 af

Link SP5: Inflow=4.74 cfs 0.501 af
Primary=4.74 cfs 0.501 af

Link SP6: Inflow=39.48 cfs 4.593 af
Primary=39.48 cfs 4.593 af

Link SP7: Inflow=30.05 cfs 4.188 af
Primary=30.05 cfs 4.188 af

Link SP8: Inflow=1.52 cfs 0.065 af
Primary=1.52 cfs 0.065 af

Link SP9: Inflow=8.69 cfs 1.230 af
Primary=8.69 cfs 1.230 af

Total Runoff Area = 629.192 ac Runoff Volume = 95.508 af Average Runoff Depth = 1.82"
96.98% Pervious = 610.171 ac 3.02% Impervious = 19.021 ac

Summary for Subcatchment 1: WS1

Runoff = 8.22 cfs @ 12.13 hrs, Volume= 0.626 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.019	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.765	77	Existing Woods, Good, HSG D
3.816	77	Weighted Average
3.797		99.50% Pervious Area
0.019		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.0	358	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	299	0.0600	9.68	232.28	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
20.2	1,200	Total			

Summary for Subcatchment 1A: WS1A

Runoff = 5.36 cfs @ 12.23 hrs, Volume= 0.505 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.011	78	Existing meadow, non-grazed, HSG D
3.065	77	Existing Woods, Good, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
28.5	821	Total			

Summary for Subcatchment 1B: WS1B

Runoff = 22.94 cfs @ 12.06 hrs, Volume= 1.445 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.425	98	Existing impervious, HSG D
0.427	78	Existing meadow, non-grazed, HSG D
7.619	77	Existing Woods, Good, HSG D
8.471	78	Weighted Average
8.046		94.98% Pervious Area
0.425		5.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.4	336	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	339	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	336	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	278	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	283	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	118	0.0800	13.91	41.73	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	164	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	83	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050 Mountain streams w/large boulders
14.1	2,480	Total			

Summary for Subcatchment 1C: WS1C

Runoff = 25.08 cfs @ 12.47 hrs, Volume= 3.312 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
3.281	98	Existing impervious, HSG D
3.704	78	Existing meadow, non-grazed, HSG D
10.364	77	Existing Woods, Good, HSG D
17.349	81	Weighted Average
14.068		81.09% Pervious Area
3.281		18.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	172	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	164	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.9	77	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	157	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.5	350	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.2	219	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	251	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	316	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.1	73	0.1900	21.44	64.31	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	300	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	179	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
10.2	342	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	236	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	199	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	224	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	360	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
47.4	3,667	Total			

Summary for Subcatchment 1CA: WS 1CA

Runoff = 30.52 cfs @ 12.01 hrs, Volume= 1.713 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
3.139	98	Existing impervious, HSG D
0.835	78	Existing meadow, non-grazed, HSG D
3.561	77	Existing Woods, Good, HSG D
7.535	86	Weighted Average
4.396		58.34% Pervious Area
3.139		41.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
3.0	89	0.0400	0.50		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	161	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	391	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
3.6	208	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.1	949	Total			

Summary for Subcatchment 1D: WS1D

Runoff = 94.45 cfs @ 12.43 hrs, Volume= 12.030 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
4.794	98	Existing impervious, HSG C
1.682	98	Existing impervious, HSG D
15.372	71	Existing meadow, non-grazed, HSG C
10.464	78	Existing meadow, non-grazed, HSG D
27.478	70	Existing Woods, Good, HSG C
19.608	77	Existing Woods, Good, HSG D
79.398	75	Weighted Average
72.922		91.84% Pervious Area
6.476		8.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.2300	0.27		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.9	388	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	312	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.8	440	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	123	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.6	266	0.1300	7.32		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.2	457	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.4	378	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	258	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.3	263	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
4.2	242	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	150	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	256	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	314	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	390	0.0500	8.83	212.04	**Trap/Vee/Rect Channel Flow,** Bot.W=10.00' D=2.00' Z= 1.0 '/' Top.W=14.00' n= 0.050 Mountain streams w/large boulders
0.8	505	0.0600	10.15	345.05	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00'

n= 0.050 Mountain streams w/large boulders

43.6 6,450 Total

Summary for Subcatchment 1E: WS1E

Runoff = 28.96 cfs @ 12.59 hrs, Volume= 4.446 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.328	98	Existing impervious, HSG C
0.082	98	Existing impervious, HSG D
3.846	71	Existing meadow, non-grazed, HSG C
4.272	78	Existing meadow, non-grazed, HSG D
17.223	70	Existing Woods, Good, HSG C
6.150	77	Existing Woods, Good, HSG D
31.901	73	Weighted Average
31.491		98.71% Pervious Area
0.410		1.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	113	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	154	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	191	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	146	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	137	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	204	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	134	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	286	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	261	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	341	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	423	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.9	196	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	223	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.2	189	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
55.4	4,125	Total			

Summary for Subcatchment 1F: WS1F

Runoff = 42.31 cfs @ 12.49 hrs, Volume= 5.858 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.002	98	Existing impervious, HSG C
0.362	98	Existing impervious, HSG D
4.817	71	Existing meadow, non-grazed, HSG C
9.293	78	Existing meadow, non-grazed, HSG D
15.585	70	Existing Woods, Good, HSG C
10.235	77	Existing Woods, Good, HSG D
40.294	74	Weighted Average
39.930		99.10% Pervious Area
0.364		0.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	144	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
48.6	4,191	Total			

Summary for Subcatchment 1G: WS 1G

Runoff = 45.13 cfs @ 12.31 hrs, Volume= 4.912 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.906	71	Existing meadow, non-grazed, HSG C
12.918	70	Existing Woods, Good, HSG C
0.004	98	Existing impervious, HSG D
3.805	78	Existing meadow, non-grazed, HSG D
16.155	77	Existing Woods, Good, HSG D
33.788	74	Weighted Average
33.784		99.99% Pervious Area
0.004		0.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.1200	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.3	182	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	443	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	118	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	458	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	564	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	366	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	162	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	449	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	450	0.2000	14.63	146.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	408	0.2100	14.99	149.94	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.7	554	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	391	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
34.6	4,645	Total			

Summary for Subcatchment 1H: WS 1H

Runoff = 56.38 cfs @ 12.60 hrs, Volume= 8.649 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
2.007	71	Existing meadow, non-grazed, HSG C
22.781	70	Existing Woods, Good, HSG C
4.416	78	Existing meadow, non-grazed, HSG D
30.287	77	Existing Woods, Good, HSG D
59.491	74	Weighted Average
59.491		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	59	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.5	105	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	330	0.3600	4.20		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.3	212	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	108	0.2400	3.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	346	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	190	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	320	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	411	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	281	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	255	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	223	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	601	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	147	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	403	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	348	0.1600	14.26	199.63	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
0.5	465	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
55.9	4,804	Total			

Summary for Subcatchment 1I: WS1I

Runoff = 23.77 cfs @ 12.27 hrs, Volume= 2.382 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.123	98	Existing impervious, HSG D
2.494	70	Existing Woods, Good, HSG C
12.485	77	Existing Woods, Good, HSG D
15.102	76	Weighted Average
14.979		99.19% Pervious Area
0.123		0.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	293	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	337	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	279	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	199	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	431	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	373	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	447	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.1	658	0.0900	9.82	98.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
31.2	3,069	Total			

Summary for Subcatchment 1J: WS1J

Runoff = 40.14 cfs @ 12.20 hrs, Volume= 3.525 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Existing impervious, HSG D
0.095	71	Existing meadow, non-grazed, HSG C
0.159	78	Existing meadow, non-grazed, HSG D
4.342	70	Existing Woods, Good, HSG C
17.520	77	Existing Woods, Good, HSG D
22.346	76	Weighted Average
22.116		98.97% Pervious Area
0.230		1.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.3	269	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	336	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	167	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	486	0.1300	15.28	641.91	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	546	0.1700	17.48	734.06	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	483	0.1200	14.68	616.73	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.5	426	0.1100	14.06	590.48	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
0.4	336	0.0900	12.72	534.11	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
25.4	3,101	Total			

Summary for Subcatchment 2: WS2

Runoff = 6.24 cfs @ 12.43 hrs, Volume= 0.792 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.070	98	Existing impervious, HSG D
0.750	78	Existing meadow, non-grazed, HSG D
4.005	77	Existing Woods, Good, HSG D
4.825	77	Weighted Average
4.755		98.55% Pervious Area
0.070		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	49	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	349	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	156	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	279	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	154	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	339	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.3	374	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	147	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
44.0	1,847	Total			

Summary for Subcatchment 3: WS3

Runoff = 3.60 cfs @ 12.11 hrs, Volume= 0.258 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.068	98	Existing impervious, HSG D
0.254	78	Existing meadow, non-grazed, HSG D
1.191	77	Existing Woods, Good, HSG D
1.513	78	Weighted Average
1.445		95.51% Pervious Area
0.068		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	60	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	97	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	169	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	319	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
18.2	681	Total			

Summary for Subcatchment 4: WS4

Runoff = 44.85 cfs @ 12.11 hrs, Volume= 3.206 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.287	98	Existing impervious, HSG D
0.739	71	Existing meadow, non-grazed, HSG C
1.095	78	Existing meadow, non-grazed, HSG D
2.883	70	Existing Woods, Good, HSG C
15.321	77	Existing Woods, Good, HSG D
20.325	76	Weighted Average
20.038		98.59% Pervious Area
0.287		1.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	56	0.2000	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.4	164	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	417	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	544	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	711	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	404	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	338	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	432	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	424	0.0800	9.25	92.55	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	249	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
18.0	3,739	Total			

Summary for Subcatchment 4A: WS4A

Runoff = 34.51 cfs @ 12.70 hrs, Volume= 5.805 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.521	71	Existing meadow, non-grazed, HSG C
4.362	78	Existing meadow, non-grazed, HSG D
12.444	70	Existing Woods, Good, HSG C
20.988	77	Existing Woods, Good, HSG D
38.315	75	Weighted Average
38.315		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	73	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.0	529	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	350	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	505	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.5	623	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	355	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	337	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.5	437	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	330	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	345	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	45	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
63.9	3,929	Total			

Summary for Subcatchment 5: WS5

Runoff = 4.74 cfs @ 12.30 hrs, Volume= 0.501 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.012	98	Existing impervious, HSG D
0.032	78	Existing meadow, non-grazed, HSG D
3.009	77	Existing Woods, Good, HSG D
3.053	77	Weighted Average
3.041		99.61% Pervious Area
0.012		0.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	35	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	169	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.7	271	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
33.9	1,271	Total			

Summary for Subcatchment 6: WS6

Runoff = 39.48 cfs @ 12.36 hrs, Volume= 4.593 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.537	71	Existing meadow, non-grazed, HSG C
3.855	70	Existing Woods, Good, HSG C
0.287	98	Existing impervious, HSG D
3.372	78	Existing meadow, non-grazed, HSG D
21.062	77	Existing Woods, Good, HSG D
29.113	76	Weighted Average
28.826		99.01% Pervious Area
0.287		0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	10	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	145	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.7	333	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.8	441	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.8	290	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	290	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.8	681	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	418	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	729	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.7	465	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
1.0	466	0.0600	8.01	80.15	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	85	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
38.7	4,403	Total			

Summary for Subcatchment 7: WS7

Runoff = 30.05 cfs @ 12.51 hrs, Volume= 4.188 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.688	71	Existing meadow, non-grazed, HSG C
5.100	70	Existing Woods, Good, HSG C
0.250	98	Existing impervious, HSG D
3.025	78	Existing meadow, non-grazed, HSG D
17.484	77	Existing Woods, Good, HSG D
26.547	76	Weighted Average
26.297		99.06% Pervious Area
0.250		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	64	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.0	312	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	360	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
12.6	565	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.0	406	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.9	185	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	324	0.3000	17.92	179.21	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	279	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	330	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	224	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	139	0.1200	11.33	113.34	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	287	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	361	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	417	0.1100	10.85	108.52	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.6	253	0.0500	7.32	73.16	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,**

Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00'
n= 0.022 Earth, clean & straight

49.7	4,636	Total

Summary for Subcatchment 8: WS8

Runoff = 1.52 cfs @ 11.91 hrs, Volume= 0.065 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.066	98	Existing impervious, HSG D
0.047	78	Existing meadow, non-grazed, HSG D
0.230	77	Existing Woods, Good, HSG D
0.343	81	Weighted Average
0.277		80.76% Pervious Area
0.066		19.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	40	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
1.4	327	Total			

Summary for Subcatchment 9: WS9

Runoff = 8.69 cfs @ 12.52 hrs, Volume= 1.230 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.078	71	Existing meadow, non-grazed, HSG C
2.614	70	Existing Woods, Good, HSG C
0.184	98	Existing impervious, HSG D
0.343	78	Existing meadow, non-grazed, HSG D
4.898	77	Existing Woods, Good, HSG D
8.117	75	Weighted Average
7.933		97.73% Pervious Area
0.184		2.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	27	0.0500	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
8.4	283	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	583	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.0	403	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	554	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	172	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	350	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	411	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
50.5	2,783	Total			

Summary for Subcatchment 10: WS10

Runoff = 2.00 cfs @ 12.07 hrs, Volume= 0.129 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.027	98	Existing impervious, HSG D
0.044	78	Existing meadow, non-grazed, HSG D
0.687	77	Existing Woods, Good, HSG D
0.758	78	Weighted Average
0.731		96.44% Pervious Area
0.027		3.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	70	0.3100	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	65	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	187	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
14.8	424	Total			

Summary for Subcatchment 11: WS11

Runoff = 12.76 cfs @ 12.93 hrs, Volume= 2.548 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.245	98	Existing impervious, HSG D
1.349	71	Existing meadow, non-grazed, HSG C
2.297	78	Existing meadow, non-grazed, HSG D
4.751	70	Existing Woods, Good, HSG C
8.173	77	Existing Woods, Good, HSG D
16.815	75	Weighted Average
16.570		98.54% Pervious Area
0.245		1.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	65	0.2700	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.7	366	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.1	527	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	398	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
17.0	763	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	211	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	377	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.2	506	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	368	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	220	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	401	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	200	0.0900	22.31	223.09	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
80.4	4,402	Total			

Summary for Subcatchment 12: WS12

Runoff = 13.63 cfs @ 12.31 hrs, Volume= 1.478 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.280	71	Existing meadow, non-grazed, HSG C
3.976	70	Existing Woods, Good, HSG C
0.220	98	Existing impervious, HSG D
1.035	78	Existing meadow, non-grazed, HSG D
4.244	77	Existing Woods, Good, HSG D
9.755	75	Weighted Average
9.535		97.74% Pervious Area
0.220		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.4	320	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.0	562	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	281	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	261	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	284	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.4	261	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
34.7	2,300	Total			

Summary for Subcatchment 13: WS13

Runoff = 12.94 cfs @ 13.24 hrs, Volume= 3.106 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
4.203	71	Existing meadow, non-grazed, HSG C
9.072	70	Existing Woods, Good, HSG C
0.235	98	Existing impervious, HSG D
1.694	78	Existing meadow, non-grazed, HSG D
7.081	77	Existing Woods, Good, HSG D
22.285	73	Weighted Average
22.050		98.95% Pervious Area
0.235		1.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	76	0.3700	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.9	537	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	448	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	645	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	497	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.2	536	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.2	434	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	714	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.2	649	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.9	645	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	307	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	328	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	199	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
100.4	6,015	Total			

Summary for Subcatchment 14: WS14

Runoff = 5.24 cfs @ 12.28 hrs, Volume= 0.543 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.691	71	Existing meadow, non-grazed, HSG C
0.959	70	Existing Woods, Good, HSG C
0.182	98	Existing impervious, HSG D
0.231	78	Existing meadow, non-grazed, HSG D
1.524	77	Existing Woods, Good, HSG D
3.587	75	Weighted Average
3.405		94.93% Pervious Area
0.182		5.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	45	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.1	8	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	350	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	313	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	294	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	168	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	163	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	60	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
32.5	1,401	Total			

Summary for Subcatchment 15: WS15

Runoff = 23.10 cfs @ 13.10 hrs, Volume= 5.204 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
8.870	71	Existing meadow, non-grazed, HSG C
16.898	70	Existing Woods, Good, HSG C
0.067	98	Existing impervious, HSG D
2.332	78	Existing meadow, non-grazed, HSG D
9.172	77	Existing Woods, Good, HSG D
37.339	73	Weighted Average
37.272		99.82% Pervious Area
0.067		0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	72	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
6.8	586	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.9	673	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
9.6	625	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	664	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	484	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.7	700	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.6	529	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
11.6	717	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	573	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.5	386	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
92.0	6,278	Total			

Summary for Subcatchment 16: WS16

Runoff = 1.36 cfs @ 12.04 hrs, Volume= 0.079 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.078	98	Existing impervious, HSG D
0.048	78	Existing meadow, non-grazed, HSG D
0.290	77	Existing Woods, Good, HSG D
0.416	81	Weighted Average
0.338		81.25% Pervious Area
0.078		18.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	63	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	153	0.0700	13.01	39.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
11.9	267	Total			

Summary for Subcatchment 17: WS17

Runoff = 8.94 cfs @ 12.35 hrs, Volume= 1.029 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.194	98	Existing impervious, HSG D
1.145	71	Existing meadow, non-grazed, HSG C
0.402	78	Existing meadow, non-grazed, HSG D
3.907	70	Existing Woods, Good, HSG C
1.738	77	Existing Woods, Good, HSG D
7.386	73	Weighted Average
7.192		97.37% Pervious Area
0.194		2.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	44	0.1300	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
9.8	531	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	236	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	372	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	290	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	437	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	142	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	238	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
37.1	2,290	Total			

Summary for Subcatchment 18: WS18

Runoff = 2.34 cfs @ 12.21 hrs, Volume= 0.213 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.172	71	Existing meadow, non-grazed, HSG C
1.110	70	Existing Woods, Good, HSG C
0.021	98	Existing impervious, HSG D
0.028	78	Existing meadow, non-grazed, HSG D
0.268	77	Existing Woods, Good, HSG D
1.599	72	Weighted Average
1.578		98.69% Pervious Area
0.021		1.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	57	0.2100	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.0	68	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	218	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	281	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	258	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	96	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
26.1	978	Total			

Summary for Subcatchment 19: WS19

Runoff = 7.75 cfs @ 12.48 hrs, Volume= 1.065 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.008	98	Existing impervious, HSG D
0.954	71	Existing meadow, non-grazed, HSG C
0.384	78	Existing meadow, non-grazed, HSG D
4.939	70	Existing Woods, Good, HSG C
1.690	77	Existing Woods, Good, HSG D
7.975	72	Weighted Average
7.967		99.90% Pervious Area
0.008		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	41	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.3	262	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.3	422	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	501	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	213	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	258	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.7	465	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.0	2,264	Total			

Summary for Subcatchment 20: WS20

Runoff = 38.07 cfs @ 12.59 hrs, Volume= 5.816 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
1.023	98	Existing impervious, HSG C
0.436	98	Existing impervious, HSG D
6.987	71	Existing meadow, non-grazed, HSG C
6.713	78	Existing meadow, non-grazed, HSG D
16.006	70	Existing Woods, Good, HSG C
8.839	77	Existing Woods, Good, HSG D
40.004	74	Weighted Average
38.545		96.35% Pervious Area
1.459		3.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.9	242	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	278	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	258	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	134	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	77	0.2600	3.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	165	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.4	177	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	237	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	232	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	544	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.4	332	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	188	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	252	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	298	0.1400	12.24	122.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.2	200	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	229	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	227	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
0.3	242	0.1300	11.80	117.97	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
55.5	4,364	Total			

Summary for Subcatchment 21: WS21

Runoff = 7.16 cfs @ 12.38 hrs, Volume= 0.868 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.020	98	Existing impervious, HSG D
0.181	71	Existing meadow, non-grazed, HSG C
0.412	78	Existing meadow, non-grazed, HSG D
3.099	70	Existing Woods, Good, HSG C
2.516	77	Existing Woods, Good, HSG D
6.228	73	Weighted Average
6.208		99.68% Pervious Area
0.020		0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	356	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	262	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	150	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	364	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	189	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	194	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	69	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
39.9	1,797	Total			

Summary for Subcatchment 22: WS22

Runoff = 9.25 cfs @ 12.47 hrs, Volume= 1.234 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.074	98	Existing impervious, HSG D
0.307	71	Existing meadow, non-grazed, HSG C
2.930	78	Existing meadow, non-grazed, HSG D
0.876	70	Existing Woods, Good, HSG C
3.329	77	Existing Woods, Good, HSG D
7.516	77	Weighted Average
7.442		99.02% Pervious Area
0.074		0.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.8	290	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.3	266	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	395	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.2	315	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.4	382	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.5	377	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	44	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
47.3	2,111	Total			

Summary for Subcatchment 23: WS23

Runoff = 4.42 cfs @ 12.23 hrs, Volume= 0.417 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.039	98	Existing impervious, HSG D
0.363	71	Existing meadow, non-grazed, HSG C
0.449	78	Existing meadow, non-grazed, HSG D
0.148	70	Existing Woods, Good, HSG C
1.643	77	Existing Woods, Good, HSG D
2.642	76	Weighted Average
2.603		98.52% Pervious Area
0.039		1.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.1600	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.5	212	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	247	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	267	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.0	280	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	66	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
28.3	1,122	Total			

Summary for Subcatchment 24: WS24

Runoff = 12.32 cfs @ 12.52 hrs, Volume= 1.735 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.457	98	Existing impervious, HSG D
0.399	71	Existing meadow, non-grazed, HSG C
3.359	78	Existing meadow, non-grazed, HSG D
0.012	70	Existing Woods, Good, HSG C
5.942	77	Existing Woods, Good, HSG D
10.169	78	Weighted Average
9.712		95.51% Pervious Area
0.457		4.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
11.8	613	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.9	420	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	139	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	108	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	227	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	240	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	201	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	225	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	242	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.0	19	0.2100	12.09	36.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
51.1	2,477	Total			

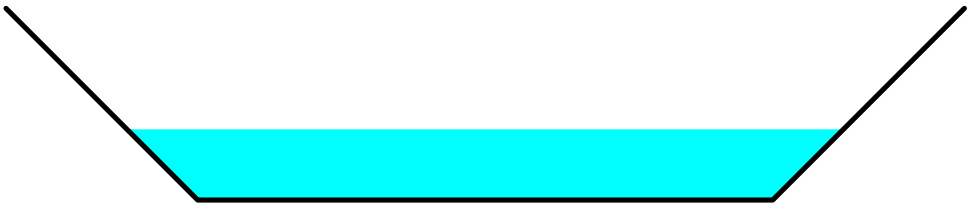
Summary for Reach 40R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 34.11 cfs @ 12.83 hrs, Volume= 5.805 af
Outflow = 34.02 cfs @ 12.89 hrs, Volume= 5.805 af, Atten= 0%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.84 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.99 fps, Avg. Travel Time= 6.5 min

Peak Storage= 3,834 cf @ 12.86 hrs
Average Depth at Peak Storage= 0.74' , Surface Width= 7.48'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'



Summary for Reach 42R: stream

Inflow Area = 38.315 ac, 0.00% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 34.51 cfs @ 12.70 hrs, Volume= 5.805 af
Outflow = 34.11 cfs @ 12.83 hrs, Volume= 5.805 af, Atten= 1%, Lag= 8.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.38 fps, Min. Travel Time= 4.9 min
Avg. Velocity = 2.34 fps, Avg. Travel Time= 17.4 min

Peak Storage= 9,952 cf @ 12.75 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 6.43'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 102R: stream

Inflow Area = 315.675 ac, 4.58% Impervious, Inflow Depth = 1.84" for 25-Year event
Inflow = 310.06 cfs @ 12.51 hrs, Volume= 48.273 af
Outflow = 309.01 cfs @ 12.55 hrs, Volume= 48.273 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.03 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 2.78 fps, Avg. Travel Time= 5.3 min

Peak Storage= 27,469 cf @ 12.53 hrs
Average Depth at Peak Storage= 2.18' , Surface Width= 16.35'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 90.74 cfs @ 12.53 hrs, Volume= 13.561 af
Outflow = 90.60 cfs @ 12.55 hrs, Volume= 13.561 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.23 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 1.8 min

Peak Storage= 3,033 cf @ 12.54 hrs
Average Depth at Peak Storage= 1.20' , Surface Width= 10.40'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 159.128 ac, 6.53% Impervious, Inflow Depth = 1.81" for 25-Year event
Inflow = 161.35 cfs @ 12.54 hrs, Volume= 24.047 af
Outflow = 161.00 cfs @ 12.57 hrs, Volume= 24.047 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.72 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 3.11 fps, Avg. Travel Time= 2.7 min

Peak Storage= 7,449 cf @ 12.55 hrs
Average Depth at Peak Storage= 1.57' , Surface Width= 11.14'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

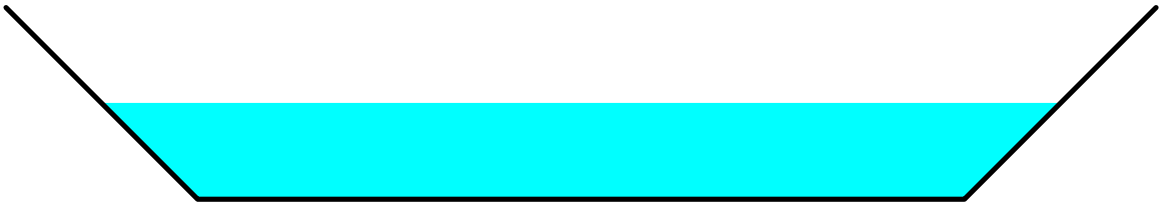
Summary for Reach 108R: stream

Inflow Area = 93.279 ac, 0.00% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 91.35 cfs @ 12.44 hrs, Volume= 13.561 af
Outflow = 90.74 cfs @ 12.53 hrs, Volume= 13.561 af, Atten= 1%, Lag= 5.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.01 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 3.02 fps, Avg. Travel Time= 10.9 min

Peak Storage= 17,842 cf @ 12.48 hrs
Average Depth at Peak Storage= 1.01' , Surface Width= 10.01'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'



Summary for Reach 110R: stream

Inflow Area = 151.593 ac, 4.78% Impervious, Inflow Depth = 1.77" for 25-Year event
Inflow = 158.87 cfs @ 12.50 hrs, Volume= 22.334 af
Outflow = 158.28 cfs @ 12.55 hrs, Volume= 22.334 af, Atten= 0%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 12.67 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 4.19 fps, Avg. Travel Time= 4.7 min

Peak Storage= 14,714 cf @ 12.52 hrs
Average Depth at Peak Storage= 1.64' , Surface Width= 9.28'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 40.294 ac, 0.90% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 42.31 cfs @ 12.49 hrs, Volume= 5.858 af
Outflow = 42.16 cfs @ 12.53 hrs, Volume= 5.858 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.04 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 3.70 fps, Avg. Travel Time= 3.1 min

Peak Storage= 2,890 cf @ 12.51 hrs
Average Depth at Peak Storage= 1.04' , Surface Width= 5.08'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 72.195 ac, 1.07% Impervious, Inflow Depth = 1.71" for 25-Year event
Inflow = 70.83 cfs @ 12.55 hrs, Volume= 10.304 af
Outflow = 70.58 cfs @ 12.61 hrs, Volume= 10.304 af, Atten= 0%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.87 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 3.67 fps, Avg. Travel Time= 5.6 min

Peak Storage= 8,003 cf @ 12.57 hrs
Average Depth at Peak Storage= 1.07' , Surface Width= 7.14'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Link SP1:

Inflow Area = 322.567 ac, 4.49% Impervious, Inflow Depth = 1.84" for 25-Year event
Inflow = 313.66 cfs @ 12.55 hrs, Volume= 49.404 af
Primary = 313.66 cfs @ 12.55 hrs, Volume= 49.404 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Inflow Area = 0.758 ac, 3.56% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 2.00 cfs @ 12.07 hrs, Volume= 0.129 af
Primary = 2.00 cfs @ 12.07 hrs, Volume= 0.129 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 16.815 ac, 1.46% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 12.76 cfs @ 12.93 hrs, Volume= 2.548 af
Primary = 12.76 cfs @ 12.93 hrs, Volume= 2.548 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 9.755 ac, 2.26% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 13.63 cfs @ 12.31 hrs, Volume= 1.478 af
Primary = 13.63 cfs @ 12.31 hrs, Volume= 1.478 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 22.285 ac, 1.05% Impervious, Inflow Depth = 1.67" for 25-Year event
Inflow = 12.94 cfs @ 13.24 hrs, Volume= 3.106 af
Primary = 12.94 cfs @ 13.24 hrs, Volume= 3.106 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP14:

Inflow Area = 3.587 ac, 5.07% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 5.24 cfs @ 12.28 hrs, Volume= 0.543 af
Primary = 5.24 cfs @ 12.28 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 37.339 ac, 0.18% Impervious, Inflow Depth = 1.67" for 25-Year event
Inflow = 23.10 cfs @ 13.10 hrs, Volume= 5.204 af
Primary = 23.10 cfs @ 13.10 hrs, Volume= 5.204 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 0.416 ac, 18.75% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 1.36 cfs @ 12.04 hrs, Volume= 0.079 af
Primary = 1.36 cfs @ 12.04 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 7.386 ac, 2.63% Impervious, Inflow Depth = 1.67" for 25-Year event
Inflow = 8.94 cfs @ 12.35 hrs, Volume= 1.029 af
Primary = 8.94 cfs @ 12.35 hrs, Volume= 1.029 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 1.599 ac, 1.31% Impervious, Inflow Depth = 1.60" for 25-Year event
Inflow = 2.34 cfs @ 12.21 hrs, Volume= 0.213 af
Primary = 2.34 cfs @ 12.21 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 7.975 ac, 0.10% Impervious, Inflow Depth = 1.60" for 25-Year event
Inflow = 7.75 cfs @ 12.48 hrs, Volume= 1.065 af
Primary = 7.75 cfs @ 12.48 hrs, Volume= 1.065 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 4.825 ac, 1.45% Impervious, Inflow Depth = 1.97" for 25-Year event
Inflow = 6.24 cfs @ 12.43 hrs, Volume= 0.792 af
Primary = 6.24 cfs @ 12.43 hrs, Volume= 0.792 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 40.004 ac, 3.65% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 38.07 cfs @ 12.59 hrs, Volume= 5.816 af
Primary = 38.07 cfs @ 12.59 hrs, Volume= 5.816 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 6.228 ac, 0.32% Impervious, Inflow Depth = 1.67" for 25-Year event
Inflow = 7.16 cfs @ 12.38 hrs, Volume= 0.868 af
Primary = 7.16 cfs @ 12.38 hrs, Volume= 0.868 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 7.516 ac, 0.98% Impervious, Inflow Depth = 1.97" for 25-Year event
Inflow = 9.25 cfs @ 12.47 hrs, Volume= 1.234 af
Primary = 9.25 cfs @ 12.47 hrs, Volume= 1.234 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 2.642 ac, 1.48% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 4.42 cfs @ 12.23 hrs, Volume= 0.417 af
Primary = 4.42 cfs @ 12.23 hrs, Volume= 0.417 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 10.169 ac, 4.49% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 12.32 cfs @ 12.52 hrs, Volume= 1.735 af
Primary = 12.32 cfs @ 12.52 hrs, Volume= 1.735 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 1.513 ac, 4.49% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 3.60 cfs @ 12.11 hrs, Volume= 0.258 af
Primary = 3.60 cfs @ 12.11 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 58.640 ac, 0.49% Impervious, Inflow Depth = 1.84" for 25-Year event
Inflow = 47.39 cfs @ 12.11 hrs, Volume= 9.012 af
Primary = 47.39 cfs @ 12.11 hrs, Volume= 9.012 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 3.053 ac, 0.39% Impervious, Inflow Depth = 1.97" for 25-Year event
Inflow = 4.74 cfs @ 12.30 hrs, Volume= 0.501 af
Primary = 4.74 cfs @ 12.30 hrs, Volume= 0.501 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 29.113 ac, 0.99% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 39.48 cfs @ 12.36 hrs, Volume= 4.593 af
Primary = 39.48 cfs @ 12.36 hrs, Volume= 4.593 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 26.547 ac, 0.94% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 30.05 cfs @ 12.51 hrs, Volume= 4.188 af
Primary = 30.05 cfs @ 12.51 hrs, Volume= 4.188 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.343 ac, 19.24% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 1.52 cfs @ 11.91 hrs, Volume= 0.065 af
Primary = 1.52 cfs @ 11.91 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 8.117 ac, 2.27% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 8.69 cfs @ 12.52 hrs, Volume= 1.230 af
Primary = 8.69 cfs @ 12.52 hrs, Volume= 1.230 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

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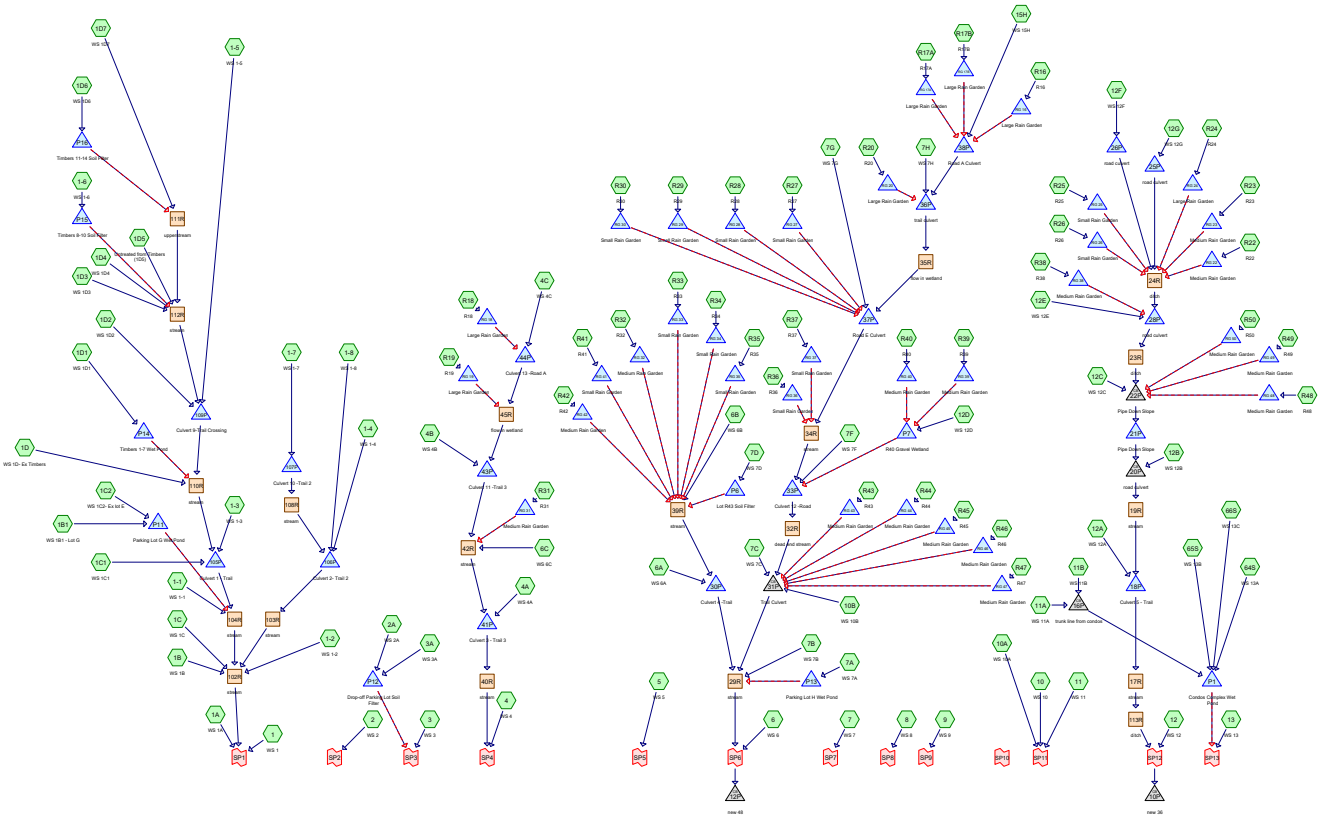

Subcat Reach Pond Link

Routing Diagram for 55310.01-West Mountain-PR1
Prepared by VHB, Printed 4/29/2022
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.00	2
2	2-Year	Type II 24-hr		Default	24.00	1	2.40	2
3	10-Year	Type II 24-hr		Default	24.00	1	3.40	2
4	25-Year	Type II 24-hr		Default	24.00	1	4.20	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
85.980	70	Existing Woods, Good, HSG C (1-4, 1-5, 1-6, 1-7, 1-8, 1D, 1D1, 1D2, 1D3, 1D4, 1D5, 1D7, 4A, 4B, 4C, 6A, 7C, 7H, 10B, 12B, 12C, 12D, 12E, 12G, 15H, 65S)
145.165	77	Existing Woods, Good, HSG D (1, 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1A, 1B, 1B1, 1C, 1C1, 1C2, 1D, 1D1, 1D2, 1D4, 1D5, 1D7, 2, 2A, 3, 3A, 4, 4A, 4B, 4C, 5, 6, 6A, 6B, 6C, 7, 7A, 7B, 7C, 7D, 7F, 7G, 7H, 8, 9, 10, 10B, 11, 12, 12A, 12D, 12E, 12F, 12G, 13, 15H, 64S, 65S)
3.235	98	Existing impervious to be treated as offset, HSG D (1C2, 7A)
23.370	71	Existing meadow, non-grazed, HSG C (1-5, 1D, 1D1, 1D2, 1D3, 1D4, 1D7, 4A, 4C, 6A, 7H, 10B, 12C, 12D, 12E, 12G, 15H)
30.929	78	Existing meadow, non-grazed, HSG D (1-5, 1-8, 1B, 1C1, 1C2, 1D, 1D1, 1D4, 1D5, 1D7, 4A, 4B, 4C, 6A, 6B, 6C, 7D, 7F, 7G, 12D, 12E, 12F, 12G, 15H)
13.680	70	Proposed Woods, Good, HSG C (1-4, 1-5, 1-7, 1-8, 1D2, 1D7, 4C, 6A, 7C, 7G, 7H, 10A, 10B, 12C, 12F, 12G, 15H)
20.871	77	Proposed Woods, Good, HSG D (1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-8, 1B1, 1C, 1C1, 1C2, 1D, 1D2, 1D7, 3A, 4, 4A, 4B, 4C, 5, 6, 6A, 6B, 6C, 7B, 7C, 7G, 7H, 10, 10A, 11, 12, 12F, 12G, 15H, 64S)
11.037	71	Proposed developed meadow to be treated, HSG C (1-6, 1D6, 10B, 11B, 12D, 65S, 66S, R16, R17A, R17B, R18, R19, R20, R24, R32, R33, R39, R40, R43, R44, R45, R46, R47, R48, R49, R50)
16.994	78	Proposed developed meadow to be treated, HSG D (1-6, 1B1, 1D6, 2, 2A, 7A, 7D, 7G, 10B, 11A, 11B, 12D, 64S, 65S, R17A, R17B, R18, R19, R20, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45)
12.251	71	Proposed developed meadow, non-grazed, HSG C (1-5, 1-8, 1D, 1D1, 1D2, 1D3, 1D4, 1D5, 1D7, 4B, 4C, 7C, 7F, 7H, 10A, 10B, 12A, 12B, 12C, 12E, 12G, 15H)
12.556	78	Proposed developed meadow, non-grazed, HSG D (1, 1-2, 1B, 1C, 1C1, 1D, 1D1, 1D4, 1D5, 1D7, 2, 3, 3A, 4A, 4C, 6, 6A, 7, 7B, 7C, 7F, 7G, 7H, 8, 9, 10, 10A, 10B, 11, 12, 12A, 12E, 12F, 12G, 13, 15H)
7.996	98	Proposed impervious to be treated, HSG C (1-6, 1D1, 1D6, 11B, 12D, 65S, 66S, R16, R17A, R17B, R18, R19, R20, R24, R32, R33, R39, R40, R43, R44, R45, R46, R47, R48, R49, R50)
10.080	98	Proposed impervious to be treated, HSG D (1-6, 1B1, 1D1, 1D6, 2A, 3A, 7A, 7D, 11A, 11B, 12D, 65S, R17A, R17B, R18, R19, R20, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45)
2.571	71	Proposed meadow, ski lift, HSG C (1-4, 1-8)
3.182	78	Proposed meadow, ski lift, HSG D (1-4, 1-8)
37.456	71	Proposed meadow, ski trail, HSG C (1-4, 1-5, 1-6, 1-7, 1-8, 1D1, 1D2, 1D5, 1D7, 4B, 4C, 6A, 7G, 7H, 10A, 10B, 12B, 12F, 12G, 15H)
64.183	78	Proposed meadow, ski trail, HSG D (1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-8, 1B1, 1C, 1C1, 1D, 1D2, 1D7, 3A, 4, 4A, 4C, 5, 6, 6A, 6C, 7B, 7C, 7G, 10, 10A, 11, 12, 12F, 12G, 15H, 64S)

Area Listing (all nodes) (continued)

Area (acres)	CN	Description (subcatchment-numbers)
4.775	98	Untreated existing impervious, HSG C (1-5, 1D, 1D1, 1D3, 1D4)
6.553	98	Untreated existing impervious, HSG D (1, 1-5, 1-8, 1B, 1C1, 1D, 1D1, 1D4, 2, 2A, 3, 3A, 4, 4A, 5, 6, 6A, 7, 7C, 8, 9, 11, 12, 13)
0.800	98	Untreated proposed impervious, HSG C (1-5, 1D, 1D2, 1D3, 1D4, 1D5, 1D7, 4B, 4C, 7F, 7H, 12A, 12B, 15H)
2.150	98	Untreated proposed impervious, HSG D (1-2, 1-4, 1-7, 1-8, 1B, 1D, 1D4, 1D5, 1D7, 3A, 4A, 6A, 7F, 7G, 10A, 10B, 12A, 12B, 12F, 12G)
515.814	**76**	**TOTAL AREA**

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS 1 Runoff Area=3.567 ac 0.53% Impervious Runoff Depth=0.45"
Flow Length=1,065' Tc=51.7 min CN=77 Runoff=0.77 cfs 0.133 af

Subcatchment1-1: WS 1-1 Runoff Area=1.814 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=593' Tc=27.3 min CN=77 Runoff=0.62 cfs 0.068 af

Subcatchment1-2: WS 1-2 Runoff Area=2.282 ac 0.09% Impervious Runoff Depth=0.48"
Flow Length=674' Tc=12.0 min CN=78 Runoff=1.44 cfs 0.092 af

Subcatchment1-3: WS 1-3 Runoff Area=8.349 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,281' Tc=30.5 min CN=77 Runoff=2.65 cfs 0.312 af

Subcatchment1-4: WS 1-4 Runoff Area=24.316 ac 0.36% Impervious Runoff Depth=0.41"
Flow Length=2,809' Tc=31.6 min CN=76 Runoff=6.69 cfs 0.838 af

Subcatchment1-5: WS 1-5 Runoff Area=61.115 ac 0.78% Impervious Runoff Depth=0.32"
Flow Length=6,226' Tc=61.0 min CN=73 Runoff=7.15 cfs 1.631 af

Subcatchment1-6: WS 1-6 Runoff Area=1.209 ac 42.76% Impervious Runoff Depth=0.74"
Flow Length=409' Tc=1.5 min CN=84 Runoff=1.75 cfs 0.075 af

Subcatchment1-7: WS 1-7 Runoff Area=31.149 ac 0.22% Impervious Runoff Depth=0.35"
Flow Length=4,331' Tc=43.2 min CN=74 Runoff=5.32 cfs 0.908 af

Subcatchment1-8: WS 1-8 Runoff Area=63.400 ac 0.07% Impervious Runoff Depth=0.38"
Flow Length=4,770' Tc=52.2 min CN=75 Runoff=10.76 cfs 2.013 af

Subcatchment1A: WS 1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=821' Tc=28.5 min CN=77 Runoff=1.02 cfs 0.115 af

Subcatchment1B: WS 1B Runoff Area=6.578 ac 7.74% Impervious Runoff Depth=0.52"
Flow Length=2,480' Tc=16.6 min CN=79 Runoff=3.84 cfs 0.286 af

Subcatchment1B1: WS 1B1 - Lot G Runoff Area=2.385 ac 32.08% Impervious Runoff Depth=0.74"
Flow Length=485' Tc=2.2 min CN=84 Runoff=3.48 cfs 0.148 af

Subcatchment1C: WS 1C Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,014' Tc=22.9 min CN=77 Runoff=1.12 cfs 0.109 af

Subcatchment1C1: WS 1C1 Runoff Area=15.551 ac 21.11% Impervious Runoff Depth=0.65"
Flow Length=2,648' Tc=18.9 min CN=82 Runoff=10.92 cfs 0.841 af

Subcatchment1C2: WS 1C2- Ex lot E Runoff Area=5.919 ac 52.98% Impervious Runoff Depth=0.97"
Flow Length=886' Tc=5.2 min CN=88 Runoff=10.19 cfs 0.476 af

Subcatchment1D: WS 1D- Ex Timbers Runoff Area=61.650 ac 9.88% Impervious Runoff Depth=0.41"
Flow Length=4,707' Tc=53.2 min CN=76 Runoff=11.63 cfs 2.125 af

Subcatchment1D1: WS 1D1 Runoff Area=7.555 ac 24.78% Impervious Runoff Depth=0.52"
Flow Length=1,421' Tc=2.4 min CN=79 Runoff=7.60 cfs 0.329 af

Subcatchment1D2: WS 1D2 Runoff Area=4.819 ac 0.17% Impervious Runoff Depth=0.29"
Flow Length=1,223' Tc=13.4 min CN=72 Runoff=1.38 cfs 0.117 af

Subcatchment1D3: WS 1D3 Runoff Area=2.624 ac 12.54% Impervious Runoff Depth=0.35"
Flow Length=731' Tc=7.2 min CN=74 Runoff=1.33 cfs 0.076 af

Subcatchment1D4: WS 1D4 Runoff Area=2.071 ac 15.79% Impervious Runoff Depth=0.41"
Flow Length=1,306' Tc=6.2 min CN=76 Runoff=1.37 cfs 0.071 af

Subcatchment1D5: Untreated from Runoff Area=2.466 ac 16.50% Impervious Runoff Depth=0.56"
Flow Length=924' Tc=2.8 min CN=80 Runoff=2.67 cfs 0.116 af

Subcatchment1D6: WS 1D6 Runoff Area=1.829 ac 34.99% Impervious Runoff Depth=0.80"
Flow Length=465' Tc=5.4 min CN=85 Runoff=2.57 cfs 0.121 af

Subcatchment1D7: WS 1D7 Runoff Area=11.787 ac 0.37% Impervious Runoff Depth=0.35"
Flow Length=2,532' Tc=42.2 min CN=74 Runoff=2.05 cfs 0.344 af

Subcatchment2: WS 2 Runoff Area=1.275 ac 5.49% Impervious Runoff Depth=0.48"
Flow Length=582' Tc=22.5 min CN=78 Runoff=0.55 cfs 0.051 af

Subcatchment2A: WS 2A Runoff Area=2.084 ac 44.15% Impervious Runoff Depth=0.91"
Flow Length=557' Tc=2.8 min CN=87 Runoff=3.67 cfs 0.157 af

Subcatchment3: WS 3 Runoff Area=0.172 ac 21.51% Impervious Runoff Depth=0.65"
Flow Length=189' Tc=14.2 min CN=82 Runoff=0.14 cfs 0.009 af

Subcatchment3A: WS 3A Runoff Area=1.985 ac 5.49% Impervious Runoff Depth=0.52"
Flow Length=928' Tc=29.5 min CN=79 Runoff=0.80 cfs 0.086 af

Subcatchment4: WS 4 Runoff Area=4.363 ac 0.21% Impervious Runoff Depth=0.45"
Flow Length=905' Tc=13.2 min CN=77 Runoff=2.36 cfs 0.163 af

Subcatchment4A: WS 4A Runoff Area=20.801 ac 1.45% Impervious Runoff Depth=0.41"
Flow Length=2,842' Tc=12.1 min CN=76 Runoff=10.62 cfs 0.717 af

Subcatchment4B: WS 4B Runoff Area=6.365 ac 1.02% Impervious Runoff Depth=0.41"
Flow Length=1,142' Tc=13.4 min CN=76 Runoff=3.05 cfs 0.219 af

Subcatchment4C: WS 4C Runoff Area=25.551 ac 0.15% Impervious Runoff Depth=0.38"
Flow Length=3,294' Tc=38.4 min CN=75 Runoff=5.41 cfs 0.811 af

Subcatchment5: WS 5 Runoff Area=2.355 ac 0.51% Impervious Runoff Depth=0.45"
Flow Length=887' Tc=26.8 min CN=77 Runoff=0.82 cfs 0.088 af

Subcatchment6: WS 6 Runoff Area=6.257 ac 0.66% Impervious Runoff Depth=0.45"
Flow Length=1,268' Tc=15.1 min CN=77 Runoff=3.15 cfs 0.234 af

Subcatchment6A: WS 6A Runoff Area=12.004 ac 1.64% Impervious Runoff Depth=0.41"
Flow Length=2,029' Tc=25.5 min CN=76 Runoff=3.84 cfs 0.414 af

Subcatchment6B: WS 6B Runoff Area=2.722 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=449' Tc=14.8 min CN=77 Runoff=1.38 cfs 0.102 af

Subcatchment6C: WS 6C Runoff Area=2.387 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=593' Tc=31.4 min CN=77 Runoff=0.74 cfs 0.089 af

Subcatchment7: WS 7 Runoff Area=0.872 ac 6.42% Impervious Runoff Depth=0.48"
Flow Length=518' Tc=13.0 min CN=78 Runoff=0.53 cfs 0.035 af

Subcatchment7A: WS 7A Runoff Area=2.921 ac 40.05% Impervious Runoff Depth=0.85"
Flow Length=446' Tc=2.4 min CN=86 Runoff=4.85 cfs 0.207 af

Subcatchment7B: WS 7B Runoff Area=0.886 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=334' Tc=5.9 min CN=78 Runoff=0.72 cfs 0.036 af

Subcatchment7C: WS 7C Runoff Area=5.244 ac 0.74% Impervious Runoff Depth=0.38"
Flow Length=929' Tc=18.3 min CN=75 Runoff=1.86 cfs 0.166 af

Subcatchment7D: WS 7D Runoff Area=1.624 ac 6.59% Impervious Runoff Depth=0.52"
Flow Length=535' Tc=14.2 min CN=79 Runoff=1.03 cfs 0.071 af

Subcatchment7F: WS 7F Runoff Area=2.020 ac 5.15% Impervious Runoff Depth=0.48"
Flow Length=443' Tc=13.2 min CN=78 Runoff=1.21 cfs 0.082 af

Subcatchment7G: WS 7G Runoff Area=2.700 ac 8.89% Impervious Runoff Depth=0.52"
Flow Length=926' Tc=36.7 min CN=79 Runoff=0.93 cfs 0.118 af

Subcatchment7H: WS 7H Runoff Area=1.781 ac 5.61% Impervious Runoff Depth=0.35"
Flow Length=559' Tc=7.7 min CN=74 Runoff=0.88 cfs 0.052 af

Subcatchment8: WS 8 Runoff Area=0.344 ac 19.19% Impervious Runoff Depth=0.60"
Flow Length=327' Tc=11.5 min CN=81 Runoff=0.29 cfs 0.017 af

Subcatchment9: WS 9 Runoff Area=0.148 ac 24.32% Impervious Runoff Depth=0.65"
Flow Length=211' Slope=0.0900 '/' Tc=11.1 min CN=82 Runoff=0.14 cfs 0.008 af

Subcatchment10: WS 10 Runoff Area=1.228 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=307' Tc=7.6 min CN=78 Runoff=0.93 cfs 0.050 af

Subcatchment10A: WS 10A Runoff Area=2.911 ac 6.32% Impervious Runoff Depth=0.48"
Flow Length=580' Tc=21.0 min CN=78 Runoff=1.33 cfs 0.118 af

Subcatchment10B: WS 10B Runoff Area=3.805 ac 0.11% Impervious Runoff Depth=0.29"
Flow Length=685' Tc=13.4 min CN=72 Runoff=1.09 cfs 0.093 af

Subcatchment11: WS 11 Runoff Area=2.440 ac 2.09% Impervious Runoff Depth=0.48"
Flow Length=580' Tc=22.3 min CN=78 Runoff=1.07 cfs 0.098 af

Subcatchment11A: WS 11A Runoff Area=2.606 ac 65.23% Impervious Runoff Depth=1.16"
Flow Length=440' Tc=2.9 min CN=91 Runoff=5.77 cfs 0.253 af

Subcatchment11B: WS 11B Runoff Area=2.488 ac 37.74% Impervious Runoff Depth=0.65"
Flow Length=382' Tc=6.2 min CN=82 Runoff=2.77 cfs 0.135 af

Subcatchment12: WS 12 Runoff Area=3.052 ac 1.15% Impervious Runoff Depth=0.48"
Flow Length=740' Tc=12.4 min CN=78 Runoff=1.89 cfs 0.123 af

Subcatchment12A: WS 12A Runoff Area=1.392 ac 2.66% Impervious Runoff Depth=0.48"
Flow Length=374' Tc=2.2 min CN=78 Runoff=1.29 cfs 0.056 af

Subcatchment12B: WS 12B Runoff Area=1.973 ac 2.53% Impervious Runoff Depth=0.29"
Flow Length=801' Tc=23.8 min CN=72 Runoff=0.39 cfs 0.048 af

Subcatchment12C: WS 12C Runoff Area=1.116 ac 0.00% Impervious Runoff Depth=0.24"
Flow Length=476' Tc=12.7 min CN=70 Runoff=0.24 cfs 0.022 af

Subcatchment12D: WS 12D Runoff Area=1.998 ac 21.72% Impervious Runoff Depth=0.56"
Flow Length=681' Tc=13.3 min CN=80 Runoff=1.44 cfs 0.094 af

Subcatchment12E: WS 12E Runoff Area=1.094 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=302' Tc=12.0 min CN=77 Runoff=0.62 cfs 0.041 af

Subcatchment12F: WS 12F Runoff Area=2.076 ac 10.74% Impervious Runoff Depth=0.48"
Flow Length=919' Tc=24.3 min CN=78 Runoff=0.86 cfs 0.084 af

Subcatchment12G: WS 12G Runoff Area=4.029 ac 3.67% Impervious Runoff Depth=0.38"
Flow Length=1,142' Tc=30.4 min CN=75 Runoff=1.01 cfs 0.128 af

Subcatchment13: WS 13 Runoff Area=0.338 ac 21.89% Impervious Runoff Depth=0.65"
Flow Length=290' Tc=11.5 min CN=82 Runoff=0.31 cfs 0.018 af

Subcatchment15H: WS 15H Runoff Area=18.929 ac 0.74% Impervious Runoff Depth=0.29"
Flow Length=3,396' Tc=48.8 min CN=72 Runoff=2.24 cfs 0.461 af

Subcatchment64S: WS 13A Runoff Area=2.849 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=612' Tc=15.1 min CN=78 Runoff=1.59 cfs 0.115 af

Subcatchment65S: WS 13B Runoff Area=1.525 ac 34.36% Impervious Runoff Depth=0.70"
Flow Length=331' Tc=1.3 min CN=83 Runoff=2.08 cfs 0.088 af

Subcatchment66S: WS 13C Runoff Area=2.469 ac 36.45% Impervious Runoff Depth=0.60"
Flow Length=409' Tc=8.9 min CN=81 Runoff=2.29 cfs 0.124 af

SubcatchmentR16: R16 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.81 cfs 0.040 af

SubcatchmentR17A: R17A Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=81 Runoff=1.04 cfs 0.050 af

SubcatchmentR17B: R17B Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=81 Runoff=1.04 cfs 0.050 af

SubcatchmentR18: R18 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=0.74"
Tc=6.0 min CN=84 Runoff=1.10 cfs 0.053 af

SubcatchmentR19: R19 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=82 Runoff=0.95 cfs 0.046 af

SubcatchmentR20: R20 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=81 Runoff=0.88 cfs 0.043 af

SubcatchmentR22: R22 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR23: R23 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR24: R24 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=1.18 cfs 0.056 af

SubcatchmentR25: R25 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR26: R26 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR27: R27 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR28: R28 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR29: R29 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR30: R30 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR31: R31 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR32: R32 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR33: R33 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=82 Runoff=0.44 cfs 0.021 af

SubcatchmentR34: R34 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR35: R35 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR36: R36 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR37: R37 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR38: R38 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR39: R39 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.74"
Tc=6.0 min CN=84 Runoff=0.91 cfs 0.044 af

SubcatchmentR40: R40 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=0.70"
Tc=6.0 min CN=83 Runoff=0.85 cfs 0.041 af

SubcatchmentR41: R41 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR42: R42 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR43: R43 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=82 Runoff=0.79 cfs 0.038 af

SubcatchmentR44: R44 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=0.74"
Tc=6.0 min CN=84 Runoff=0.91 cfs 0.044 af

SubcatchmentR45: R45 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR46: R46 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR47: R47 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR48: R48 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR49: R49 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR50: R50 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

Reach 17R: stream Avg. Flow Depth=0.16' Max Vel=4.26 fps Inflow=2.75 cfs 0.730 af
n=0.050 L=204.0' S=0.2696 '/' Capacity=62.68 cfs Outflow=2.74 cfs 0.730 af

Reach 19R: stream Avg. Flow Depth=0.25' Max Vel=4.72 fps Inflow=2.62 cfs 0.674 af
n=0.050 L=254.0' S=0.2087 '/' Capacity=63.50 cfs Outflow=2.60 cfs 0.674 af

Reach 23R: ditch Avg. Flow Depth=0.18' Max Vel=3.71 fps Inflow=2.17 cfs 0.504 af
n=0.050 L=550.0' S=0.1727 '/' Capacity=38.44 cfs Outflow=2.14 cfs 0.504 af

Reach 24R: ditch Avg. Flow Depth=0.19' Max Vel=3.13 fps Inflow=1.98 cfs 0.417 af
n=0.069 L=400.0' S=0.2375 '/' Capacity=163.35 cfs Outflow=1.96 cfs 0.417 af

Reach 29R: stream Avg. Flow Depth=0.52' Max Vel=5.04 fps Inflow=9.31 cfs 2.705 af
n=0.050 L=645.0' S=0.0946 '/' Capacity=100.62 cfs Outflow=9.17 cfs 2.705 af

Reach 32R: dead end stream Avg. Flow Depth=0.24' Max Vel=4.21 fps Inflow=3.24 cfs 1.239 af
n=0.050 L=770.0' S=0.1610 '/' Capacity=76.81 cfs Outflow=3.24 cfs 1.239 af

Reach 34R: stream Avg. Flow Depth=0.24' Max Vel=4.03 fps Inflow=3.08 cfs 0.980 af
n=0.050 L=370.0' S=0.1486 '/' Capacity=73.80 cfs Outflow=3.07 cfs 0.980 af

Reach 35R: flow in wetland Avg. Flow Depth=0.16' Max Vel=1.28 fps Inflow=2.47 cfs 0.696 af
n=0.100 L=600.0' S=0.0917 '/' Capacity=53.58 cfs Outflow=2.41 cfs 0.696 af

Reach 39R: stream Avg. Flow Depth=0.12' Max Vel=2.73 fps Inflow=1.59 cfs 0.370 af
n=0.050 L=1,100.0' S=0.1527 '/' Capacity=161.10 cfs Outflow=1.34 cfs 0.370 af

Reach 40R: stream Avg. Flow Depth=0.36' Max Vel=4.46 fps Inflow=10.68 cfs 1.982 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=10.08 cfs 1.982 af

Reach 42R: stream Avg. Flow Depth=0.24' Max Vel=4.46 fps Inflow=6.03 cfs 1.265 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=5.73 cfs 1.265 af

Reach 45R: flow in wetland Avg. Flow Depth=0.32' Max Vel=2.43 fps Inflow=5.47 cfs 0.910 af
n=0.100 L=1,200.0' S=0.1442 '/' Capacity=37.72 cfs Outflow=5.12 cfs 0.910 af

Reach 102R: stream Avg. Flow Depth=0.68' Max Vel=5.12 fps Inflow=44.42 cfs 11.074 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=44.30 cfs 11.073 af

Reach 103R: stream Avg. Flow Depth=0.47' Max Vel=4.76 fps Inflow=18.90 cfs 3.759 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=18.87 cfs 3.759 af

Reach 104R: stream Avg. Flow Depth=0.51' Max Vel=5.65 fps Inflow=24.71 cfs 6.828 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=24.66 cfs 6.827 af

Reach 108R: stream Avg. Flow Depth=0.18' Max Vel=3.46 fps Inflow=5.32 cfs 0.908 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=4.99 cfs 0.908 af

Reach 110R: stream Avg. Flow Depth=0.50' Max Vel=6.57 fps Inflow=21.48 cfs 5.003 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=21.41 cfs 5.003 af

Reach 111R: upperstream Avg. Flow Depth=0.18' Max Vel=3.73 fps Inflow=2.11 cfs 0.465 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=2.10 cfs 0.465 af

Reach 112R: stream Avg. Flow Depth=0.20' Max Vel=4.01 fps Inflow=4.95 cfs 0.803 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=3.96 cfs 0.803 af

Reach 113R: ditch Avg. Flow Depth=0.42' Max Vel=2.66 fps Inflow=2.74 cfs 0.730 af
n=0.069 L=245.0' S=0.0694 '/' Capacity=46.73 cfs Outflow=2.72 cfs 0.730 af

Pond 10P: new 36 Peak Elev=0.65' Inflow=3.13 cfs 0.853 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0300 '/' Outflow=3.13 cfs 0.853 af

Pond 12P: new 48 Peak Elev=1.14' Inflow=10.81 cfs 2.939 af
48.0" Round Culvert n=0.013 L=50.0' S=0.0560 '/' Outflow=10.81 cfs 2.939 af

Pond 16P: trunk line from condos Peak Elev=1,713.33' Inflow=8.21 cfs 0.387 af
30.0" Round Culvert n=0.013 L=700.0' S=0.0257 '/' Outflow=8.21 cfs 0.387 af

Pond 18P: Culvert 5 - Trail Inflow=2.75 cfs 0.730 af
Primary=2.75 cfs 0.730 af

Pond 20P: road culvert Peak Elev=1,774.32' Inflow=2.62 cfs 0.674 af
72.0" Round Culvert w/ 24.0" inside fill n=0.025 L=50.0' S=0.0200 '/' Outflow=2.62 cfs 0.674 af

Pond 21P: Pipe Down Slope Peak Elev=1,812.58' Storage=0.001 af Inflow=2.31 cfs 0.626 af
48.0" Round Culvert n=0.025 L=100.0' S=0.3200 '/' Outflow=2.31 cfs 0.626 af

Pond 22P: Pipe Down Slope Peak Elev=1,822.51' Inflow=2.31 cfs 0.626 af
48.0" Round Culvert n=0.025 L=100.0' S=0.0400 '/' Outflow=2.31 cfs 0.626 af

Pond 25P: road culvert Inflow=1.01 cfs 0.128 af
Primary=1.01 cfs 0.128 af

Pond 26P: road culvert Inflow=0.86 cfs 0.084 af
Primary=0.86 cfs 0.084 af

Pond 28P: road culvert Inflow=2.17 cfs 0.504 af
Primary=2.17 cfs 0.504 af

Pond 30P: Culvert 4 -Trail Inflow=5.13 cfs 0.784 af
Primary=5.13 cfs 0.784 af

Pond 31P: Trail Culvert Peak Elev=1,626.72' Inflow=4.41 cfs 1.679 af
72.0" Round Culvert n=0.025 L=300.0' S=0.0533 '/' Outflow=4.41 cfs 1.679 af

Pond 33P: Culvert 12 -Road Inflow=3.24 cfs 1.239 af
Primary=3.24 cfs 1.239 af

Pond 36P: trail culvert Inflow=2.47 cfs 0.696 af
Primary=2.47 cfs 0.696 af

Pond 37P: Road E Culvert Inflow=3.01 cfs 0.924 af
Primary=3.01 cfs 0.924 af

Pond 38P: Road A Culvert Inflow=2.33 cfs 0.602 af
Primary=2.33 cfs 0.602 af

Pond 41P: Culvert 3 - Trail 3 Inflow=10.68 cfs 1.982 af
Primary=10.68 cfs 1.982 af

Pond 43P: Culvert 11 -Trail 3 Inflow=5.60 cfs 1.129 af
Primary=5.60 cfs 1.129 af

Pond 44P: Culvert 13 -Road A Inflow=5.44 cfs 0.864 af
Primary=5.44 cfs 0.864 af

Pond 105P: Culvert 1 - Trail Inflow=24.38 cfs 6.156 af
Primary=24.38 cfs 6.156 af

Pond 106P: Culvert 2- Trail 2 Inflow=18.90 cfs 3.759 af
Primary=18.90 cfs 3.759 af

Pond 107P: Culvert 10 -Trail 2 Inflow=5.32 cfs 0.908 af
Primary=5.32 cfs 0.908 af

Pond 109P: Culvert 9-Trail Crossing Inflow=9.95 cfs 2.552 af
Primary=9.95 cfs 2.552 af

Pond P1: Condos Complex Wet Pond Peak Elev=1,685.07' Storage=74,071 cf Inflow=12.49 cfs 0.715 af
Primary=0.31 cfs 0.709 af Secondary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.709 af

Pond P11: Parking Lot G Wet Pond Peak Elev=1,535.45' Storage=73,444 cf Inflow=13.46 cfs 0.624 af
Primary=0.12 cfs 0.604 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.604 af

Pond P12: Drop-off Parking Lot Soil Filter Peak Elev=1,470.22' Storage=7,834 cf Inflow=3.79 cfs 0.244 af
Primary=0.07 cfs 0.244 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.244 af

Pond P13: Parking Lot H Wet Pond Peak Elev=1,567.79' Storage=20,688 cf Inflow=4.85 cfs 0.207 af
Primary=0.09 cfs 0.206 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.206 af

Pond P14: Timbers 1-7 Wet Pond Peak Elev=1,721.77' Storage=40,632 cf Inflow=7.60 cfs 0.329 af
Primary=0.13 cfs 0.326 af Secondary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.326 af

Pond P15: Timbers 8-10 Soil Filter Peak Elev=2,085.71' Storage=2,217 cf Inflow=1.75 cfs 0.075 af
Primary=0.04 cfs 0.075 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.075 af

Pond P16: Timbers 11-14 Soil Filter Peak Elev=2,122.23' Storage=3,493 cf Inflow=2.57 cfs 0.121 af
Primary=0.06 cfs 0.121 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.121 af

Pond P6: Lot R43 Soil Filter Peak Elev=1,825.05' Storage=1,886 cf Inflow=1.03 cfs 0.071 af
Primary=0.04 cfs 0.085 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.085 af

Pond P7: R40 Gravel Wetland Peak Elev=1,880.29' Storage=8,723 cf Inflow=1.50 cfs 0.178 af
Primary=0.03 cfs 0.178 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.178 af

Pond RG 16: Large Rain Garden Peak Elev=2,101.68' Storage=1,095 cf Inflow=0.81 cfs 0.040 af
Primary=0.03 cfs 0.040 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.040 af

Pond RG 17A: Large Rain Garden Peak Elev=2,102.12' Storage=1,382 cf Inflow=1.04 cfs 0.050 af
Primary=0.03 cfs 0.050 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.050 af

Pond RG 17B: Large Rain Garden Peak Elev=2,102.12' Storage=1,382 cf Inflow=1.04 cfs 0.050 af
Primary=0.03 cfs 0.050 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.050 af

Pond RG 18: Large Rain Garden Peak Elev=2,202.27' Storage=1,483 cf Inflow=1.10 cfs 0.053 af
Primary=0.04 cfs 0.053 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.053 af

Pond RG 19: Large Rain Garden Peak Elev=2,201.96' Storage=1,278 cf Inflow=0.95 cfs 0.046 af
Primary=0.03 cfs 0.046 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.046 af

Pond RG 20: Large Rain Garden Peak Elev=2,101.81' Storage=1,183 cf Inflow=0.88 cfs 0.043 af
Primary=0.03 cfs 0.043 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.043 af

Pond RG 22: Medium Rain Garden Peak Elev=2,052.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 23: Medium Rain Garden Peak Elev=2,052.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 24: Large Rain Garden Peak Elev=2,052.44' Storage=1,592 cf Inflow=1.18 cfs 0.056 af
Primary=0.04 cfs 0.056 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.056 af

Pond RG 25: Small Rain Garden Peak Elev=2,052.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 26: Small Rain Garden Peak Elev=2,052.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 27: Small Rain Garden Peak Elev=1,902.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 28: Small Rain Garden Peak Elev=1,902.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 29: Small Rain Garden Peak Elev=1,902.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 30: Small Rain Garden Peak Elev=1,902.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 31: Medium Rain Garden Peak Elev=2,002.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 32: Medium Rain Garden Peak Elev=1,801.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 33: Small Rain Garden Peak Elev=1,801.60' Storage=505 cf Inflow=0.44 cfs 0.021 af
Primary=0.03 cfs 0.021 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.021 af

Pond RG 34: Small Rain Garden Peak Elev=1,802.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 35: Small Rain Garden Peak Elev=1,802.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 36: Small Rain Garden Peak Elev=1,822.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 37: Small Rain Garden Peak Elev=1,822.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 38: Medium Rain Garden Peak Elev=2,002.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 39: Medium Rain Garden Peak Elev=1,902.22' Storage=1,174 cf Inflow=0.91 cfs 0.044 af
Primary=0.04 cfs 0.044 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.044 af

Pond RG 40: Medium Rain Garden Peak Elev=1,902.06' Storage=1,088 cf Inflow=0.85 cfs 0.041 af
Primary=0.03 cfs 0.041 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.041 af

Pond RG 41: Small Rain Garden Peak Elev=1,802.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 42: Medium Rain Garden Peak Elev=1,802.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 43: Medium Rain Garden Peak Elev=1,751.91' Storage=1,010 cf Inflow=0.79 cfs 0.038 af
Primary=0.03 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.038 af

Pond RG 44: Medium Rain Garden Peak Elev=1,752.22' Storage=1,173 cf Inflow=0.91 cfs 0.044 af
Primary=0.04 cfs 0.044 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.044 af

Pond RG 45: Medium Rain Garden Peak Elev=1,751.63' Storage=863 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 46: Medium Rain Garden Peak Elev=1,751.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 47: Medium Rain Garden Peak Elev=1,751.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 48: Medium Rain Garden Peak Elev=1,851.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 49: Medium Rain Garden Peak Elev=1,851.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 50: Medium Rain Garden Peak Elev=1,851.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Link SP1: Inflow=45.34 cfs 11.322 af
Primary=45.34 cfs 11.322 af

Link SP10:
Primary=0.00 cfs 0.000 af

Link SP11: Inflow=2.67 cfs 0.266 af
Primary=2.67 cfs 0.266 af

Link SP12: Inflow=3.13 cfs 0.853 af
Primary=3.13 cfs 0.853 af

Link SP13: Inflow=0.54 cfs 0.727 af
Primary=0.54 cfs 0.727 af

Link SP2: Inflow=0.55 cfs 0.051 af
Primary=0.55 cfs 0.051 af

Link SP3: Inflow=0.20 cfs 0.253 af
Primary=0.20 cfs 0.253 af

Link SP4: Inflow=11.98 cfs 2.145 af
Primary=11.98 cfs 2.145 af

Link SP5: Inflow=0.82 cfs 0.088 af
Primary=0.82 cfs 0.088 af

Link SP6: Inflow=10.81 cfs 2.939 af
Primary=10.81 cfs 2.939 af

Link SP7: Inflow=0.53 cfs 0.035 af
Primary=0.53 cfs 0.035 af

Link SP8: Inflow=0.29 cfs 0.017 af
Primary=0.29 cfs 0.017 af

Link SP9: Inflow=0.14 cfs 0.008 af
Primary=0.14 cfs 0.008 af

Total Runoff Area = 515.814 ac Runoff Volume = 18.721 af Average Runoff Depth = 0.44"
93.10% Pervious = 480.225 ac 6.90% Impervious = 35.589 ac

Summary for Subcatchment 1: WS 1

Runoff = 0.77 cfs @ 12.59 hrs, Volume= 0.133 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.019	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.414	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.134	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.567	77	Weighted Average
3.548		99.47% Pervious Area
0.019		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	37	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	102	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	150	0.0700	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	133	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00' n= 0.050
0.8	505	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00'

n= 0.050

51.7	1,065	Total

Summary for Subcatchment 1-1: WS 1-1

Runoff = 0.62 cfs @ 12.25 hrs, Volume= 0.068 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.863	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.472	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.479	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.814	77	Weighted Average
1.814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	105	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	60	0.4700	1.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	328	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
27.3	593	Total			

Summary for Subcatchment 1-2: WS 1-2

Runoff = 1.44 cfs @ 12.05 hrs, Volume= 0.092 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.685	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.351	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.002	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.130	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.114	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.282	78	Weighted Average
2.280		99.91% Pervious Area
0.002		0.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	194	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	53	0.4900	1.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	327	0.1000	13.40	563.00	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
12.0	674	Total			

Summary for Subcatchment 1-3: WS 1-3

Runoff = 2.65 cfs @ 12.29 hrs, Volume= 0.312 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.319	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.938	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
4.092	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
8.349	77	Weighted Average
8.349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
3.4	596	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.1	585	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.5	1,281	Total			

Summary for Subcatchment 1-4: WS 1-4

Runoff = 6.69 cfs @ 12.32 hrs, Volume= 0.838 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.284	70	Existing Woods, Good, HSG C
8.316	77	Existing Woods, Good, HSG D
0.588	70	Proposed Woods, Good, HSG C
1.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.088	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.085	71	Proposed meadow, ski trail, HSG C
6.341	78	Proposed meadow, ski trail, HSG D
0.360	71	Proposed meadow, ski lift, HSG C
2.079	78	Proposed meadow, ski lift, HSG D
24.316	76	Weighted Average
24.228		99.64% Pervious Area
0.088		0.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.8	294	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	760	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	482	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	447	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	637	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	138	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
31.6	2,809	Total			

Summary for Subcatchment 1-5: WS 1-5

Runoff = 7.15 cfs @ 12.79 hrs, Volume= 1.631 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.002	98	Untreated existing impervious, HSG C
0.341	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
4.136	71	Existing meadow, non-grazed, HSG C
6.492	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
23.027	70	Existing Woods, Good, HSG C
11.528	77	Existing Woods, Good, HSG D
2.098	70	Proposed Woods, Good, HSG C
0.523	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.131	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.542	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
7.617	71	Proposed meadow, ski trail, HSG C
4.678	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.115	73	Weighted Average
60.641		99.22% Pervious Area
0.474		0.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	361	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.3	252	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.6	459	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	334	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
61.0	6,226	Total			

Summary for Subcatchment 1-6: WS 1-6

Runoff = 1.75 cfs @ 11.92 hrs, Volume= 0.075 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.022	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.175	98	Proposed impervious to be treated, HSG C
0.342	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.330	71	Proposed developed meadow to be treated, HSG C
0.334	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.209	84	Weighted Average
0.692		57.24% Pervious Area
0.517		42.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	33	0.0300	1.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	51	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.6	325	0.1000	9.32	7.32	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
1.5	409	Total			

Summary for Subcatchment 1-7: WS 1-7

Runoff = 5.32 cfs @ 12.50 hrs, Volume= 0.908 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
10.166	70	Existing Woods, Good, HSG C
8.946	77	Existing Woods, Good, HSG D
1.118	70	Proposed Woods, Good, HSG C
1.643	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.068	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.838	71	Proposed meadow, ski trail, HSG C
5.370	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
31.149	74	Weighted Average
31.081		99.78% Pervious Area
0.068		0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.2700	0.29		**Sheet Flow,** n= 0.240 P2= 2.40"
1.0	229	0.2700	3.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	216	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	483	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	251	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	311	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	863	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	956	0.2100	7.19	21.56	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.1	413	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.8	509	0.1500	10.18	91.58	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
43.2	4,331	Total			

Summary for Subcatchment 1-8: WS 1-8

Runoff = 10.76 cfs @ 12.62 hrs, Volume= 2.013 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.004	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.012	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
9.906	70	Existing Woods, Good, HSG C
17.781	77	Existing Woods, Good, HSG D
2.274	70	Proposed Woods, Good, HSG C
3.491	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.042	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
8.051	71	Proposed meadow, ski trail, HSG C
18.519	78	Proposed meadow, ski trail, HSG D
2.211	71	Proposed meadow, ski lift, HSG C
1.103	78	Proposed meadow, ski lift, HSG D
63.400	75	Weighted Average
63.354		99.93% Pervious Area
0.046		0.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.2900	0.29		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.1	249	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	274	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	353	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	277	0.2500	7.84	23.52	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
5.7	374	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	462	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	579	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	294	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	639	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	363	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
1.3	806	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
52.2	4,770	Total			

Summary for Subcatchment 1A: WS 1A

Runoff = 1.02 cfs @ 12.27 hrs, Volume= 0.115 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.076	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050
28.5	821	Total			

Summary for Subcatchment 1B: WS 1B

Runoff = 3.84 cfs @ 12.11 hrs, Volume= 0.286 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.425	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.072	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
5.568	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.084	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.429	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.578	79	Weighted Average
6.069		92.26% Pervious Area
0.509		7.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.7	336	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.7	339	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	336	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	278	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	283	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.3	118	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.4	164	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	83	0.1400	9.87	29.62	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.3	505	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
16.6	2,480	Total			

Summary for Subcatchment 1B1: WS 1B1 - Lot G

Runoff = 3.48 cfs @ 11.93 hrs, Volume= 0.148 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.007	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.765	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.438	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.030	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.385	84	Weighted Average
1.620		67.92% Pervious Area
0.765		32.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.5	81	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	304	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.2	485	Total			

Summary for Subcatchment 1C: WS 1C

Runoff = 1.12 cfs @ 12.19 hrs, Volume= 0.109 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.334	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.260	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.053	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.261	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.908	77	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0600	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	122	0.0600	1.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	46	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	221	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	154	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	283	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
2.0	88	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.9	1,014	Total			

Summary for Subcatchment 1C1: WS 1C1

Runoff = 10.92 cfs @ 12.13 hrs, Volume= 0.841 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
3.283	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
3.459	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.788	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.702	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.998	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
15.551	82	Weighted Average
12.268		78.89% Pervious Area
3.283		21.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.5	172	0.1500	6.24		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.7	164	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	157	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.9	350	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	219	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	251	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	316	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	73	0.1900	11.50	34.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	300	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	179	0.0200	3.73	11.20	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.0	342	0.0500	5.90	17.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
18.9	2,648	Total			

Summary for Subcatchment 1C2: WS 1C2- Ex lot E

Runoff = 10.19 cfs @ 11.96 hrs, Volume= 0.476 af, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
3.136	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.703	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.869	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.211	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.919	88	Weighted Average
2.783		47.02% Pervious Area
3.136		52.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0500	1.72		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	90	0.0500	3.60		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	114	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	356	0.0300	4.57	13.71	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.2	195	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	31	0.3900	10.05		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
5.2	886	Total			

Summary for Subcatchment 1D: WS 1D- Ex Timbers

Runoff = 11.63 cfs @ 12.62 hrs, Volume= 2.125 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
4.355	98	Untreated existing impervious, HSG C
1.531	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
13.379	71	Existing meadow, non-grazed, HSG C
10.031	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
16.365	70	Existing Woods, Good, HSG C
13.468	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.473	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.199	98	Untreated proposed impervious, HSG D
0.067	71	Proposed developed meadow, non-grazed, HSG C
1.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.717	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.650	76	Weighted Average
55.557		90.12% Pervious Area
6.093		9.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	60	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	130	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	182	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	394	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	298	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	183	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	230	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	254	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	159	0.1300	9.31	130.40	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	160	0.1100	8.57	119.95	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
2.2	165	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	245	0.2600	1.27		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	192	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.1	231	0.1300	29.21	408.97	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.022
4.5	280	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	134	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	334	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	168	0.0800	16.81	235.27	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
1.1	398	0.0100	5.94	83.18	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.5	334	0.0400	11.88	166.36	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.2	176	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00'

n= 0.050 Mountain streams w/large boulders

53.2 4,707 Total

Summary for Subcatchment 1D1: WS 1D1

Runoff = 7.60 cfs @ 11.94 hrs, Volume= 0.329 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.085	98	Untreated existing impervious, HSG C
0.067	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.162	71	Existing meadow, non-grazed, HSG C
0.056	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.786	70	Existing Woods, Good, HSG C
0.665	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
1.703	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.200	71	Proposed developed meadow, non-grazed, HSG C
0.811	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.003	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
7.555	79	Weighted Average
5.683		75.22% Pervious Area
1.872		24.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.0	19	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	69	0.0600	3.67		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	427	0.1200	13.38	23.65	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
0.2	316	0.1900	31.50	125.99	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.016 Asphalt, rough
0.1	118	0.2400	22.93	72.04	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.020 Corrugated PE, corrugated interior
0.6	372	0.1500	10.92	43.69	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.041 Riprap, 2-inch
2.4	1,421	Total			

Summary for Subcatchment 1D2: WS 1D2

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.117 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.065	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.137	70	Existing Woods, Good, HSG C
0.049	77	Existing Woods, Good, HSG D
0.375	70	Proposed Woods, Good, HSG C
0.139	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.072	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
2.422	71	Proposed meadow, ski trail, HSG C
0.552	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.819	72	Weighted Average
4.811		99.83% Pervious Area
0.008		0.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
6.2	1,123	0.1890	3.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	1,223	Total			

Summary for Subcatchment 1D3: WS 1D3

Runoff = 1.33 cfs @ 12.01 hrs, Volume= 0.076 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.223	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.937	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.995	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.106	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.363	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.624	74	Weighted Average
2.295		87.46% Pervious Area
0.329		12.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	93	0.0500	1.69		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.5	259	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	220	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.8	70	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	89	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.2	731	Total			

Summary for Subcatchment 1D4: WS 1D4

Runoff = 1.37 cfs @ 11.99 hrs, Volume= 0.071 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.110	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.330	71	Existing meadow, non-grazed, HSG C
0.074	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.870	70	Existing Woods, Good, HSG C
0.224	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.117	98	Untreated proposed impervious, HSG C
0.063	98	Untreated proposed impervious, HSG D
0.185	71	Proposed developed meadow, non-grazed, HSG C
0.061	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.071	76	Weighted Average
1.744		84.21% Pervious Area
0.327		15.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.3	603	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	603	0.1300	8.26	99.08	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	1,306	Total			

Summary for Subcatchment 1D5: Untreated from Timbers (1D5)

Runoff = 2.67 cfs @ 11.94 hrs, Volume= 0.116 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.044	70	Existing Woods, Good, HSG C
0.402	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.017	98	Untreated proposed impervious, HSG C
0.390	98	Untreated proposed impervious, HSG D
0.199	71	Proposed developed meadow, non-grazed, HSG C
1.200	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.186	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.466	80	Weighted Average
2.059		83.50% Pervious Area
0.407		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	87	0.0700	1.91		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.3	105	0.1700	6.18		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.7	732	0.1000	7.24	86.90	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
2.8	924	Total			

Summary for Subcatchment 1D6: WS 1D6

Runoff = 2.57 cfs @ 11.97 hrs, Volume= 0.121 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.103	98	Proposed impervious to be treated, HSG C
0.537	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.127	71	Proposed developed meadow to be treated, HSG C
1.062	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.829	85	Weighted Average
1.189		65.01% Pervious Area
0.640		34.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	66	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	89	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	310	0.0600	11.11	8.73	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
5.4	465	Total			

Summary for Subcatchment 1D7: WS 1D7

Runoff = 2.05 cfs @ 12.48 hrs, Volume= 0.344 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.084	71	Existing meadow, non-grazed, HSG C
3.608	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.198	70	Existing Woods, Good, HSG C
1.644	77	Existing Woods, Good, HSG D
0.169	70	Proposed Woods, Good, HSG C
0.253	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.036	98	Untreated proposed impervious, HSG D
0.091	71	Proposed developed meadow, non-grazed, HSG C
0.164	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.288	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.787	74	Weighted Average
11.743		99.63% Pervious Area
0.044		0.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	89	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.4	228	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	185	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	217	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	273	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	293	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	264	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	251	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	300	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	194	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.2200	10.15	30.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
42.2	2,532	Total			

Summary for Subcatchment 2: WS 2

Runoff = 0.55 cfs @ 12.18 hrs, Volume= 0.051 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.070	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.048	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.012	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.275	78	Weighted Average
1.205		94.51% Pervious Area
0.070		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	35	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.7	242	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	176	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	129	0.0500	1.10	3.30	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.220
22.5	582	Total			

Summary for Subcatchment 2A: WS 2A

Runoff = 3.67 cfs @ 11.94 hrs, Volume= 0.157 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.010	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.002	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.910	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.162	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.084	87	Weighted Average
1.164		55.85% Pervious Area
0.920		44.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.6	457	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.8	557	Total			

Summary for Subcatchment 3: WS 3

Runoff = 0.14 cfs @ 12.07 hrs, Volume= 0.009 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.032	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.103	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.172	82	Weighted Average
0.135		78.49% Pervious Area
0.037		21.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.4	115	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.2	189	Total			

Summary for Subcatchment 3A: WS 3A

Runoff = 0.80 cfs @ 12.27 hrs, Volume= 0.086 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.824	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.161	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.048	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.040	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.411	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.480	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.985	79	Weighted Average
1.876		94.51% Pervious Area
0.109		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.1	136	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	241	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	18	0.4400	1.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	159	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.7	160	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	161	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
29.5	928	Total			

Summary for Subcatchment 4: WS 4

Runoff = 2.36 cfs @ 12.07 hrs, Volume= 0.163 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.009	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.993	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.257	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.104	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.363	77	Weighted Average
4.354		99.79% Pervious Area
0.009		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.1	269	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	100	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	436	0.1100	24.47	2,741.07	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=8.00' Z= 1.0 '/' Top.W=22.00' n= 0.050 Mountain streams w/large boulders
13.2	905	Total			

Summary for Subcatchment 4A: WS 4A

Runoff = 10.62 cfs @ 12.06 hrs, Volume= 0.717 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.200	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.739	71	Existing meadow, non-grazed, HSG C
0.785	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.883	70	Existing Woods, Good, HSG C
9.946	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
2.111	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
3.715	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
20.801	76	Weighted Average
20.500		98.55% Pervious Area
0.301		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.1900	0.25		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	180	0.1900	3.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	2,562	0.1550	9.80	58.80	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
12.1	2,842	Total			

Summary for Subcatchment 4B: WS 4B

Runoff = 3.05 cfs @ 12.08 hrs, Volume= 0.219 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.813	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.603	70	Existing Woods, Good, HSG C
3.488	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
1.104	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.065	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.286	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.006	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.365	76	Weighted Average
6.300		98.98% Pervious Area
0.065		1.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	38	0.0500	1.42		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	20	0.4000	4.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	270	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	168	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
0.4	218	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
4.4	217	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	211	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
13.4	1,142	Total			

Summary for Subcatchment 4C: WS 4C

Runoff = 5.41 cfs @ 12.42 hrs, Volume= 0.811 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.029	71	Existing meadow, non-grazed, HSG C
1.907	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.687	70	Existing Woods, Good, HSG C
5.408	77	Existing Woods, Good, HSG D
1.340	70	Proposed Woods, Good, HSG C
2.614	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.039	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.885	71	Proposed developed meadow, non-grazed, HSG C
1.161	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.924	71	Proposed meadow, ski trail, HSG C
4.557	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
25.551	75	Weighted Average
25.512		99.85% Pervious Area
0.039		0.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	37	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	270	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	431	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	157	0.3800	1.54		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	702	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	262	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	740	0.2200	7.36	22.07	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
3.5	248	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	347	0.1600	9.96	59.74	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
38.4	3,294	Total			

Summary for Subcatchment 5: WS 5

Runoff = 0.82 cfs @ 12.24 hrs, Volume= 0.088 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.012	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.790	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.133	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.420	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.355	77	Weighted Average
2.343		99.49% Pervious Area
0.012		0.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.0	89	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	13.49	40.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.030 Stream, clean & straight
26.8	887	Total			

Summary for Subcatchment 6: WS 6

Runoff = 3.15 cfs @ 12.10 hrs, Volume= 0.234 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
4.020	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.108	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.595	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.493	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.257	77	Weighted Average
6.216		99.34% Pervious Area
0.041		0.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	93	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	201	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	261	0.1500	8.96	35.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.5	182	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.8	241	0.0500	5.17	20.68	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	71	0.0600	5.30	15.90	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
15.1	1,268	Total			

Summary for Subcatchment 6A: WS 6A

Runoff = 3.84 cfs @ 12.23 hrs, Volume= 0.414 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.089	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.276	71	Existing meadow, non-grazed, HSG C
0.174	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.354	70	Existing Woods, Good, HSG C
3.771	77	Existing Woods, Good, HSG D
0.560	70	Proposed Woods, Good, HSG C
0.935	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.108	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.241	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
1.571	71	Proposed meadow, ski trail, HSG C
2.925	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
12.004	76	Weighted Average
11.807		98.36% Pervious Area
0.197		1.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	73	0.3400	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.7	149	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	142	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.6	62	0.5500	1.85		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.1	1,603	0.1370	12.71	152.58	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=2.00' Z= 1.0 '/' Top.W=8.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.5	2,029	Total			

Summary for Subcatchment 6B: WS 6B

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.744	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.972	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.006	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.722	77	Weighted Average
2.722		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	62	0.2500	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	47	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	340	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.8	449	Total			

Summary for Subcatchment 6C: WS 6C

Runoff = 0.74 cfs @ 12.31 hrs, Volume= 0.089 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.299	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.289	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.178	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.621	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.387	77	Weighted Average
2.387		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	29	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	87	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.1	281	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	96	0.0300	0.43		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
31.4	593	Total			

Summary for Subcatchment 7: WS 7

Runoff = 0.53 cfs @ 12.07 hrs, Volume= 0.035 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.056	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.774	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.042	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.872	78	Weighted Average
0.816		93.58% Pervious Area
0.056		6.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	92	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	253	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
13.0	518	Total			

Summary for Subcatchment 7A: WS 7A

Runoff = 4.85 cfs @ 11.93 hrs, Volume= 0.207 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.099	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.331	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.071	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.420	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.921	86	Weighted Average
1.751		59.95% Pervious Area
1.170		40.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	33	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	37	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	86	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	190	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.4	446	Total			

Summary for Subcatchment 7B: WS 7B

Runoff = 0.72 cfs @ 11.98 hrs, Volume= 0.036 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.040	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.084	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.066	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.696	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.886	78	Weighted Average
0.886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	51	0.1700	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	57	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	146	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	13	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	67	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.9	334	Total			

Summary for Subcatchment 7C: WS 7C

Runoff = 1.86 cfs @ 12.14 hrs, Volume= 0.166 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.488	70	Existing Woods, Good, HSG C
2.656	77	Existing Woods, Good, HSG D
0.242	70	Proposed Woods, Good, HSG C
0.547	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.074	71	Proposed developed meadow, non-grazed, HSG C
0.192	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.006	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.244	75	Weighted Average
5.205		99.26% Pervious Area
0.039		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.1	155	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	161	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	107	0.0400	4.58	54.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
0.5	407	0.1600	12.66	142.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.50' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
1.0	57	0.1400	0.94		**Shallow Concentrated Flow,**

Forest w/Heavy Litter Kv= 2.5 fps

18.3	929	Total

Summary for Subcatchment 7D: WS 7D

Runoff = 1.03 cfs @ 12.08 hrs, Volume= 0.071 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.662	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.493	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.107	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.362	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.624	79	Weighted Average
1.517		93.41% Pervious Area
0.107		6.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.2	419	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	76	0.0500	15.55	124.41	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
14.2	535	Total			

Summary for Subcatchment 7F: WS 7F

Runoff = 1.21 cfs @ 12.07 hrs, Volume= 0.082 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.051	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.495	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.003	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.001	71	Proposed developed meadow, non-grazed, HSG C
0.369	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.020	78	Weighted Average
1.916		94.85% Pervious Area
0.104		5.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.2	193	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	176	0.2700	13.65	122.86	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050 Mountain streams w/large boulders
13.2	443	Total			

Summary for Subcatchment 7G: WS 7G

Runoff = 0.93 cfs @ 12.37 hrs, Volume= 0.118 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.403	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.303	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.134	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.240	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.186	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.003	78	Proposed developed meadow to be treated, HSG D
0.046	71	Proposed meadow, ski trail, HSG C
0.382	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.700	79	Weighted Average
2.460		91.11% Pervious Area
0.240		8.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	52	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	327	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	181	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.2	266	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
36.7	926	Total			

Summary for Subcatchment 7H: WS 7H

Runoff = 0.88 cfs @ 12.01 hrs, Volume= 0.052 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.217	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.348	70	Existing Woods, Good, HSG C
0.348	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.028	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.100	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.350	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.002	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.781	74	Weighted Average
1.681		94.39% Pervious Area
0.100		5.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	100	0.0600	1.85		**Sheet Flow,** n= 0.011 P2= 2.40"
0.5	18	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	31	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	196	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	158	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	56	0.0900	6.49	19.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

7.7	559	Total

Summary for Subcatchment 8: WS 8

Runoff = 0.29 cfs @ 12.04 hrs, Volume= 0.017 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.066	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.277	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.001	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.344	81	Weighted Average
0.278		80.81% Pervious Area
0.066		19.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	327	Total			

Summary for Subcatchment 9: WS 9

Runoff = 0.14 cfs @ 12.04 hrs, Volume= 0.008 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.036	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.101	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.011	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.148	82	Weighted Average
0.112		75.68% Pervious Area
0.036		24.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	173	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.1	211	Total			

Summary for Subcatchment 10: WS 10

Runoff = 0.93 cfs @ 12.00 hrs, Volume= 0.050 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.332	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.208	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.513	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.228	78	Weighted Average
1.228		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	38	0.0900	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	84	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	106	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.6	307	Total			

Summary for Subcatchment 10A: WS 10A

Runoff = 1.33 cfs @ 12.16 hrs, Volume= 0.118 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.037	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.184	98	Untreated proposed impervious, HSG D
0.194	71	Proposed developed meadow, non-grazed, HSG C
1.430	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.172	71	Proposed meadow, ski trail, HSG C
0.891	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.911	78	Weighted Average
2.727		93.68% Pervious Area
0.184		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.2200	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	122	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	154	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	204	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
21.0	580	Total			

Summary for Subcatchment 10B: WS 10B

Runoff = 1.09 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.056	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.721	70	Existing Woods, Good, HSG C
0.184	77	Existing Woods, Good, HSG D
0.941	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.296	71	Proposed developed meadow, non-grazed, HSG C
0.558	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
1.043	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.805	72	Weighted Average
3.801		99.89% Pervious Area
0.004		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	47	0.1400	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.9	50	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	55	0.5200	1.80		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.2	533	0.1200	7.50	22.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050 Mountain streams w/large boulders
13.4	685	Total			

Summary for Subcatchment 11: WS 11

Runoff = 1.07 cfs @ 12.18 hrs, Volume= 0.098 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.051	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.928	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.259	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.566	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.636	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.440	78	Weighted Average
2.389		97.91% Pervious Area
0.051		2.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	130	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	29	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	105	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	216	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
22.3	580	Total			

Summary for Subcatchment 11A: WS 11A

Runoff = 5.77 cfs @ 11.93 hrs, Volume= 0.253 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.700	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.906	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.606	91	Weighted Average
0.906		34.77% Pervious Area
1.700		65.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	21	0.1000	1.66		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	70	0.3700	9.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.9	249	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.9	440	Total			

Summary for Subcatchment 11B: WS 11B

Runoff = 2.77 cfs @ 11.98 hrs, Volume= 0.135 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.772	98	Proposed impervious to be treated, HSG C
0.167	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.233	71	Proposed developed meadow to be treated, HSG C
0.316	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.488	82	Weighted Average
1.549		62.26% Pervious Area
0.939		37.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.4400	0.35		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	36	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	246	0.0200	3.24	38.86	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	382	Total			

Summary for Subcatchment 12: WS 12

Runoff = 1.89 cfs @ 12.06 hrs, Volume= 0.123 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.035	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.747	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.280	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.243	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.747	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.052	78	Weighted Average
3.017		98.85% Pervious Area
0.035		1.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.5	174	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	17	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	204	0.1700	9.95	49.77	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.050
1.0	245	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
12.4	740	Total			

Summary for Subcatchment 12A: WS 12A

Runoff = 1.29 cfs @ 11.94 hrs, Volume= 0.056 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.777	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.012	98	Untreated proposed impervious, HSG C
0.025	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.576	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.392	78	Weighted Average
1.355		97.34% Pervious Area
0.037		2.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	33	0.0600	1.48		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.4	87	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	254	0.1800	12.62	104.09	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.50' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	374	Total			

Summary for Subcatchment 12B: WS 12B

Runoff = 0.39 cfs @ 12.23 hrs, Volume= 0.048 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.082	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.046	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.995	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.846	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.973	72	Weighted Average
1.923		97.47% Pervious Area
0.050		2.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	304	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	307	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	90	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
23.8	801	Total			

Summary for Subcatchment 12C: WS 12C

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 0.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.044	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.492	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.372	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.208	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.116	70	Weighted Average
1.116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.6	115	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	302	0.1400	19.66	78.65	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
12.7	476	Total			

Summary for Subcatchment 12D: WS 12D

Runoff = 1.44 cfs @ 12.07 hrs, Volume= 0.094 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.024	71	Existing meadow, non-grazed, HSG C
0.014	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.122	70	Existing Woods, Good, HSG C
0.558	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.432	98	Proposed impervious to be treated, HSG C
0.002	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.523	71	Proposed developed meadow to be treated, HSG C
0.323	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.998	80	Weighted Average
1.564		78.28% Pervious Area
0.434		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	82	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	171	0.3000	3.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	379	0.1200	24.09	192.74	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
13.3	681	Total			

Summary for Subcatchment 12E: WS 12E

Runoff = 0.62 cfs @ 12.06 hrs, Volume= 0.041 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.042	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.033	70	Existing Woods, Good, HSG C
0.921	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.020	71	Proposed developed meadow, non-grazed, HSG C
0.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.094	77	Weighted Average
1.094		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	71	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.2	101	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1500	26.94	215.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
12.0	302	Total			

Summary for Subcatchment 12F: WS 12F

Runoff = 0.86 cfs @ 12.21 hrs, Volume= 0.084 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.346	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.593	77	Existing Woods, Good, HSG D
0.159	70	Proposed Woods, Good, HSG C
0.120	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.223	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.377	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.257	71	Proposed meadow, ski trail, HSG C
0.001	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.076	78	Weighted Average
1.853		89.26% Pervious Area
0.223		10.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	31	0.6500	5.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	129	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	130	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	195	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	334	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
24.3	919	Total			

Summary for Subcatchment 12G: WS 12G

Runoff = 1.01 cfs @ 12.31 hrs, Volume= 0.128 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.007	71	Existing meadow, non-grazed, HSG C
0.073	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.090	70	Existing Woods, Good, HSG C
0.912	77	Existing Woods, Good, HSG D
0.662	70	Proposed Woods, Good, HSG C
0.331	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.148	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.205	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.949	71	Proposed meadow, ski trail, HSG C
0.650	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.029	75	Weighted Average
3.881		96.33% Pervious Area
0.148		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1800	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	127	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	83	0.5300	1.82		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	305	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	182	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	262	0.0300	2.90	11.61	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
0.2	83	0.1200	5.80	23.22	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.4	1,142	Total			

Summary for Subcatchment 13: WS 13

Runoff = 0.31 cfs @ 12.04 hrs, Volume= 0.018 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.074	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.118	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.146	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.338	82	Weighted Average
0.264		78.11% Pervious Area
0.074		21.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	36	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	254	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
11.5	290	Total			

Summary for Subcatchment 15H: WS 15H

Runoff = 2.24 cfs @ 12.61 hrs, Volume= 0.461 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.864	71	Existing meadow, non-grazed, HSG C
0.081	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
4.191	70	Existing Woods, Good, HSG C
2.039	77	Existing Woods, Good, HSG D
2.433	70	Proposed Woods, Good, HSG C
0.330	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.140	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
5.213	71	Proposed developed meadow, non-grazed, HSG C
0.038	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.193	71	Proposed meadow, ski trail, HSG C
0.407	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
18.929	72	Weighted Average
18.789		99.26% Pervious Area
0.140		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	358	0.2800	3.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.3	1,352	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	765	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.9	612	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	209	0.2500	26.28	105.11	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
48.8	3,396	Total			

Summary for Subcatchment 64S: WS 13A

Runoff = 1.59 cfs @ 12.09 hrs, Volume= 0.115 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.353	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.301	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.695	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.500	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.849	78	Weighted Average
2.849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.4	211	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	612	Total			

Summary for Subcatchment 65S: WS 13B

Runoff = 2.08 cfs @ 11.91 hrs, Volume= 0.088 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.086	70	Existing Woods, Good, HSG C
0.116	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.379	98	Proposed impervious to be treated, HSG C
0.145	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.383	71	Proposed developed meadow to be treated, HSG C
0.416	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.525	83	Weighted Average
1.001		65.64% Pervious Area
0.524		34.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0700	1.97		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.0700	5.37		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	88	0.1600	28.80	90.49	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.3	118	0.2000	7.01	21.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.3	331	Total			

Summary for Subcatchment 66S: WS 13C

Runoff = 2.29 cfs @ 12.01 hrs, Volume= 0.124 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.900	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.569	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.469	81	Weighted Average
1.569		63.55% Pervious Area
0.900		36.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	42	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	170	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.4	97	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	409	Total			

Summary for Subcatchment R16: R16

Runoff = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17A: R17A

Runoff = 1.04 cfs @ 11.98 hrs, Volume= 0.050 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.270	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.501	71	Proposed developed meadow to be treated, HSG C
0.149	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17B: R17B

Runoff = 1.04 cfs @ 11.98 hrs, Volume= 0.050 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.341	98	Proposed impervious to be treated, HSG C
0.009	98	Proposed impervious to be treated, HSG D
0.634	71	Proposed developed meadow to be treated, HSG C
0.016	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R18: R18

Runoff = 1.10 cfs @ 11.98 hrs, Volume= 0.053 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.097	98	Proposed impervious to be treated, HSG C
0.202	98	Proposed impervious to be treated, HSG D
0.178	71	Proposed developed meadow to be treated, HSG C
0.373	78	Proposed developed meadow to be treated, HSG D
0.850	84	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R19: R19

Runoff = 0.95 cfs @ 11.98 hrs, Volume= 0.046 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.219	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.404	71	Proposed developed meadow to be treated, HSG C
0.147	78	Proposed developed meadow to be treated, HSG D
0.850	82	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R20: R20

Runoff = 0.88 cfs @ 11.98 hrs, Volume= 0.043 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.281	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.519	71	Proposed developed meadow to be treated, HSG C
0.032	78	Proposed developed meadow to be treated, HSG D
0.849	81	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R22: R22

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R23: R23

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R24: R24

Runoff = 1.18 cfs @ 11.98 hrs, Volume= 0.056 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.001	98	Proposed impervious to be treated, HSG C
0.297	98	Proposed impervious to be treated, HSG D
0.002	71	Proposed developed meadow to be treated, HSG C
0.549	78	Proposed developed meadow to be treated, HSG D
0.849	85	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R25: R25

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R26: R26

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R27: R27

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R28: R28

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R29: R29

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R30: R30

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R31: R31

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R32: R32

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R33: R33

Runoff = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R34: R34

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R35: R35

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R36: R36

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R37: R37

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R38: R38

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R39: R39

Runoff = 0.91 cfs @ 11.98 hrs, Volume= 0.044 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.035	98	Proposed impervious to be treated, HSG C
0.195	98	Proposed impervious to be treated, HSG D
0.072	71	Proposed developed meadow to be treated, HSG C
0.403	78	Proposed developed meadow to be treated, HSG D
0.705	84	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R40: R40

Runoff = 0.85 cfs @ 11.98 hrs, Volume= 0.041 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.074	98	Proposed impervious to be treated, HSG C
0.155	98	Proposed impervious to be treated, HSG D
0.153	71	Proposed developed meadow to be treated, HSG C
0.322	78	Proposed developed meadow to be treated, HSG D
0.704	83	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R41: R41

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R42: R42

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R43: R43

Runoff = 0.79 cfs @ 11.98 hrs, Volume= 0.038 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.135	98	Proposed impervious to be treated, HSG C
0.095	98	Proposed impervious to be treated, HSG D
0.279	71	Proposed developed meadow to be treated, HSG C
0.196	78	Proposed developed meadow to be treated, HSG D
0.705	82	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R44: R44

Runoff = 0.91 cfs @ 11.98 hrs, Volume= 0.044 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.042	98	Proposed impervious to be treated, HSG C
0.187	98	Proposed impervious to be treated, HSG D
0.088	71	Proposed developed meadow to be treated, HSG C
0.387	78	Proposed developed meadow to be treated, HSG D
0.704	84	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R45: R45

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.198	98	Proposed impervious to be treated, HSG C
0.031	98	Proposed impervious to be treated, HSG D
0.410	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.704	80	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R46: R46

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R47: R47

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R48: R48

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R49: R49

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R50: R50

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 17R: stream

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 2.75 cfs @ 12.37 hrs, Volume= 0.730 af
Outflow = 2.74 cfs @ 12.39 hrs, Volume= 0.730 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.26 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.22 fps, Avg. Travel Time= 2.8 min

Peak Storage= 131 cf @ 12.38 hrs
Average Depth at Peak Storage= 0.16' , Surface Width= 4.31'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 62.68 cfs

4.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 204.0' Slope= 0.2696 '/'
Inlet Invert= 1,711.00', Outlet Invert= 1,656.00'

Summary for Reach 19R: stream

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 2.62 cfs @ 12.35 hrs, Volume= 0.674 af
Outflow = 2.60 cfs @ 12.38 hrs, Volume= 0.674 af, Atten= 1%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.72 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 3.0 min

Peak Storage= 141 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 2.49'
Bank-Full Depth= 1.50' Flow Area= 5.3 sf, Capacity= 63.50 cfs

2.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 254.0' Slope= 0.2087 '/'
Inlet Invert= 1,770.00', Outlet Invert= 1,717.00'

Summary for Reach 23R: ditch

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 2.17 cfs @ 12.30 hrs, Volume= 0.504 af
Outflow = 2.14 cfs @ 12.37 hrs, Volume= 0.504 af, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.71 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 1.01 fps, Avg. Travel Time= 9.1 min

Peak Storage= 318 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.18' , Surface Width= 3.36'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 38.44 cfs

3.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 550.0' Slope= 0.1727 '/'
Inlet Invert= 1,945.00', Outlet Invert= 1,850.00'

Summary for Reach 24R: ditch

Inflow Area = 9.146 ac, 15.86% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 1.98 cfs @ 12.26 hrs, Volume= 0.417 af
Outflow = 1.96 cfs @ 12.32 hrs, Volume= 0.417 af, Atten= 1%, Lag= 3.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.13 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 1.01 fps, Avg. Travel Time= 6.6 min

Peak Storage= 250 cf @ 12.28 hrs
Average Depth at Peak Storage= 0.19' , Surface Width= 3.74'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 163.35 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.2375 '/'
Inlet Invert= 2,015.00', Outlet Invert= 1,920.00'

Summary for Reach 29R: stream

Inflow Area = 70.584 ac, 10.64% Impervious, Inflow Depth = 0.46" for 1-Year event
Inflow = 9.31 cfs @ 12.21 hrs, Volume= 2.705 af
Outflow = 9.17 cfs @ 12.28 hrs, Volume= 2.705 af, Atten= 1%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.04 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 10.7 min

Peak Storage= 1,181 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.52' , Surface Width= 4.04'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 100.62 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 645.0' Slope= 0.0946 '/'
Inlet Invert= 1,596.00', Outlet Invert= 1,535.00'

Summary for Reach 32R: dead end stream

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth = 0.43" for 1-Year event
Inflow = 3.24 cfs @ 12.80 hrs, Volume= 1.239 af
Outflow = 3.24 cfs @ 12.89 hrs, Volume= 1.239 af, Atten= 0%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.21 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 0.99 fps, Avg. Travel Time= 13.0 min

Peak Storage= 592 cf @ 12.84 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 3.48'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 76.81 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 770.0' Slope= 0.1610 '/'
Inlet Invert= 1,760.00', Outlet Invert= 1,636.00'

Summary for Reach 34R: stream

Inflow Area = 29.454 ac, 9.31% Impervious, Inflow Depth = 0.40" for 1-Year event
Inflow = 3.08 cfs @ 12.77 hrs, Volume= 0.980 af
Outflow = 3.07 cfs @ 12.81 hrs, Volume= 0.980 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.03 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.18 fps, Avg. Travel Time= 5.2 min

Peak Storage= 283 cf @ 12.79 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 3.47'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 73.80 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 370.0' Slope= 0.1486 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,760.00'

Summary for Reach 35R: flow in wetland

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 0.34" for 1-Year event
Inflow = 2.47 cfs @ 12.60 hrs, Volume= 0.696 af
Outflow = 2.41 cfs @ 12.82 hrs, Volume= 0.696 af, Atten= 2%, Lag= 13.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.28 fps, Min. Travel Time= 7.8 min
Avg. Velocity = 0.34 fps, Avg. Travel Time= 29.4 min

Peak Storage= 1,133 cf @ 12.69 hrs
Average Depth at Peak Storage= 0.16' , Surface Width= 12.31'
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 53.58 cfs

12.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 600.0' Slope= 0.0917 '/'
Inlet Invert= 2,080.00', Outlet Invert= 2,025.00'

‡

Summary for Reach 39R: stream

Inflow Area = 7.320 ac, 16.54% Impervious, Inflow Depth = 0.61" for 1-Year event
Inflow = 1.59 cfs @ 12.09 hrs, Volume= 0.370 af
Outflow = 1.34 cfs @ 12.28 hrs, Volume= 0.370 af, Atten= 16%, Lag= 11.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.73 fps, Min. Travel Time= 6.7 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 18.4 min

Peak Storage= 547 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 4.24'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 161.10 cfs

4.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 8.00'
Length= 1,100.0' Slope= 0.1527 '/'
Inlet Invert= 1,780.00', Outlet Invert= 1,612.00'

Summary for Reach 40R: stream

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 10.68 cfs @ 12.06 hrs, Volume= 1.982 af
Outflow = 10.08 cfs @ 12.15 hrs, Volume= 1.982 af, Atten= 6%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.46 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 1.08 fps, Avg. Travel Time= 11.9 min

Peak Storage= 1,748 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.36' , Surface Width= 6.71'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 36.708 ac, 2.54% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 6.03 cfs @ 12.64 hrs, Volume= 1.265 af
Outflow = 5.73 cfs @ 12.90 hrs, Volume= 1.265 af, Atten= 5%, Lag= 15.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.46 fps, Min. Travel Time= 9.1 min
Avg. Velocity = 1.03 fps, Avg. Travel Time= 39.7 min

Peak Storage= 3,135 cf @ 12.74 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 5.49'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 45R: flow in wetland

Inflow Area = 27.251 ac, 2.34% Impervious, Inflow Depth = 0.40" for 1-Year event
Inflow = 5.47 cfs @ 12.42 hrs, Volume= 0.910 af
Outflow = 5.12 cfs @ 12.67 hrs, Volume= 0.910 af, Atten= 6%, Lag= 14.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.43 fps, Min. Travel Time= 8.2 min
Avg. Velocity = 0.50 fps, Avg. Travel Time= 40.3 min

Peak Storage= 2,526 cf @ 12.53 hrs
Average Depth at Peak Storage= 0.32' , Surface Width= 7.27'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 37.72 cfs

6.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 1,200.0' Slope= 0.1442 '/'
Inlet Invert= 2,160.00', Outlet Invert= 1,987.00'

‡

Summary for Reach 102R: stream

Inflow Area = 321.776 ac, 5.78% Impervious, Inflow Depth > 0.41" for 1-Year event
Inflow = 44.42 cfs @ 12.70 hrs, Volume= 11.074 af
Outflow = 44.30 cfs @ 12.78 hrs, Volume= 11.073 af, Atten= 0%, Lag= 4.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.12 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 1.04 fps, Avg. Travel Time= 14.3 min

Peak Storage= 7,693 cf @ 12.73 hrs
Average Depth at Peak Storage= 0.68' , Surface Width= 13.36'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 18.90 cfs @ 12.63 hrs, Volume= 3.759 af
Outflow = 18.87 cfs @ 12.66 hrs, Volume= 3.759 af, Atten= 0%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.76 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 1.85 fps, Avg. Travel Time= 2.5 min

Peak Storage= 1,092 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.47' , Surface Width= 8.94'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 191.143 ac, 9.36% Impervious, Inflow Depth > 0.43" for 1-Year event
Inflow = 24.71 cfs @ 12.71 hrs, Volume= 6.828 af
Outflow = 24.66 cfs @ 12.75 hrs, Volume= 6.827 af, Atten= 0%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.65 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 7.0 min

Peak Storage= 2,163 cf @ 12.73 hrs
Average Depth at Peak Storage= 0.51' , Surface Width= 9.03'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 5.32 cfs @ 12.50 hrs, Volume= 0.908 af
Outflow = 4.99 cfs @ 12.78 hrs, Volume= 0.908 af, Atten= 6%, Lag= 16.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.46 fps, Min. Travel Time= 9.5 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 23.9 min

Peak Storage= 2,840 cf @ 12.62 hrs
Average Depth at Peak Storage= 0.18' , Surface Width= 8.35'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 157.125 ac, 6.82% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 21.48 cfs @ 12.68 hrs, Volume= 5.003 af
Outflow = 21.41 cfs @ 12.76 hrs, Volume= 5.003 af, Atten= 0%, Lag= 4.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.57 fps, Min. Travel Time= 3.0 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 14.3 min

Peak Storage= 3,827 cf @ 12.71 hrs
Average Depth at Peak Storage= 0.50' , Surface Width= 7.00'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 13.616 ac, 5.02% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 2.11 cfs @ 12.48 hrs, Volume= 0.465 af
Outflow = 2.10 cfs @ 12.57 hrs, Volume= 0.465 af, Atten= 1%, Lag= 5.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.73 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 1.14 fps, Avg. Travel Time= 10.0 min

Peak Storage= 385 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.18' , Surface Width= 3.35'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 21.986 ac, 10.30% Impervious, Inflow Depth = 0.44" for 1-Year event
Inflow = 4.95 cfs @ 11.96 hrs, Volume= 0.803 af
Outflow = 3.96 cfs @ 12.10 hrs, Volume= 0.803 af, Atten= 20%, Lag= 8.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.01 fps, Min. Travel Time= 5.1 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 18.3 min

Peak Storage= 1,249 cf @ 12.02 hrs
Average Depth at Peak Storage= 0.20' , Surface Width= 5.39'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Reach 113R: ditch

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 2.74 cfs @ 12.39 hrs, Volume= 0.730 af
Outflow = 2.72 cfs @ 12.44 hrs, Volume= 0.730 af, Atten= 1%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.66 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 0.78 fps, Avg. Travel Time= 5.3 min

Peak Storage= 252 cf @ 12.41 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 2.85'
Bank-Full Depth= 2.00' Flow Area= 8.0 sf, Capacity= 46.73 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 245.0' Slope= 0.0694 '/'
Inlet Invert= 1,656.00', Outlet Invert= 1,639.00'

Summary for Pond 10P: new 36

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 3.13 cfs @ 12.06 hrs, Volume= 0.853 af
Outflow = 3.13 cfs @ 12.06 hrs, Volume= 0.853 af, Atten= 0%, Lag= 0.0 min
Primary = 3.13 cfs @ 12.06 hrs, Volume= 0.853 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 0.65' @ 12.06 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.10' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=3.10 cfs @ 12.06 hrs HW=0.65' (Free Discharge)
1=Culvert (Inlet Controls 3.10 cfs @ 2.75 fps)

Summary for Pond 12P: new 48

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth = 0.46" for 1-Year event
Inflow = 10.81 cfs @ 12.24 hrs, Volume= 2.939 af
Outflow = 10.81 cfs @ 12.24 hrs, Volume= 2.939 af, Atten= 0%, Lag= 0.0 min
Primary = 10.81 cfs @ 12.24 hrs, Volume= 2.939 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.14' @ 12.24 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**48.0" Round Culvert** L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0560 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=10.77 cfs @ 12.24 hrs HW=1.14' (Free Discharge)
1=Culvert (Inlet Controls 10.77 cfs @ 3.64 fps)

Summary for Pond 16P: trunk line from condos

Inflow Area = 5.094 ac, 51.81% Impervious, Inflow Depth = 0.91" for 1-Year event
Inflow = 8.21 cfs @ 11.94 hrs, Volume= 0.387 af
Outflow = 8.21 cfs @ 11.94 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min
Primary = 8.21 cfs @ 11.94 hrs, Volume= 0.387 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,713.33' @ 11.94 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,712.00'	**30.0" Round Culvert** L= 700.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 1,712.00' / 1,694.00' S= 0.0257 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=8.04 cfs @ 11.94 hrs HW=1,713.31' (Free Discharge)
1=Culvert (Inlet Controls 8.04 cfs @ 3.08 fps)

Summary for Pond 18P: Culvert 5 - Trail

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 2.75 cfs @ 12.37 hrs, Volume= 0.730 af
Primary = 2.75 cfs @ 12.37 hrs, Volume= 0.730 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 20P: road culvert

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 2.62 cfs @ 12.35 hrs, Volume= 0.674 af
Outflow = 2.62 cfs @ 12.35 hrs, Volume= 0.674 af, Atten= 0%, Lag= 0.0 min
Primary = 2.62 cfs @ 12.35 hrs, Volume= 0.674 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,774.32' @ 12.35 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,774.00'	**72.0" Round Culvert w/ 24.0" inside fill** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,772.00' / 1,771.00' S= 0.0200 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 20.02 sf

Primary OutFlow Max=2.62 cfs @ 12.35 hrs HW=1,774.32' (Free Discharge)
1=Culvert (Inlet Controls 2.62 cfs @ 1.43 fps)

Summary for Pond 21P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 0.53" for 1-Year event
Inflow = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af
Outflow = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af, Atten= 0%, Lag= 0.0 min
Primary = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,812.58' @ 12.37 hrs Surf.Area= 0.001 ac Storage= 0.001 af

Plug-Flow detention time= 0.5 min calculated for 0.626 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (1,084.0 - 1,083.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,812.00'	0.016 af	**8.00'D x 14.00'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	1,812.00'	**48.0" Round Culvert**

L= 100.0' CMP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 1,812.00' / 1,780.00' S= 0.3200 '/' Cc= 0.900
n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=2.29 cfs @ 12.37 hrs HW=1,812.58' (Free Discharge)
1=Culvert (Inlet Controls 2.29 cfs @ 2.04 fps)

Summary for Pond 22P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 0.53" for 1-Year event
Inflow = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af
Outflow = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af, Atten= 0%, Lag= 0.0 min
Primary = 2.31 cfs @ 12.37 hrs, Volume= 0.626 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,822.51' @ 12.37 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**48.0" Round Culvert**
			L= 100.0' CMP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 1,822.00' / 1,818.00' S= 0.0400 '/' Cc= 0.900
			n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=2.30 cfs @ 12.37 hrs HW=1,822.51' (Free Discharge)
1=Culvert (Inlet Controls 2.30 cfs @ 2.44 fps)

Summary for Pond 25P: road culvert

Inflow Area = 4.029 ac, 3.67% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 1.01 cfs @ 12.31 hrs, Volume= 0.128 af
Primary = 1.01 cfs @ 12.31 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 26P: road culvert

Inflow Area = 2.076 ac, 10.74% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.86 cfs @ 12.21 hrs, Volume= 0.084 af
Primary = 0.86 cfs @ 12.21 hrs, Volume= 0.084 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 28P: road culvert

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 2.17 cfs @ 12.30 hrs, Volume= 0.504 af
Primary = 2.17 cfs @ 12.30 hrs, Volume= 0.504 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 30P: Culvert 4 -Trail

Inflow Area = 19.324 ac, 7.29% Impervious, Inflow Depth = 0.49" for 1-Year event
Inflow = 5.13 cfs @ 12.25 hrs, Volume= 0.784 af
Primary = 5.13 cfs @ 12.25 hrs, Volume= 0.784 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 31P: Trail Culvert

Inflow Area = 47.453 ac, 10.39% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 4.41 cfs @ 12.15 hrs, Volume= 1.679 af
Outflow = 4.41 cfs @ 12.15 hrs, Volume= 1.679 af, Atten= 0%, Lag= 0.0 min
Primary = 4.41 cfs @ 12.15 hrs, Volume= 1.679 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,626.72' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,626.00'	**72.0" Round Culvert** L= 300.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,626.00' / 1,610.00' S= 0.0533 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 28.27 sf

Primary OutFlow Max=4.40 cfs @ 12.15 hrs HW=1,626.72' (Free Discharge)
1=Culvert (Inlet Controls 4.40 cfs @ 2.28 fps)

Summary for Pond 33P: Culvert 12 -Road

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth = 0.43" for 1-Year event
Inflow = 3.24 cfs @ 12.80 hrs, Volume= 1.239 af
Primary = 3.24 cfs @ 12.80 hrs, Volume= 1.239 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 36P: trail culvert

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 0.34" for 1-Year event
Inflow = 2.47 cfs @ 12.60 hrs, Volume= 0.696 af
Primary = 2.47 cfs @ 12.60 hrs, Volume= 0.696 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 37P: Road E Culvert

Inflow Area = 28.672 ac, 8.44% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 3.01 cfs @ 12.77 hrs, Volume= 0.924 af
Primary = 3.01 cfs @ 12.77 hrs, Volume= 0.924 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 38P: Road A Culvert

Inflow Area = 21.778 ac, 5.23% Impervious, Inflow Depth = 0.33" for 1-Year event
Inflow = 2.33 cfs @ 12.61 hrs, Volume= 0.602 af
Primary = 2.33 cfs @ 12.61 hrs, Volume= 0.602 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 41P: Culvert 3 - Trail 3

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 10.68 cfs @ 12.06 hrs, Volume= 1.982 af
Primary = 10.68 cfs @ 12.06 hrs, Volume= 1.982 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 43P: Culvert 11 -Trail 3

Inflow Area = 33.616 ac, 2.09% Impervious, Inflow Depth = 0.40" for 1-Year event
Inflow = 5.60 cfs @ 12.65 hrs, Volume= 1.129 af
Primary = 5.60 cfs @ 12.65 hrs, Volume= 1.129 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 44P: Culvert 13 -Road A

Inflow Area = 26.401 ac, 1.28% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 5.44 cfs @ 12.42 hrs, Volume= 0.864 af
Primary = 5.44 cfs @ 12.42 hrs, Volume= 0.864 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 105P: Culvert 1 - Trail

Inflow Area = 181.025 ac, 7.73% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 24.38 cfs @ 12.71 hrs, Volume= 6.156 af
Primary = 24.38 cfs @ 12.71 hrs, Volume= 6.156 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 106P: Culvert 2- Trail 2

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 0.38" for 1-Year event
Inflow = 18.90 cfs @ 12.63 hrs, Volume= 3.759 af
Primary = 18.90 cfs @ 12.63 hrs, Volume= 3.759 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 107P: Culvert 10 -Trail 2

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 5.32 cfs @ 12.50 hrs, Volume= 0.908 af
Primary = 5.32 cfs @ 12.50 hrs, Volume= 0.908 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 109P: Culvert 9-Trail Crossing

Inflow Area = 87.920 ac, 3.12% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 9.95 cfs @ 12.74 hrs, Volume= 2.552 af
Primary = 9.95 cfs @ 12.74 hrs, Volume= 2.552 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond P1: Condos Complex Wet Pond

Inflow Area = 11.937 ac, 34.04% Impervious, Inflow Depth = 0.72" for 1-Year event
Inflow = 12.49 cfs @ 11.95 hrs, Volume= 0.715 af
Outflow = 0.31 cfs @ 17.33 hrs, Volume= 0.709 af, Atten= 98%, Lag= 323.1 min
Primary = 0.31 cfs @ 17.33 hrs, Volume= 0.709 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,684.00' Surf.Area= 29,057 sf Storage= 54,189 cf
Peak Elev= 1,685.07' @ 17.33 hrs Surf.Area= 35,936 sf Storage= 74,071 cf (19,883 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 889.0 min (1,736.8 - 847.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,678.00'	54,189 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,684.00'	66,450 cf	**CPv (Irregular)** Listed below (Recalc)
		120,639 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,678.00	4,365	481.7	0	0	4,365
1,679.00	5,839	500.5	5,084	5,084	5,914
1,680.00	7,369	519.4	6,589	11,673	7,531
1,681.00	8,954	538.2	8,149	19,822	9,199
1,682.00	10,598	557.1	9,764	29,586	10,935
1,683.00	12,297	575.9	11,437	41,023	12,722
1,684.00	14,053	594.8	13,165	54,189	14,578

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,684.00	15,004	752.2	0	0	15,004
1,685.00	21,703	791.7	18,251	18,251	19,918
1,686.00	24,167	734.9	22,924	41,175	26,860
1,687.00	26,400	753.8	25,275	66,450	29,220

Device	Routing	Invert	Outlet Devices
#1	Primary	1,681.00'	**24.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,681.00' / 1,680.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,684.00'	**3.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,686.00'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,686.00'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.31 cfs @ 17.33 hrs HW=1,685.07' (Free Discharge)
└**1=Culvert** (Passes 0.31 cfs of 20.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 4.64 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,684.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P11: Parking Lot G Wet Pond

Inflow Area = 8.304 ac, 46.98% Impervious, Inflow Depth = 0.90" for 1-Year event
Inflow = 13.46 cfs @ 11.95 hrs, Volume= 0.624 af
Outflow = 0.12 cfs @ 24.02 hrs, Volume= 0.604 af, Atten= 99%, Lag= 724.2 min
Primary = 0.12 cfs @ 24.02 hrs, Volume= 0.604 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,534.10' Surf.Area= 24,527 sf Storage= 51,257 cf
Peak Elev= 1,535.45' @ 24.02 hrs Surf.Area= 30,166 sf Storage= 73,444 cf (22,187 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 2,130.5 min (2,966.0 - 835.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,527.00'	49,963 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,534.00'	77,661 cf	**CPv (Irregular)** Listed below (Recalc)
		127,624 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,527.00	3,398	312.2	0	0	3,398
1,528.00	4,364	331.3	3,871	3,871	4,428
1,529.00	5,386	350.1	4,866	8,737	5,502
1,530.00	6,465	369.0	5,917	14,654	6,642
1,531.00	7,600	387.8	7,025	21,679	7,836
1,532.00	8,792	406.7	8,189	29,868	9,095
1,533.00	10,040	425.5	9,409	39,277	10,408
1,534.00	11,345	444.4	10,686	49,963	11,787

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,534.00	12,700	621.7	0	0	12,700
1,535.00	17,927	661.0	15,239	15,239	16,762
1,536.00	19,949	587.1	18,929	34,168	24,129
1,537.00	21,739	606.0	20,838	55,005	26,020
1,538.00	23,585	624.8	22,656	77,661	27,961

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.00' / 1,528.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,534.10'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,536.60'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,536.90'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.12 cfs @ 24.02 hrs HW=1,535.45' (Free Discharge)
└**1=Culvert** (Passes 0.12 cfs of 53.39 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 5.42 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,534.10' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P12: Drop-off Parking Lot Soil Filter

Inflow Area = 4.069 ac, 25.29% Impervious, Inflow Depth = 0.72" for 1-Year event
Inflow = 3.79 cfs @ 11.94 hrs, Volume= 0.244 af
Outflow = 0.07 cfs @ 20.00 hrs, Volume= 0.244 af, Atten= 98%, Lag= 484.0 min
Primary = 0.07 cfs @ 20.00 hrs, Volume= 0.244 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,466.33' Surf.Area= 3,018 sf Storage= 398 cf
Peak Elev= 1,470.22' @ 20.00 hrs Surf.Area= 3,922 sf Storage= 7,834 cf (7,435 cf above start)

Plug-Flow detention time= 1,232.0 min calculated for 0.235 af (96% of inflow)
Center-of-Mass det. time= 1,160.6 min (2,016.0 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,466.00'	29,485 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,466.00	3,018	237.3	0.0	0	0	3,018
1,467.50	3,018	237.3	40.0	1,811	1,811	3,374
1,469.00	3,018	237.3	40.0	1,811	3,622	3,730
1,470.00	3,758	256.1	100.0	3,381	7,003	4,508
1,472.00	5,408	293.8	100.0	9,116	16,119	6,247
1,473.00	6,739	328.1	100.0	6,061	22,180	7,973
1,474.00	7,886	362.8	100.0	7,305	29,485	9,912

Device	Routing	Invert	Outlet Devices
#1	Primary	1,466.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,466.00' / 1,464.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,466.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,472.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,473.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.07 cfs @ 20.00 hrs HW=1,470.22' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.07 cfs of 12.51 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 9.43 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,466.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P13: Parking Lot H Wet Pond

Inflow Area = 2.921 ac, 40.05% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 4.85 cfs @ 11.93 hrs, Volume= 0.207 af
Outflow = 0.09 cfs @ 16.95 hrs, Volume= 0.206 af, Atten= 98%, Lag= 300.9 min
Primary = 0.09 cfs @ 16.95 hrs, Volume= 0.206 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,567.00' Surf.Area= 11,858 sf Storage= 14,847 cf
Peak Elev= 1,567.79' @ 16.95 hrs Surf.Area= 14,824 sf Storage= 20,688 cf (5,841 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 900.7 min (1,739.0 - 838.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,561.00'	14,847 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,567.00'	30,200 cf	**CPv (Irregular)** Listed below (Recalc)
		45,047 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,561.00	495	188.6	0	0	495
1,566.00	4,031	282.9	9,898	9,898	4,224
1,567.00	5,929	467.9	4,950	14,847	15,284

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,567.00	5,929	467.9	0	0	5,929
1,568.00	9,766	479.1	7,768	7,768	6,897
1,569.00	11,246	454.1	10,497	18,265	8,811
1,570.00	12,637	473.0	11,935	30,200	10,280

Device	Routing	Invert	Outlet Devices
#1	Primary	1,560.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,560.00' / 1,559.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,567.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,568.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,569.00'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 16.95 hrs HW=1,567.79' (Free Discharge)
└**1=Culvert** (Passes 0.09 cfs of 67.41 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 4.06 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,567.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P14: Timbers 1-7 Wet Pond

Inflow Area = 7.555 ac, 24.78% Impervious, Inflow Depth = 0.52" for 1-Year event
Inflow = 7.60 cfs @ 11.94 hrs, Volume= 0.329 af
Outflow = 0.13 cfs @ 18.94 hrs, Volume= 0.326 af, Atten= 98%, Lag= 419.9 min
Primary = 0.13 cfs @ 18.94 hrs, Volume= 0.326 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,721.00' Surf.Area= 19,738 sf Storage= 31,523 cf
Peak Elev= 1,721.77' @ 18.94 hrs Surf.Area= 23,756 sf Storage= 40,632 cf (9,109 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 943.7 min (1,812.4 - 868.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,715.00'	31,523 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,721.00'	46,722 cf	**CPv (Irregular)** Listed below (Recalc)
		78,245 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,715.00	1,909	325.0	0	0	1,909
1,716.00	2,912	343.8	2,393	2,393	2,964
1,717.00	3,972	362.7	3,428	5,821	4,084
1,718.00	5,088	381.6	4,519	10,340	5,263
1,719.00	6,261	400.4	5,664	16,004	6,497
1,720.00	7,490	419.3	6,866	22,870	7,796
1,721.00	9,869	603.5	8,652	31,523	22,797

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,721.00	9,869	603.5	0	0	9,869
1,722.00	15,216	645.8	12,446	12,446	14,120
1,723.00	17,184	596.9	16,190	28,636	18,996
1,724.00	19,003	615.8	18,086	46,722	20,918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,714.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,714.00' / 1,713.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,721.00'	**2.5" Vert. Orifice/Grate - Gravel Bench Underdrain** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,722.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,722.80'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.13 cfs @ 18.94 hrs HW=1,721.77' (Free Discharge)
└**1=Culvert** (Passes 0.13 cfs of 67.28 cfs potential flow)
  ├**2=Orifice/Grate - Gravel Bench Underdrain**(Orifice Controls 0.13 cfs @ 3.93 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,721.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P15: Timbers 8-10 Soil Filter

Inflow Area = 1.209 ac, 42.76% Impervious, Inflow Depth = 0.74" for 1-Year event
Inflow = 1.75 cfs @ 11.92 hrs, Volume= 0.075 af
Outflow = 0.04 cfs @ 15.74 hrs, Volume= 0.075 af, Atten= 98%, Lag= 229.7 min
Primary = 0.04 cfs @ 15.74 hrs, Volume= 0.075 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,083.33' Surf.Area= 2,042 sf Storage= 270 cf
Peak Elev= 2,085.71' @ 15.74 hrs Surf.Area= 2,042 sf Storage= 2,217 cf (1,948 cf above start)

Plug-Flow detention time= 751.2 min calculated for 0.069 af (92% of inflow)
Center-of-Mass det. time= 642.3 min (1,488.3 - 846.0)

Volume	Invert	Avail.Storage	Storage Description
#1	2,083.00'	17,217 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,083.00	2,042	210.0	0.0	0	0	2,042
2,084.50	2,042	210.0	40.0	1,225	1,225	2,357
2,086.00	2,042	210.0	40.0	1,225	2,450	2,672
2,087.00	2,702	230.0	100.0	2,364	4,815	3,406
2,088.00	3,753	271.0	100.0	3,213	8,028	5,060
2,090.00	5,491	308.5	100.0	9,189	17,217	6,884

Device	Routing	Invert	Outlet Devices
#1	Primary	2,083.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,083.00' / 2,082.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,083.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	2,088.20'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	2,088.30'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.04 cfs @ 15.74 hrs HW=2,085.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 15.64 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.37 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,083.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P16: Timbers 11-14 Soil Filter

Inflow Area = 1.829 ac, 34.99% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 2.57 cfs @ 11.97 hrs, Volume= 0.121 af
Outflow = 0.06 cfs @ 15.77 hrs, Volume= 0.121 af, Atten= 98%, Lag= 228.3 min
Primary = 0.06 cfs @ 15.77 hrs, Volume= 0.121 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,119.33' Surf.Area= 2,430 sf Storage= 321 cf
Peak Elev= 2,122.23' @ 15.77 hrs Surf.Area= 2,590 sf Storage= 3,493 cf (3,172 cf above start)

Plug-Flow detention time= 711.9 min calculated for 0.114 af (94% of inflow)
Center-of-Mass det. time= 631.0 min (1,476.3 - 845.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,119.00'	13,840 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,119.00	2,430	238.8	0.0	0	0	2,430
2,120.50	2,430	238.8	40.0	1,458	1,458	2,788
2,122.00	2,430	238.8	40.0	1,458	2,916	3,146
2,124.00	3,989	280.8	100.0	6,355	9,271	4,959
2,125.00	5,174	303.4	100.0	4,569	13,840	6,050

Device	Routing	Invert	Outlet Devices
#1	Primary	2,119.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,119.00' / 2,117.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,119.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,119.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,123.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,124.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.06 cfs @ 15.77 hrs HW=2,122.23' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.06 cfs of 17.83 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 8.13 fps)
  │ └**3=Exfiltration** (Passes 0.06 cfs of 0.18 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,119.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P6: Lot R43 Soil Filter

Inflow Area = 1.624 ac, 6.59% Impervious, Inflow Depth = 0.52" for 1-Year event
Inflow = 1.03 cfs @ 12.08 hrs, Volume= 0.071 af
Outflow = 0.04 cfs @ 15.96 hrs, Volume= 0.085 af, Atten= 96%, Lag= 232.9 min
Primary = 0.04 cfs @ 15.96 hrs, Volume= 0.085 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,823.33' Surf.Area= 1,505 sf Storage= 801 cf
Peak Elev= 1,825.05' @ 15.96 hrs Surf.Area= 1,540 sf Storage= 1,886 cf (1,085 cf above start)

Plug-Flow detention time= 601.0 min calculated for 0.066 af (94% of inflow)
Center-of-Mass det. time= 338.4 min (1,218.1 - 879.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,822.00'	9,945 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,822.00	1,505	233.0	0.0	0	0	1,505
1,823.50	1,505	233.0	40.0	903	903	1,855
1,825.00	1,505	233.0	40.0	903	1,806	2,204
1,826.00	2,234	252.5	100.0	1,858	3,664	2,996
1,828.00	4,145	312.6	100.0	6,281	9,945	5,757

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,822.00' / 1,822.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	1,822.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,826.75'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,826.90'	**4.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.04 cfs @ 15.96 hrs HW=1,825.05' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 6.43 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.88 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,823.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P7: R40 Gravel Wetland

Inflow Area = 3.407 ac, 26.21% Impervious, Inflow Depth = 0.63" for 1-Year event
Inflow = 1.50 cfs @ 12.07 hrs, Volume= 0.178 af
Outflow = 0.03 cfs @ 27.36 hrs, Volume= 0.178 af, Atten= 98%, Lag= 917.7 min
Primary = 0.03 cfs @ 27.36 hrs, Volume= 0.178 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,878.66' Surf.Area= 2,904 sf Storage= 3,090 cf
Peak Elev= 1,880.29' @ 27.36 hrs Surf.Area= 4,936 sf Storage= 8,723 cf (5,633 cf above start)

Plug-Flow detention time= 3,097.7 min calculated for 0.107 af (60% of inflow)
Center-of-Mass det. time= 1,944.3 min (2,981.0 - 1,036.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,876.00'	4,453 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,876.00'	4,490 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,879.00'	867 cf	**Forebay (Irregular)**Listed below (Recalc)
#4	1,880.50'	21,050 cf	**Ponding (Irregular)**Listed below (Recalc)
		30,860 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,451	148.5	0.0	0	0	1,451
1,879.00	1,451	148.5	40.0	1,741	1,741	1,897
1,880.50	2,190	179.7	100.0	2,712	4,453	2,748

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,453	157.2	0.0	0	0	1,453
1,879.00	1,453	157.2	40.0	1,744	1,744	1,925
1,880.50	2,237	191.9	100.0	2,746	4,490	2,924

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,879.00	365	83.7	0.0	0	0	365
1,880.50	821	118.0	100.0	867	867	936

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,880.50	5,542	309.5	0	0	5,542
1,882.00	6,999	337.8	9,385	9,385	7,078
1,883.50	8,582	366.0	11,666	21,050	8,744

Device	Routing	Invert	Outlet Devices
#1	Primary	1,878.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,878.00' / 1,877.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,878.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,882.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,882.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.03 cfs @ 27.36 hrs HW=1,880.29' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 13.55 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.06 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,878.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 16: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af
Outflow = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af, Atten= 96%, Lag= 165.1 min
Primary = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,101.68' @ 14.73 hrs Surf.Area= 1,630 sf Storage= 1,095 cf (880 cf above start)

Plug-Flow detention time= 529.9 min calculated for 0.035 af (88% of inflow)
Center-of-Mass det. time= 398.9 min (1,266.4 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 14.73 hrs HW=2,101.68' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.48 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.51 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17A: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 1.04 cfs @ 11.98 hrs, Volume= 0.050 af
Outflow = 0.03 cfs @ 15.07 hrs, Volume= 0.050 af, Atten= 97%, Lag= 185.5 min
Primary = 0.03 cfs @ 15.07 hrs, Volume= 0.050 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,102.12' @ 15.07 hrs Surf.Area= 1,630 sf Storage= 1,382 cf (1,167 cf above start)

Plug-Flow detention time= 562.3 min calculated for 0.045 af (90% of inflow)
Center-of-Mass det. time= 453.4 min (1,316.5 - 863.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 15.07 hrs HW=2,102.12' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 7.86 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.37 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17B: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 1.04 cfs @ 11.98 hrs, Volume= 0.050 af
Outflow = 0.03 cfs @ 15.07 hrs, Volume= 0.050 af, Atten= 97%, Lag= 185.5 min
Primary = 0.03 cfs @ 15.07 hrs, Volume= 0.050 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,102.12' @ 15.07 hrs Surf.Area= 1,630 sf Storage= 1,382 cf (1,167 cf above start)

Plug-Flow detention time= 562.3 min calculated for 0.045 af (90% of inflow)
Center-of-Mass det. time= 453.4 min (1,316.5 - 863.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 15.07 hrs HW=2,102.12' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 7.86 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.37 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 18: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 0.74" for 1-Year event
Inflow = 1.10 cfs @ 11.98 hrs, Volume= 0.053 af
Outflow = 0.04 cfs @ 14.71 hrs, Volume= 0.053 af, Atten= 97%, Lag= 164.2 min
Primary = 0.04 cfs @ 14.71 hrs, Volume= 0.053 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,202.27' @ 14.71 hrs Surf.Area= 1,630 sf Storage= 1,483 cf (1,268 cf above start)

Plug-Flow detention time= 572.1 min calculated for 0.048 af (91% of inflow)
Center-of-Mass det. time= 466.9 min (1,317.0 - 850.2)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.71 hrs HW=2,202.27' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.64 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 19: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.95 cfs @ 11.98 hrs, Volume= 0.046 af
Outflow = 0.03 cfs @ 14.73 hrs, Volume= 0.046 af, Atten= 97%, Lag= 164.7 min
Primary = 0.03 cfs @ 14.73 hrs, Volume= 0.046 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,201.96' @ 14.73 hrs Surf.Area= 1,630 sf Storage= 1,278 cf (1,063 cf above start)

Plug-Flow detention time= 550.5 min calculated for 0.041 af (89% of inflow)
Center-of-Mass det. time= 432.7 min (1,291.4 - 858.7)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 14.73 hrs HW=2,201.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 7.39 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.07 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 20: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 0.88 cfs @ 11.98 hrs, Volume= 0.043 af
Outflow = 0.03 cfs @ 14.73 hrs, Volume= 0.043 af, Atten= 96%, Lag= 164.8 min
Primary = 0.03 cfs @ 14.73 hrs, Volume= 0.043 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,101.81' @ 14.73 hrs Surf.Area= 1,630 sf Storage= 1,183 cf (968 cf above start)

Plug-Flow detention time= 539.8 min calculated for 0.038 af (88% of inflow)
Center-of-Mass det. time= 415.6 min (1,278.6 - 863.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 14.73 hrs HW=2,101.81' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.93 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.78 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 22: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,052.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=2,052.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 23: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,052.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=2,052.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 24: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 1.18 cfs @ 11.98 hrs, Volume= 0.056 af
Outflow = 0.04 cfs @ 14.71 hrs, Volume= 0.056 af, Atten= 97%, Lag= 163.7 min
Primary = 0.04 cfs @ 14.71 hrs, Volume= 0.056 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,052.44' @ 14.71 hrs Surf.Area= 1,630 sf Storage= 1,592 cf (1,377 cf above start)

Plug-Flow detention time= 585.5 min calculated for 0.051 af (91% of inflow)
Center-of-Mass det. time= 483.7 min (1,329.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,630	0.0	0	0
2,051.50	1,630	40.0	978	978
2,053.00	1,630	40.0	978	1,956
2,054.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.71 hrs HW=2,052.44' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.74 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.93 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 25: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,052.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 284.0 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=2,052.15' (Free Discharge)
↑—**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
↑—**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
—**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
↑—**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 26: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,052.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 284.0 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=2,052.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
└**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 27: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,902.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
└**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 28: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,902.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
└**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 29: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,902.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 30: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,902.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 31: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,002.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=2,002.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 32: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,801.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,801.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 33: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af
Outflow = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af, Atten= 93%, Lag= 60.3 min
Primary = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,801.60' @ 12.99 hrs Surf.Area= 790 sf Storage= 505 cf (400 cf above start)

Plug-Flow detention time= 270.0 min calculated for 0.019 af (89% of inflow)
Center-of-Mass det. time= 175.3 min (1,034.0 - 858.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 12.99 hrs HW=1,801.60' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.03 cfs of 6.18 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.33 fps)
    - **3=Exfiltration** (Passes 0.03 cfs of 0.05 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 34: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,802.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 35: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,802.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 36: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,822.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,822.15' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 37: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,822.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,822.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 38: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,002.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=2,002.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 39: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.74" for 1-Year event
Inflow = 0.91 cfs @ 11.98 hrs, Volume= 0.044 af
Outflow = 0.04 cfs @ 13.97 hrs, Volume= 0.044 af, Atten= 96%, Lag= 119.2 min
Primary = 0.04 cfs @ 13.97 hrs, Volume= 0.044 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,902.22' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 1,174 cf (1,000 cf above start)

Plug-Flow detention time= 467.4 min calculated for 0.040 af (91% of inflow)
Center-of-Mass det. time= 371.6 min (1,221.7 - 850.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.97 hrs HW=1,902.22' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 8.15 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.55 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 40: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 0.70" for 1-Year event
Inflow = 0.85 cfs @ 11.98 hrs, Volume= 0.041 af
Outflow = 0.03 cfs @ 13.96 hrs, Volume= 0.041 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.96 hrs, Volume= 0.041 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,902.06' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,088 cf (914 cf above start)

Plug-Flow detention time= 458.1 min calculated for 0.037 af (90% of inflow)
Center-of-Mass det. time= 357.2 min (1,211.7 - 854.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.96 hrs HW=1,902.06' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 7.69 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.26 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 41: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,802.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 42: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,802.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=1,802.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 43: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.79 cfs @ 11.98 hrs, Volume= 0.038 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.038 af, Atten= 96%, Lag= 119.2 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,751.91' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 1,010 cf (836 cf above start)

Plug-Flow detention time= 448.2 min calculated for 0.034 af (89% of inflow)
Center-of-Mass det. time= 343.5 min (1,202.2 - 858.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,751.91' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 7.24 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.97 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 44: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 0.74" for 1-Year event
Inflow = 0.91 cfs @ 11.98 hrs, Volume= 0.044 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.044 af, Atten= 96%, Lag= 119.2 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.044 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,752.22' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,173 cf (998 cf above start)

Plug-Flow detention time= 465.8 min calculated for 0.040 af (91% of inflow)
Center-of-Mass det. time= 371.3 min (1,221.4 - 850.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=1,752.22' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.14 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.54 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 45: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.0 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,751.63' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 863 cf (689 cf above start)

Plug-Flow detention time= 433.9 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.6 min (1,183.0 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,751.63' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 46: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,751.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,751.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 47: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,751.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,751.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 48: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,851.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,851.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 49: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,851.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,851.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 50: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,851.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=1,851.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
    └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Link SP1:

Inflow Area = 328.419 ac, 5.67% Impervious, Inflow Depth > 0.41" for 1-Year event
Inflow = 45.34 cfs @ 12.78 hrs, Volume= 11.322 af
Primary = 45.34 cfs @ 12.78 hrs, Volume= 11.322 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 6.579 ac, 3.57% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 2.67 cfs @ 12.15 hrs, Volume= 0.266 af
Primary = 2.67 cfs @ 12.15 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 3.13 cfs @ 12.06 hrs, Volume= 0.853 af
Primary = 3.13 cfs @ 12.06 hrs, Volume= 0.853 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 12.275 ac, 33.70% Impervious, Inflow Depth > 0.71" for 1-Year event
Inflow = 0.54 cfs @ 12.05 hrs, Volume= 0.727 af
Primary = 0.54 cfs @ 12.05 hrs, Volume= 0.727 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 1.275 ac, 5.49% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.55 cfs @ 12.18 hrs, Volume= 0.051 af
Primary = 0.55 cfs @ 12.18 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 4.241 ac, 25.14% Impervious, Inflow Depth = 0.72" for 1-Year event
Inflow = 0.20 cfs @ 12.07 hrs, Volume= 0.253 af
Primary = 0.20 cfs @ 12.07 hrs, Volume= 0.253 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 61.872 ac, 2.01% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 11.98 cfs @ 12.14 hrs, Volume= 2.145 af
Primary = 11.98 cfs @ 12.14 hrs, Volume= 2.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 2.355 ac, 0.51% Impervious, Inflow Depth = 0.45" for 1-Year event
Inflow = 0.82 cfs @ 12.24 hrs, Volume= 0.088 af
Primary = 0.82 cfs @ 12.24 hrs, Volume= 0.088 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth = 0.46" for 1-Year event
Inflow = 10.81 cfs @ 12.24 hrs, Volume= 2.939 af
Primary = 10.81 cfs @ 12.24 hrs, Volume= 2.939 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 0.872 ac, 6.42% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.53 cfs @ 12.07 hrs, Volume= 0.035 af
Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.344 ac, 19.19% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 0.29 cfs @ 12.04 hrs, Volume= 0.017 af
Primary = 0.29 cfs @ 12.04 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 0.148 ac, 24.32% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.14 cfs @ 12.04 hrs, Volume= 0.008 af
Primary = 0.14 cfs @ 12.04 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS 1 Runoff Area=3.567 ac 0.53% Impervious Runoff Depth=0.68"
Flow Length=1,065' Tc=51.7 min CN=77 Runoff=1.27 cfs 0.202 af

Subcatchment1-1: WS 1-1 Runoff Area=1.814 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=593' Tc=27.3 min CN=77 Runoff=1.02 cfs 0.103 af

Subcatchment1-2: WS 1-2 Runoff Area=2.282 ac 0.09% Impervious Runoff Depth=0.72"
Flow Length=674' Tc=12.0 min CN=78 Runoff=2.25 cfs 0.138 af

Subcatchment1-3: WS 1-3 Runoff Area=8.349 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=1,281' Tc=30.5 min CN=77 Runoff=4.35 cfs 0.472 af

Subcatchment1-4: WS 1-4 Runoff Area=24.316 ac 0.36% Impervious Runoff Depth=0.63"
Flow Length=2,809' Tc=31.6 min CN=76 Runoff=11.32 cfs 1.286 af

Subcatchment1-5: WS 1-5 Runoff Area=61.115 ac 0.78% Impervious Runoff Depth=0.51"
Flow Length=6,226' Tc=61.0 min CN=73 Runoff=13.13 cfs 2.620 af

Subcatchment1-6: WS 1-6 Runoff Area=1.209 ac 42.76% Impervious Runoff Depth=1.04"
Flow Length=409' Tc=1.5 min CN=84 Runoff=2.45 cfs 0.105 af

Subcatchment1-7: WS 1-7 Runoff Area=31.149 ac 0.22% Impervious Runoff Depth=0.55"
Flow Length=4,331' Tc=43.2 min CN=74 Runoff=9.57 cfs 1.435 af

Subcatchment1-8: WS 1-8 Runoff Area=63.400 ac 0.07% Impervious Runoff Depth=0.59"
Flow Length=4,770' Tc=52.2 min CN=75 Runoff=18.71 cfs 3.133 af

Subcatchment1A: WS 1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=821' Tc=28.5 min CN=77 Runoff=1.68 cfs 0.174 af

Subcatchment1B: WS 1B Runoff Area=6.578 ac 7.74% Impervious Runoff Depth=0.77"
Flow Length=2,480' Tc=16.6 min CN=79 Runoff=5.93 cfs 0.423 af

Subcatchment1B1: WS 1B1 - Lot G Runoff Area=2.385 ac 32.08% Impervious Runoff Depth=1.04"
Flow Length=485' Tc=2.2 min CN=84 Runoff=4.85 cfs 0.206 af

Subcatchment1C: WS 1C Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=1,014' Tc=22.9 min CN=77 Runoff=1.84 cfs 0.164 af

Subcatchment1C1: WS 1C1 Runoff Area=15.551 ac 21.11% Impervious Runoff Depth=0.93"
Flow Length=2,648' Tc=18.9 min CN=82 Runoff=16.06 cfs 1.199 af

Subcatchment1C2: WS 1C2- Ex lot E Runoff Area=5.919 ac 52.98% Impervious Runoff Depth=1.30"
Flow Length=886' Tc=5.2 min CN=88 Runoff=13.62 cfs 0.639 af

Subcatchment1D: WS 1D- Ex Timbers Runoff Area=61.650 ac 9.88% Impervious Runoff Depth=0.63"
Flow Length=4,707' Tc=53.2 min CN=76 Runoff=19.68 cfs 3.261 af

Subcatchment1D1: WS 1D1 Runoff Area=7.555 ac 24.78% Impervious Runoff Depth=0.77"
Flow Length=1,421' Tc=2.4 min CN=79 Runoff=11.38 cfs 0.486 af

Subcatchment1D2: WS 1D2 Runoff Area=4.819 ac 0.17% Impervious Runoff Depth=0.48"
Flow Length=1,223' Tc=13.4 min CN=72 Runoff=2.63 cfs 0.192 af

Subcatchment1D3: WS 1D3 Runoff Area=2.624 ac 12.54% Impervious Runoff Depth=0.55"
Flow Length=731' Tc=7.2 min CN=74 Runoff=2.28 cfs 0.121 af

Subcatchment1D4: WS 1D4 Runoff Area=2.071 ac 15.79% Impervious Runoff Depth=0.63"
Flow Length=1,306' Tc=6.2 min CN=76 Runoff=2.20 cfs 0.110 af

Subcatchment1D5: Untreated from Runoff Area=2.466 ac 16.50% Impervious Runoff Depth=0.82"
Flow Length=924' Tc=2.8 min CN=80 Runoff=3.94 cfs 0.169 af

Subcatchment1D6: WS 1D6 Runoff Area=1.829 ac 34.99% Impervious Runoff Depth=1.10"
Flow Length=465' Tc=5.4 min CN=85 Runoff=3.56 cfs 0.168 af

Subcatchment1D7: WS 1D7 Runoff Area=11.787 ac 0.37% Impervious Runoff Depth=0.55"
Flow Length=2,532' Tc=42.2 min CN=74 Runoff=3.68 cfs 0.543 af

Subcatchment2: WS 2 Runoff Area=1.275 ac 5.49% Impervious Runoff Depth=0.72"
Flow Length=582' Tc=22.5 min CN=78 Runoff=0.89 cfs 0.077 af

Subcatchment2A: WS 2A Runoff Area=2.084 ac 44.15% Impervious Runoff Depth=1.23"
Flow Length=557' Tc=2.8 min CN=87 Runoff=4.94 cfs 0.213 af

Subcatchment3: WS 3 Runoff Area=0.172 ac 21.51% Impervious Runoff Depth=0.93"
Flow Length=189' Tc=14.2 min CN=82 Runoff=0.21 cfs 0.013 af

Subcatchment3A: WS 3A Runoff Area=1.985 ac 5.49% Impervious Runoff Depth=0.77"
Flow Length=928' Tc=29.5 min CN=79 Runoff=1.25 cfs 0.128 af

Subcatchment4: WS 4 Runoff Area=4.363 ac 0.21% Impervious Runoff Depth=0.68"
Flow Length=905' Tc=13.2 min CN=77 Runoff=3.81 cfs 0.247 af

Subcatchment4A: WS 4A Runoff Area=20.801 ac 1.45% Impervious Runoff Depth=0.63"
Flow Length=2,842' Tc=12.1 min CN=76 Runoff=17.48 cfs 1.100 af

Subcatchment4B: WS 4B Runoff Area=6.365 ac 1.02% Impervious Runoff Depth=0.63"
Flow Length=1,142' Tc=13.4 min CN=76 Runoff=5.08 cfs 0.337 af

Subcatchment4C: WS 4C Runoff Area=25.551 ac 0.15% Impervious Runoff Depth=0.59"
Flow Length=3,294' Tc=38.4 min CN=75 Runoff=9.43 cfs 1.263 af

Subcatchment5: WS 5 Runoff Area=2.355 ac 0.51% Impervious Runoff Depth=0.68"
Flow Length=887' Tc=26.8 min CN=77 Runoff=1.34 cfs 0.133 af

Subcatchment6: WS 6 Runoff Area=6.257 ac 0.66% Impervious Runoff Depth=0.68"
Flow Length=1,268' Tc=15.1 min CN=77 Runoff=5.08 cfs 0.354 af

Subcatchment6A: WS 6A Runoff Area=12.004 ac 1.64% Impervious Runoff Depth=0.63"
Flow Length=2,029' Tc=25.5 min CN=76 Runoff=6.49 cfs 0.635 af

Subcatchment6B: WS 6B Runoff Area=2.722 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=449' Tc=14.8 min CN=77 Runoff=2.23 cfs 0.154 af

Subcatchment6C: WS 6C Runoff Area=2.387 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=593' Tc=31.4 min CN=77 Runoff=1.22 cfs 0.135 af

Subcatchment7: WS 7 Runoff Area=0.872 ac 6.42% Impervious Runoff Depth=0.72"
Flow Length=518' Tc=13.0 min CN=78 Runoff=0.83 cfs 0.053 af

Subcatchment7A: WS 7A Runoff Area=2.921 ac 40.05% Impervious Runoff Depth=1.16"
Flow Length=446' Tc=2.4 min CN=86 Runoff=6.60 cfs 0.283 af

Subcatchment7B: WS 7B Runoff Area=0.886 ac 0.00% Impervious Runoff Depth=0.72"
Flow Length=334' Tc=5.9 min CN=78 Runoff=1.10 cfs 0.053 af

Subcatchment7C: WS 7C Runoff Area=5.244 ac 0.74% Impervious Runoff Depth=0.59"
Flow Length=929' Tc=18.3 min CN=75 Runoff=3.21 cfs 0.259 af

Subcatchment7D: WS 7D Runoff Area=1.624 ac 6.59% Impervious Runoff Depth=0.77"
Flow Length=535' Tc=14.2 min CN=79 Runoff=1.59 cfs 0.104 af

Subcatchment7F: WS 7F Runoff Area=2.020 ac 5.15% Impervious Runoff Depth=0.72"
Flow Length=443' Tc=13.2 min CN=78 Runoff=1.90 cfs 0.122 af

Subcatchment7G: WS 7G Runoff Area=2.700 ac 8.89% Impervious Runoff Depth=0.77"
Flow Length=926' Tc=36.7 min CN=79 Runoff=1.46 cfs 0.174 af

Subcatchment7H: WS 7H Runoff Area=1.781 ac 5.61% Impervious Runoff Depth=0.55"
Flow Length=559' Tc=7.7 min CN=74 Runoff=1.52 cfs 0.082 af

Subcatchment8: WS 8 Runoff Area=0.344 ac 19.19% Impervious Runoff Depth=0.87"
Flow Length=327' Tc=11.5 min CN=81 Runoff=0.43 cfs 0.025 af

Subcatchment9: WS 9 Runoff Area=0.148 ac 24.32% Impervious Runoff Depth=0.93"
Flow Length=211' Slope=0.0900 '/' Tc=11.1 min CN=82 Runoff=0.20 cfs 0.011 af

Subcatchment10: WS 10 Runoff Area=1.228 ac 0.00% Impervious Runoff Depth=0.72"
Flow Length=307' Tc=7.6 min CN=78 Runoff=1.44 cfs 0.074 af

Subcatchment10A: WS 10A Runoff Area=2.911 ac 6.32% Impervious Runoff Depth=0.72"
Flow Length=580' Tc=21.0 min CN=78 Runoff=2.12 cfs 0.176 af

Subcatchment10B: WS 10B Runoff Area=3.805 ac 0.11% Impervious Runoff Depth=0.48"
Flow Length=685' Tc=13.4 min CN=72 Runoff=2.07 cfs 0.151 af

Subcatchment11: WS 11 Runoff Area=2.440 ac 2.09% Impervious Runoff Depth=0.72"
Flow Length=580' Tc=22.3 min CN=78 Runoff=1.71 cfs 0.147 af

Subcatchment11A: WS 11A Runoff Area=2.606 ac 65.23% Impervious Runoff Depth=1.52"
Flow Length=440' Tc=2.9 min CN=91 Runoff=7.43 cfs 0.330 af

Subcatchment11B: WS 11B Runoff Area=2.488 ac 37.74% Impervious Runoff Depth=0.93"
Flow Length=382' Tc=6.2 min CN=82 Runoff=3.98 cfs 0.192 af

Subcatchment12: WS 12 Runoff Area=3.052 ac 1.15% Impervious Runoff Depth=0.72"
Flow Length=740' Tc=12.4 min CN=78 Runoff=2.97 cfs 0.184 af

Subcatchment12A: WS 12A Runoff Area=1.392 ac 2.66% Impervious Runoff Depth=0.72"
Flow Length=374' Tc=2.2 min CN=78 Runoff=1.96 cfs 0.084 af

Subcatchment12B: WS 12B Runoff Area=1.973 ac 2.53% Impervious Runoff Depth=0.48"
Flow Length=801' Tc=23.8 min CN=72 Runoff=0.75 cfs 0.079 af

Subcatchment12C: WS 12C Runoff Area=1.116 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=476' Tc=12.7 min CN=70 Runoff=0.50 cfs 0.038 af

Subcatchment12D: WS 12D Runoff Area=1.998 ac 21.72% Impervious Runoff Depth=0.82"
Flow Length=681' Tc=13.3 min CN=80 Runoff=2.17 cfs 0.137 af

Subcatchment12E: WS 12E Runoff Area=1.094 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=302' Tc=12.0 min CN=77 Runoff=1.00 cfs 0.062 af

Subcatchment12F: WS 12F Runoff Area=2.076 ac 10.74% Impervious Runoff Depth=0.72"
Flow Length=919' Tc=24.3 min CN=78 Runoff=1.37 cfs 0.125 af

Subcatchment12G: WS 12G Runoff Area=4.029 ac 3.67% Impervious Runoff Depth=0.59"
Flow Length=1,142' Tc=30.4 min CN=75 Runoff=1.76 cfs 0.199 af

Subcatchment13: WS 13 Runoff Area=0.338 ac 21.89% Impervious Runoff Depth=0.93"
Flow Length=290' Tc=11.5 min CN=82 Runoff=0.45 cfs 0.026 af

Subcatchment15H: WS 15H Runoff Area=18.929 ac 0.74% Impervious Runoff Depth=0.48"
Flow Length=3,396' Tc=48.8 min CN=72 Runoff=4.31 cfs 0.753 af

Subcatchment64S: WS 13A Runoff Area=2.849 ac 0.00% Impervious Runoff Depth=0.72"
Flow Length=612' Tc=15.1 min CN=78 Runoff=2.50 cfs 0.172 af

Subcatchment65S: WS 13B Runoff Area=1.525 ac 34.36% Impervious Runoff Depth=0.98"
Flow Length=331' Tc=1.3 min CN=83 Runoff=2.95 cfs 0.125 af

Subcatchment66S: WS 13C Runoff Area=2.469 ac 36.45% Impervious Runoff Depth=0.87"
Flow Length=409' Tc=8.9 min CN=81 Runoff=3.37 cfs 0.179 af

SubcatchmentR16: R16 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.21 cfs 0.058 af

SubcatchmentR17A: R17A Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=81 Runoff=1.51 cfs 0.073 af

SubcatchmentR17B: R17B Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=81 Runoff=1.51 cfs 0.073 af

SubcatchmentR18: R18 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=1.04"
Tc=6.0 min CN=84 Runoff=1.54 cfs 0.074 af

SubcatchmentR19: R19 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=1.37 cfs 0.066 af

SubcatchmentR20: R20 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=81 Runoff=1.28 cfs 0.062 af

SubcatchmentR22: R22 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR23: R23 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR24: R24 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.61 cfs 0.078 af

SubcatchmentR25: R25 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR26: R26 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR27: R27 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR28: R28 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR29: R29 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR30: R30 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR31: R31 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR32: R32 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR33: R33 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=0.63 cfs 0.030 af

SubcatchmentR34: R34 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR35: R35 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR36: R36 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR37: R37 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR38: R38 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR39: R39 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.04"
Tc=6.0 min CN=84 Runoff=1.28 cfs 0.061 af

SubcatchmentR40: R40 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=0.98"
Tc=6.0 min CN=83 Runoff=1.20 cfs 0.058 af

SubcatchmentR41: R41 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR42: R42 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR43: R43 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=1.13 cfs 0.054 af

SubcatchmentR44: R44 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=1.04"
Tc=6.0 min CN=84 Runoff=1.27 cfs 0.061 af

SubcatchmentR45: R45 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR46: R46 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR47: R47 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR48: R48 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR49: R49 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR50: R50 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

Reach 17R: stream Avg. Flow Depth=0.21' Max Vel=5.16 fps Inflow=4.61 cfs 1.079 af
n=0.050 L=204.0' S=0.2696 '/' Capacity=62.68 cfs Outflow=4.59 cfs 1.079 af

Reach 19R: stream Avg. Flow Depth=0.34' Max Vel=5.61 fps Inflow=4.40 cfs 0.995 af
n=0.050 L=254.0' S=0.2087 '/' Capacity=63.50 cfs Outflow=4.38 cfs 0.995 af

Reach 23R: ditch Avg. Flow Depth=0.24' Max Vel=4.44 fps Inflow=3.54 cfs 0.733 af
n=0.050 L=550.0' S=0.1727 '/' Capacity=38.44 cfs Outflow=3.51 cfs 0.733 af

Reach 24R: ditch Avg. Flow Depth=0.25' Max Vel=3.72 fps Inflow=3.25 cfs 0.607 af
n=0.069 L=400.0' S=0.2375 '/' Capacity=163.35 cfs Outflow=3.21 cfs 0.607 af

Reach 29R: stream Avg. Flow Depth=0.72' Max Vel=6.00 fps Inflow=16.24 cfs 4.043 af
n=0.050 L=645.0' S=0.0946 '/' Capacity=100.62 cfs Outflow=16.04 cfs 4.043 af

Reach 32R: dead end stream Avg. Flow Depth=0.34' Max Vel=5.17 fps Inflow=5.87 cfs 1.874 af
n=0.050 L=770.0' S=0.1610 '/' Capacity=76.81 cfs Outflow=5.85 cfs 1.874 af

Reach 34R: stream Avg. Flow Depth=0.34' Max Vel=4.97 fps Inflow=5.62 cfs 1.501 af
n=0.050 L=370.0' S=0.1486 '/' Capacity=73.80 cfs Outflow=5.61 cfs 1.501 af

Reach 35R: flow in wetland Avg. Flow Depth=0.23' Max Vel=1.64 fps Inflow=4.64 cfs 1.100 af
n=0.100 L=600.0' S=0.0917 '/' Capacity=53.58 cfs Outflow=4.56 cfs 1.100 af

Reach 39R: stream Avg. Flow Depth=0.16' Max Vel=3.30 fps Inflow=2.48 cfs 0.529 af
n=0.050 L=1,100.0' S=0.1527 '/' Capacity=161.10 cfs Outflow=2.21 cfs 0.529 af

Reach 40R: stream Avg. Flow Depth=0.49' Max Vel=5.42 fps Inflow=18.06 cfs 3.038 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=17.10 cfs 3.038 af

Reach 42R: stream Avg. Flow Depth=0.35' Max Vel=5.52 fps Inflow=10.64 cfs 1.938 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=10.21 cfs 1.938 af

Reach 45R: flow in wetland Avg. Flow Depth=0.44' Max Vel=2.97 fps Inflow=9.51 cfs 1.402 af
n=0.100 L=1,200.0' S=0.1442 '/' Capacity=37.72 cfs Outflow=9.06 cfs 1.402 af

Reach 102R: stream Avg. Flow Depth=0.95' Max Vel=6.27 fps Inflow=77.55 cfs 16.925 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=77.33 cfs 16.924 af

Reach 103R: stream Avg. Flow Depth=0.67' Max Vel=5.87 fps Inflow=33.97 cfs 5.854 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=33.90 cfs 5.854 af

Reach 104R: stream Avg. Flow Depth=0.71' Max Vel=6.86 fps Inflow=42.52 cfs 10.346 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=42.43 cfs 10.346 af

Reach 108R: stream Avg. Flow Depth=0.25' Max Vel=4.37 fps Inflow=9.57 cfs 1.435 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=9.15 cfs 1.435 af

Reach 110R: stream Avg. Flow Depth=0.70' Max Vel=7.97 fps Inflow=37.43 cfs 7.769 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=37.32 cfs 7.769 af

Reach 111R: upperstream Avg. Flow Depth=0.25' Max Vel=4.59 fps Inflow=3.75 cfs 0.711 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=3.73 cfs 0.711 af

Reach 112R: stream Avg. Flow Depth=0.27' Max Vel=4.91 fps Inflow=7.91 cfs 1.214 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=6.61 cfs 1.214 af

Reach 113R: ditch Avg. Flow Depth=0.57' Max Vel=3.11 fps Inflow=4.59 cfs 1.079 af
n=0.069 L=245.0' S=0.0694 '/' Capacity=46.73 cfs Outflow=4.57 cfs 1.079 af

Pond 10P: new 36 Peak Elev=0.87' Inflow=5.39 cfs 1.263 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0300 '/' Outflow=5.39 cfs 1.263 af

Pond 12P: new 48 Peak Elev=1.55' Inflow=19.02 cfs 4.397 af
48.0" Round Culvert n=0.013 L=50.0' S=0.0560 '/' Outflow=19.02 cfs 4.397 af

Pond 16P: trunk line from condos Peak Elev=1,713.58' Inflow=11.01 cfs 0.522 af
30.0" Round Culvert n=0.013 L=700.0' S=0.0257 '/' Outflow=11.01 cfs 0.522 af

Pond 18P: Culvert 5 - Trail Inflow=4.61 cfs 1.079 af
Primary=4.61 cfs 1.079 af

Pond 20P: road culvert Peak Elev=1,774.45' Inflow=4.40 cfs 0.995 af
72.0" Round Culvert w/ 24.0" inside fill n=0.025 L=50.0' S=0.0200 '/' Outflow=4.40 cfs 0.995 af

Pond 21P: Pipe Down Slope Peak Elev=1,812.74' Storage=0.001 af Inflow=3.77 cfs 0.916 af
48.0" Round Culvert n=0.025 L=100.0' S=0.3200 '/' Outflow=3.77 cfs 0.916 af

Pond 22P: Pipe Down Slope Peak Elev=1,822.66' Inflow=3.77 cfs 0.916 af
48.0" Round Culvert n=0.025 L=100.0' S=0.0400 '/' Outflow=3.77 cfs 0.916 af

Pond 25P: road culvert Inflow=1.76 cfs 0.199 af
Primary=1.76 cfs 0.199 af

Pond 26P: road culvert Inflow=1.37 cfs 0.125 af
Primary=1.37 cfs 0.125 af

Pond 28P: road culvert Inflow=3.54 cfs 0.733 af
Primary=3.54 cfs 0.733 af

Pond 30P: Culvert 4 -Trail Inflow=8.66 cfs 1.164 af
Primary=8.66 cfs 1.164 af

Pond 31P: Trail Culvert Peak Elev=1,626.97' Inflow=7.83 cfs 2.544 af
72.0" Round Culvert n=0.025 L=300.0' S=0.0533 '/' Outflow=7.83 cfs 2.544 af

Pond 33P: Culvert 12 -Road Inflow=5.87 cfs 1.874 af
Primary=5.87 cfs 1.874 af

Pond 36P: trail culvert Inflow=4.64 cfs 1.100 af
Primary=4.64 cfs 1.100 af

Pond 37P: Road E Culvert Inflow=5.54 cfs 1.425 af
Primary=5.54 cfs 1.425 af

Pond 38P: Road A Culvert Inflow=4.42 cfs 0.957 af
Primary=4.42 cfs 0.957 af

Pond 41P: Culvert 3 - Trail 3 Inflow=18.06 cfs 3.038 af
Primary=18.06 cfs 3.038 af

Pond 43P: Culvert 11 -Trail 3 Inflow=9.87 cfs 1.738 af
Primary=9.87 cfs 1.738 af

Pond 44P: Culvert 13 -Road A Inflow=9.47 cfs 1.336 af
Primary=9.47 cfs 1.336 af

Pond 105P: Culvert 1 - Trail Inflow=42.02 cfs 9.440 af
Primary=42.02 cfs 9.440 af

Pond 106P: Culvert 2- Trail 2 Inflow=33.97 cfs 5.854 af
Primary=33.97 cfs 5.854 af

Pond 107P: Culvert 10 -Trail 2 Inflow=9.57 cfs 1.435 af
Primary=9.57 cfs 1.435 af

Pond 109P: Culvert 9-Trail Crossing Inflow=17.93 cfs 4.026 af
Primary=17.93 cfs 4.026 af

Pond P1: Condos Complex Wet Pond Peak Elev=1,685.50' Storage=83,490 cf Inflow=17.49 cfs 0.998 af
Primary=0.37 cfs 0.991 af Secondary=0.00 cfs 0.000 af Outflow=0.37 cfs 0.991 af

Pond P11: Parking Lot G Wet Pond Peak Elev=1,535.90' Storage=82,226 cf Inflow=18.18 cfs 0.846 af
Primary=0.14 cfs 0.804 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.804 af

Pond P12: Drop-off Parking Lot Soil Filter Peak Elev=1,471.09' Storage=11,568 cf Inflow=5.19 cfs 0.341 af
Primary=0.08 cfs 0.341 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.341 af

Pond P13: Parking Lot H Wet Pond Peak Elev=1,568.07' Storage=23,266 cf Inflow=6.60 cfs 0.283 af
Primary=0.10 cfs 0.282 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.282 af

Pond P14: Timbers 1-7 Wet Pond Peak Elev=1,722.13' Storage=45,960 cf Inflow=11.38 cfs 0.486 af
Primary=0.17 cfs 0.482 af Secondary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.482 af

Pond P15: Timbers 8-10 Soil Filter Peak Elev=2,086.34' Storage=3,190 cf Inflow=2.45 cfs 0.105 af
Primary=0.05 cfs 0.105 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.105 af

Pond P16: Timbers 11-14 Soil Filter Peak Elev=2,122.79' Storage=5,057 cf Inflow=3.56 cfs 0.168 af
Primary=0.07 cfs 0.168 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.168 af

Pond P6: Lot R43 Soil Filter Peak Elev=1,825.68' Storage=2,997 cf Inflow=1.59 cfs 0.104 af
Primary=0.05 cfs 0.118 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.118 af

Pond P7: R40 Gravel Wetland Peak Elev=1,880.77' Storage=11,351 cf Inflow=2.24 cfs 0.255 af
Primary=0.04 cfs 0.251 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.251 af

Pond RG 16: Large Rain Garden Peak Elev=2,102.47' Storage=1,612 cf Inflow=1.21 cfs 0.058 af
Primary=0.04 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.058 af

Pond RG 17A: Large Rain Garden Peak Elev=2,103.05' Storage=2,035 cf Inflow=1.51 cfs 0.073 af
Primary=0.04 cfs 0.073 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.073 af

Pond RG 17B: Large Rain Garden Peak Elev=2,103.05' Storage=2,035 cf Inflow=1.51 cfs 0.073 af
Primary=0.04 cfs 0.073 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.073 af

Pond RG 18: Large Rain Garden Peak Elev=2,203.09' Storage=2,102 cf Inflow=1.54 cfs 0.074 af
Primary=0.04 cfs 0.074 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.074 af

Pond RG 19: Large Rain Garden Peak Elev=2,202.83' Storage=1,844 cf Inflow=1.37 cfs 0.066 af
Primary=0.04 cfs 0.066 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.066 af

Pond RG 20: Large Rain Garden Peak Elev=2,102.64' Storage=1,724 cf Inflow=1.28 cfs 0.062 af
Primary=0.04 cfs 0.062 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.062 af

Pond RG 22: Medium Rain Garden Peak Elev=2,053.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 23: Medium Rain Garden Peak Elev=2,053.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 24: Large Rain Garden Peak Elev=2,053.17' Storage=2,243 cf Inflow=1.61 cfs 0.078 af
Primary=0.04 cfs 0.078 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.078 af

Pond RG 25: Small Rain Garden Peak Elev=2,052.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 26: Small Rain Garden Peak Elev=2,052.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 27: Small Rain Garden Peak Elev=1,902.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 28: Small Rain Garden Peak Elev=1,902.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 29: Small Rain Garden Peak Elev=1,902.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 30: Small Rain Garden Peak Elev=1,902.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 31: Medium Rain Garden Peak Elev=2,003.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 32: Medium Rain Garden Peak Elev=1,802.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 33: Small Rain Garden Peak Elev=1,802.29' Storage=725 cf Inflow=0.63 cfs 0.030 af
Primary=0.04 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.030 af

Pond RG 34: Small Rain Garden Peak Elev=1,802.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 35: Small Rain Garden Peak Elev=1,802.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 36: Small Rain Garden Peak Elev=1,822.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 37: Small Rain Garden Peak Elev=1,822.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 38: Medium Rain Garden Peak Elev=2,003.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 39: Medium Rain Garden Peak Elev=1,903.06' Storage=1,662 cf Inflow=1.28 cfs 0.061 af
Primary=0.04 cfs 0.061 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.061 af

Pond RG 40: Medium Rain Garden Peak Elev=1,902.94' Storage=1,554 cf Inflow=1.20 cfs 0.058 af
Primary=0.04 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.058 af

Pond RG 41: Small Rain Garden Peak Elev=1,802.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 42: Medium Rain Garden Peak Elev=1,803.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 43: Medium Rain Garden Peak Elev=1,752.76' Storage=1,457 cf Inflow=1.13 cfs 0.054 af
Primary=0.04 cfs 0.054 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.054 af

Pond RG 44: Medium Rain Garden Peak Elev=1,753.06' Storage=1,659 cf Inflow=1.27 cfs 0.061 af
Primary=0.04 cfs 0.061 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.061 af

Pond RG 45: Medium Rain Garden Peak Elev=1,752.41' Storage=1,271 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 46: Medium Rain Garden Peak Elev=1,752.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 47: Medium Rain Garden Peak Elev=1,752.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 48: Medium Rain Garden Peak Elev=1,852.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 49: Medium Rain Garden Peak Elev=1,852.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 50: Medium Rain Garden Peak Elev=1,852.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Link SP1: Inflow=79.15 cfs 17.300 af
Primary=79.15 cfs 17.300 af

Link SP10:
Primary=0.00 cfs 0.000 af

Link SP11: Inflow=4.25 cfs 0.397 af
Primary=4.25 cfs 0.397 af

Link SP12: Inflow=5.39 cfs 1.263 af
Primary=5.39 cfs 1.263 af

Link SP13: Inflow=0.73 cfs 1.017 af
Primary=0.73 cfs 1.017 af

Link SP2: Inflow=0.89 cfs 0.077 af
Primary=0.89 cfs 0.077 af

Link SP3: Inflow=0.27 cfs 0.354 af
Primary=0.27 cfs 0.354 af

Link SP4: Inflow=20.49 cfs 3.285 af
Primary=20.49 cfs 3.285 af

Link SP5: Inflow=1.34 cfs 0.133 af
Primary=1.34 cfs 0.133 af

Link SP6: Inflow=19.02 cfs 4.397 af
Primary=19.02 cfs 4.397 af

Link SP7: Inflow=0.83 cfs 0.053 af
Primary=0.83 cfs 0.053 af

Link SP8: Inflow=0.43 cfs 0.025 af
Primary=0.43 cfs 0.025 af

Link SP9: Inflow=0.20 cfs 0.011 af
Primary=0.20 cfs 0.011 af

Total Runoff Area = 515.814 ac Runoff Volume = 28.357 af Average Runoff Depth = 0.66"
93.10% Pervious = 480.225 ac 6.90% Impervious = 35.589 ac

Summary for Subcatchment 1: WS 1

Runoff = 1.27 cfs @ 12.57 hrs, Volume= 0.202 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.019	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.414	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.134	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.567	77	Weighted Average
3.548		99.47% Pervious Area
0.019		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	37	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	102	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	150	0.0700	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	133	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00' n= 0.050
0.8	505	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00'

n= 0.050

51.7	1,065	Total

Summary for Subcatchment 1-1: WS 1-1

Runoff = 1.02 cfs @ 12.24 hrs, Volume= 0.103 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.863	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.472	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.479	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.814	77	Weighted Average
1.814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	105	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	60	0.4700	1.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	328	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
27.3	593	Total			

Summary for Subcatchment 1-2: WS 1-2

Runoff = 2.25 cfs @ 12.05 hrs, Volume= 0.138 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.685	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.351	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.002	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.130	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.114	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.282	78	Weighted Average
2.280		99.91% Pervious Area
0.002		0.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	194	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	53	0.4900	1.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	327	0.1000	13.40	563.00	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
12.0	674	Total			

Summary for Subcatchment 1-3: WS 1-3

Runoff = 4.35 cfs @ 12.28 hrs, Volume= 0.472 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.319	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.938	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
4.092	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
8.349	77	Weighted Average
8.349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
3.4	596	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.1	585	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.5	1,281	Total			

Summary for Subcatchment 1-4: WS 1-4

Runoff = 11.32 cfs @ 12.30 hrs, Volume= 1.286 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.284	70	Existing Woods, Good, HSG C
8.316	77	Existing Woods, Good, HSG D
0.588	70	Proposed Woods, Good, HSG C
1.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.088	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.085	71	Proposed meadow, ski trail, HSG C
6.341	78	Proposed meadow, ski trail, HSG D
0.360	71	Proposed meadow, ski lift, HSG C
2.079	78	Proposed meadow, ski lift, HSG D
24.316	76	Weighted Average
24.228		99.64% Pervious Area
0.088		0.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.8	294	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	760	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	482	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	447	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	637	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	138	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
31.6	2,809	Total			

Summary for Subcatchment 1-5: WS 1-5

Runoff = 13.13 cfs @ 12.73 hrs, Volume= 2.620 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.002	98	Untreated existing impervious, HSG C
0.341	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
4.136	71	Existing meadow, non-grazed, HSG C
6.492	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
23.027	70	Existing Woods, Good, HSG C
11.528	77	Existing Woods, Good, HSG D
2.098	70	Proposed Woods, Good, HSG C
0.523	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.131	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.542	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
7.617	71	Proposed meadow, ski trail, HSG C
4.678	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.115	73	Weighted Average
60.641		99.22% Pervious Area
0.474		0.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	361	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.3	252	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.6	459	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	334	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
61.0	6,226	Total			

Summary for Subcatchment 1-6: WS 1-6

Runoff = 2.45 cfs @ 11.91 hrs, Volume= 0.105 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.022	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.175	98	Proposed impervious to be treated, HSG C
0.342	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.330	71	Proposed developed meadow to be treated, HSG C
0.334	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.209	84	Weighted Average
0.692		57.24% Pervious Area
0.517		42.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	33	0.0300	1.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	51	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.6	325	0.1000	9.32	7.32	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
1.5	409	Total			

Summary for Subcatchment 1-7: WS 1-7

Runoff = 9.57 cfs @ 12.47 hrs, Volume= 1.435 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
10.166	70	Existing Woods, Good, HSG C
8.946	77	Existing Woods, Good, HSG D
1.118	70	Proposed Woods, Good, HSG C
1.643	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.068	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.838	71	Proposed meadow, ski trail, HSG C
5.370	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
31.149	74	Weighted Average
31.081		99.78% Pervious Area
0.068		0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.2700	0.29		**Sheet Flow,** n= 0.240 P2= 2.40"
1.0	229	0.2700	3.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	216	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	483	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	251	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	311	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	863	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	956	0.2100	7.19	21.56	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.1	413	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.8	509	0.1500	10.18	91.58	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
43.2	4,331	Total			

Summary for Subcatchment 1-8: WS 1-8

Runoff = 18.71 cfs @ 12.59 hrs, Volume= 3.133 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.004	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.012	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
9.906	70	Existing Woods, Good, HSG C
17.781	77	Existing Woods, Good, HSG D
2.274	70	Proposed Woods, Good, HSG C
3.491	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.042	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
8.051	71	Proposed meadow, ski trail, HSG C
18.519	78	Proposed meadow, ski trail, HSG D
2.211	71	Proposed meadow, ski lift, HSG C
1.103	78	Proposed meadow, ski lift, HSG D
63.400	75	Weighted Average
63.354		99.93% Pervious Area
0.046		0.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.2900	0.29		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.1	249	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	274	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	353	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	277	0.2500	7.84	23.52	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
5.7	374	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	462	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	579	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	294	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	639	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	363	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
1.3	806	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
52.2	4,770	Total			

Summary for Subcatchment 1A: WS 1A

Runoff = 1.68 cfs @ 12.25 hrs, Volume= 0.174 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.076	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050
28.5	821	Total			

Summary for Subcatchment 1B: WS 1B

Runoff = 5.93 cfs @ 12.10 hrs, Volume= 0.423 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.425	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.072	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
5.568	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.084	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.429	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.578	79	Weighted Average
6.069		92.26% Pervious Area
0.509		7.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.7	336	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.7	339	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	336	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	278	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	283	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.3	118	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.4	164	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	83	0.1400	9.87	29.62	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.3	505	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
16.6	2,480	Total			

Summary for Subcatchment 1B1: WS 1B1 - Lot G

Runoff = 4.85 cfs @ 11.93 hrs, Volume= 0.206 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.007	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.765	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.438	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.030	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.385	84	Weighted Average
1.620		67.92% Pervious Area
0.765		32.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.5	81	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	304	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.2	485	Total			

Summary for Subcatchment 1C: WS 1C

Runoff = 1.84 cfs @ 12.18 hrs, Volume= 0.164 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.334	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.260	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.053	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.261	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.908	77	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0600	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	122	0.0600	1.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	46	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	221	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	154	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	283	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
2.0	88	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.9	1,014	Total			

Summary for Subcatchment 1C1: WS 1C1

Runoff = 16.06 cfs @ 12.12 hrs, Volume= 1.199 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
3.283	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
3.459	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.788	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.702	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.998	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
15.551	82	Weighted Average
12.268		78.89% Pervious Area
3.283		21.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.5	172	0.1500	6.24		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.7	164	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	157	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.9	350	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	219	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	251	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	316	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	73	0.1900	11.50	34.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	300	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	179	0.0200	3.73	11.20	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.0	342	0.0500	5.90	17.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
18.9	2,648	Total			

Summary for Subcatchment 1C2: WS 1C2- Ex lot E

Runoff = 13.62 cfs @ 11.96 hrs, Volume= 0.639 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
3.136	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.703	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.869	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.211	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.919	88	Weighted Average
2.783		47.02% Pervious Area
3.136		52.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0500	1.72		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	90	0.0500	3.60		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	114	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	356	0.0300	4.57	13.71	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.2	195	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	31	0.3900	10.05		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
5.2	886	Total			

Summary for Subcatchment 1D: WS 1D- Ex Timbers

Runoff = 19.68 cfs @ 12.60 hrs, Volume= 3.261 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
4.355	98	Untreated existing impervious, HSG C
1.531	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
13.379	71	Existing meadow, non-grazed, HSG C
10.031	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
16.365	70	Existing Woods, Good, HSG C
13.468	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.473	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.199	98	Untreated proposed impervious, HSG D
0.067	71	Proposed developed meadow, non-grazed, HSG C
1.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.717	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.650	76	Weighted Average
55.557		90.12% Pervious Area
6.093		9.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	60	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	130	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	182	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	394	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	298	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	183	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	230	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	254	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	159	0.1300	9.31	130.40	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	160	0.1100	8.57	119.95	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
2.2	165	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	245	0.2600	1.27		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	192	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.1	231	0.1300	29.21	408.97	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.022
4.5	280	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	134	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	334	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	168	0.0800	16.81	235.27	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
1.1	398	0.0100	5.94	83.18	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.5	334	0.0400	11.88	166.36	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.2	176	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00'

n= 0.050 Mountain streams w/large boulders

53.2 4,707 Total

Summary for Subcatchment 1D1: WS 1D1

Runoff = 11.38 cfs @ 11.94 hrs, Volume= 0.486 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.085	98	Untreated existing impervious, HSG C
0.067	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.162	71	Existing meadow, non-grazed, HSG C
0.056	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.786	70	Existing Woods, Good, HSG C
0.665	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
1.703	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.200	71	Proposed developed meadow, non-grazed, HSG C
0.811	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.003	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
7.555	79	Weighted Average
5.683		75.22% Pervious Area
1.872		24.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.0	19	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	69	0.0600	3.67		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	427	0.1200	13.38	23.65	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
0.2	316	0.1900	31.50	125.99	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.016 Asphalt, rough
0.1	118	0.2400	22.93	72.04	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.020 Corrugated PE, corrugated interior
0.6	372	0.1500	10.92	43.69	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.041 Riprap, 2-inch
2.4	1,421	Total			

Summary for Subcatchment 1D2: WS 1D2

Runoff = 2.63 cfs @ 12.08 hrs, Volume= 0.192 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.065	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.137	70	Existing Woods, Good, HSG C
0.049	77	Existing Woods, Good, HSG D
0.375	70	Proposed Woods, Good, HSG C
0.139	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.072	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
2.422	71	Proposed meadow, ski trail, HSG C
0.552	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.819	72	Weighted Average
4.811		99.83% Pervious Area
0.008		0.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
6.2	1,123	0.1890	3.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	1,223	Total			

Summary for Subcatchment 1D3: WS 1D3

Runoff = 2.28 cfs @ 12.00 hrs, Volume= 0.121 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.223	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.937	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.995	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.106	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.363	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.624	74	Weighted Average
2.295		87.46% Pervious Area
0.329		12.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	93	0.0500	1.69		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.5	259	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	220	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.8	70	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	89	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.2	731	Total			

Summary for Subcatchment 1D4: WS 1D4

Runoff = 2.20 cfs @ 11.99 hrs, Volume= 0.110 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.110	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.330	71	Existing meadow, non-grazed, HSG C
0.074	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.870	70	Existing Woods, Good, HSG C
0.224	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.117	98	Untreated proposed impervious, HSG C
0.063	98	Untreated proposed impervious, HSG D
0.185	71	Proposed developed meadow, non-grazed, HSG C
0.061	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.071	76	Weighted Average
1.744		84.21% Pervious Area
0.327		15.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.3	603	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	603	0.1300	8.26	99.08	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	1,306	Total			

Summary for Subcatchment 1D5: Untreated from Timbers (1D5)

Runoff = 3.94 cfs @ 11.94 hrs, Volume= 0.169 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.044	70	Existing Woods, Good, HSG C
0.402	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.017	98	Untreated proposed impervious, HSG C
0.390	98	Untreated proposed impervious, HSG D
0.199	71	Proposed developed meadow, non-grazed, HSG C
1.200	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.186	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.466	80	Weighted Average
2.059		83.50% Pervious Area
0.407		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	87	0.0700	1.91		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.3	105	0.1700	6.18		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.7	732	0.1000	7.24	86.90	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
2.8	924	Total			

Summary for Subcatchment 1D6: WS 1D6

Runoff = 3.56 cfs @ 11.96 hrs, Volume= 0.168 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.103	98	Proposed impervious to be treated, HSG C
0.537	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.127	71	Proposed developed meadow to be treated, HSG C
1.062	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.829	85	Weighted Average
1.189		65.01% Pervious Area
0.640		34.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	66	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	89	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	310	0.0600	11.11	8.73	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
5.4	465	Total			

Summary for Subcatchment 1D7: WS 1D7

Runoff = 3.68 cfs @ 12.46 hrs, Volume= 0.543 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.084	71	Existing meadow, non-grazed, HSG C
3.608	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.198	70	Existing Woods, Good, HSG C
1.644	77	Existing Woods, Good, HSG D
0.169	70	Proposed Woods, Good, HSG C
0.253	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.036	98	Untreated proposed impervious, HSG D
0.091	71	Proposed developed meadow, non-grazed, HSG C
0.164	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.288	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.787	74	Weighted Average
11.743		99.63% Pervious Area
0.044		0.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	89	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.4	228	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	185	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	217	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	273	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	293	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	264	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	251	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	300	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	194	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.2200	10.15	30.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
42.2	2,532	Total			

Summary for Subcatchment 2: WS 2

Runoff = 0.89 cfs @ 12.17 hrs, Volume= 0.077 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.070	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.048	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.012	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.275	78	Weighted Average
1.205		94.51% Pervious Area
0.070		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	35	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.7	242	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	176	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	129	0.0500	1.10	3.30	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.220
22.5	582	Total			

Summary for Subcatchment 2A: WS 2A

Runoff = 4.94 cfs @ 11.93 hrs, Volume= 0.213 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.010	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.002	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.910	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.162	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.084	87	Weighted Average
1.164		55.85% Pervious Area
0.920		44.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.6	457	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.8	557	Total			

Summary for Subcatchment 3: WS 3

Runoff = 0.21 cfs @ 12.07 hrs, Volume= 0.013 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.032	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.103	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.172	82	Weighted Average
0.135		78.49% Pervious Area
0.037		21.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.4	115	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.2	189	Total			

Summary for Subcatchment 3A: WS 3A

Runoff = 1.25 cfs @ 12.26 hrs, Volume= 0.128 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.824	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.161	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.048	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.040	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.411	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.480	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.985	79	Weighted Average
1.876		94.51% Pervious Area
0.109		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.1	136	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	241	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	18	0.4400	1.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	159	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.7	160	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	161	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
29.5	928	Total			

Summary for Subcatchment 4: WS 4

Runoff = 3.81 cfs @ 12.06 hrs, Volume= 0.247 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.009	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.993	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.257	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.104	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.363	77	Weighted Average
4.354		99.79% Pervious Area
0.009		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.1	269	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	100	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	436	0.1100	24.47	2,741.07	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=8.00' Z= 1.0 '/' Top.W=22.00' n= 0.050 Mountain streams w/large boulders
13.2	905	Total			

Summary for Subcatchment 4A: WS 4A

Runoff = 17.48 cfs @ 12.05 hrs, Volume= 1.100 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.200	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.739	71	Existing meadow, non-grazed, HSG C
0.785	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.883	70	Existing Woods, Good, HSG C
9.946	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
2.111	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
3.715	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
20.801	76	Weighted Average
20.500		98.55% Pervious Area
0.301		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.1900	0.25		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	180	0.1900	3.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	2,562	0.1550	9.80	58.80	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
12.1	2,842	Total			

Summary for Subcatchment 4B: WS 4B

Runoff = 5.08 cfs @ 12.07 hrs, Volume= 0.337 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.813	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.603	70	Existing Woods, Good, HSG C
3.488	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
1.104	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.065	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.286	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.006	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.365	76	Weighted Average
6.300		98.98% Pervious Area
0.065		1.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	38	0.0500	1.42		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	20	0.4000	4.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	270	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	168	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
0.4	218	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
4.4	217	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	211	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
13.4	1,142	Total			

Summary for Subcatchment 4C: WS 4C

Runoff = 9.43 cfs @ 12.40 hrs, Volume= 1.263 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.029	71	Existing meadow, non-grazed, HSG C
1.907	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.687	70	Existing Woods, Good, HSG C
5.408	77	Existing Woods, Good, HSG D
1.340	70	Proposed Woods, Good, HSG C
2.614	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.039	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.885	71	Proposed developed meadow, non-grazed, HSG C
1.161	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.924	71	Proposed meadow, ski trail, HSG C
4.557	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
25.551	75	Weighted Average
25.512		99.85% Pervious Area
0.039		0.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	37	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	270	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	431	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	157	0.3800	1.54		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	702	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	262	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	740	0.2200	7.36	22.07	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
3.5	248	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	347	0.1600	9.96	59.74	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
38.4	3,294	Total			

Summary for Subcatchment 5: WS 5

Runoff = 1.34 cfs @ 12.23 hrs, Volume= 0.133 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.012	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.790	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.133	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.420	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.355	77	Weighted Average
2.343		99.49% Pervious Area
0.012		0.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.0	89	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	13.49	40.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.030 Stream, clean & straight
26.8	887	Total			

Summary for Subcatchment 6: WS 6

Runoff = 5.08 cfs @ 12.09 hrs, Volume= 0.354 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
4.020	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.108	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.595	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.493	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.257	77	Weighted Average
6.216		99.34% Pervious Area
0.041		0.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	93	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	201	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	261	0.1500	8.96	35.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.5	182	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.8	241	0.0500	5.17	20.68	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	71	0.0600	5.30	15.90	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
15.1	1,268	Total			

Summary for Subcatchment 6A: WS 6A

Runoff = 6.49 cfs @ 12.22 hrs, Volume= 0.635 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.089	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.276	71	Existing meadow, non-grazed, HSG C
0.174	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.354	70	Existing Woods, Good, HSG C
3.771	77	Existing Woods, Good, HSG D
0.560	70	Proposed Woods, Good, HSG C
0.935	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.108	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.241	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
1.571	71	Proposed meadow, ski trail, HSG C
2.925	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
12.004	76	Weighted Average
11.807		98.36% Pervious Area
0.197		1.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	73	0.3400	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.7	149	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	142	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.6	62	0.5500	1.85		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.1	1,603	0.1370	12.71	152.58	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=2.00' Z= 1.0 '/' Top.W=8.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.5	2,029	Total			

Summary for Subcatchment 6B: WS 6B

Runoff = 2.23 cfs @ 12.08 hrs, Volume= 0.154 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.744	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.972	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.006	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.722	77	Weighted Average
2.722		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	62	0.2500	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	47	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	340	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.8	449	Total			

Summary for Subcatchment 6C: WS 6C

Runoff = 1.22 cfs @ 12.29 hrs, Volume= 0.135 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.299	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.289	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.178	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.621	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.387	77	Weighted Average
2.387		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	29	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	87	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.1	281	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	96	0.0300	0.43		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
31.4	593	Total			

Summary for Subcatchment 7: WS 7

Runoff = 0.83 cfs @ 12.06 hrs, Volume= 0.053 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.056	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.774	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.042	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.872	78	Weighted Average
0.816		93.58% Pervious Area
0.056		6.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	92	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	253	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
13.0	518	Total			

Summary for Subcatchment 7A: WS 7A

Runoff = 6.60 cfs @ 11.93 hrs, Volume= 0.283 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.099	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.331	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.071	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.420	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.921	86	Weighted Average
1.751		59.95% Pervious Area
1.170		40.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	33	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	37	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	86	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	190	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.4	446	Total			

Summary for Subcatchment 7B: WS 7B

Runoff = 1.10 cfs @ 11.98 hrs, Volume= 0.053 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.040	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.084	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.066	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.696	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.886	78	Weighted Average
0.886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	51	0.1700	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	57	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	146	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	13	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	67	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.9	334	Total			

Summary for Subcatchment 7C: WS 7C

Runoff = 3.21 cfs @ 12.13 hrs, Volume= 0.259 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.488	70	Existing Woods, Good, HSG C
2.656	77	Existing Woods, Good, HSG D
0.242	70	Proposed Woods, Good, HSG C
0.547	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.074	71	Proposed developed meadow, non-grazed, HSG C
0.192	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.006	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.244	75	Weighted Average
5.205		99.26% Pervious Area
0.039		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.1	155	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	161	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	107	0.0400	4.58	54.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
0.5	407	0.1600	12.66	142.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.50' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
1.0	57	0.1400	0.94		**Shallow Concentrated Flow,**

Forest w/Heavy Litter Kv= 2.5 fps

18.3	929	Total

Summary for Subcatchment 7D: WS 7D

Runoff = 1.59 cfs @ 12.07 hrs, Volume= 0.104 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.662	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.493	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.107	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.362	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.624	79	Weighted Average
1.517		93.41% Pervious Area
0.107		6.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.2	419	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	76	0.0500	15.55	124.41	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
14.2	535	Total			

Summary for Subcatchment 7F: WS 7F

Runoff = 1.90 cfs @ 12.06 hrs, Volume= 0.122 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.051	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.495	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.003	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.001	71	Proposed developed meadow, non-grazed, HSG C
0.369	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.020	78	Weighted Average
1.916		94.85% Pervious Area
0.104		5.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.2	193	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	176	0.2700	13.65	122.86	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050 Mountain streams w/large boulders
13.2	443	Total			

Summary for Subcatchment 7G: WS 7G

Runoff = 1.46 cfs @ 12.35 hrs, Volume= 0.174 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.403	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.303	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.134	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.240	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.186	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.003	78	Proposed developed meadow to be treated, HSG D
0.046	71	Proposed meadow, ski trail, HSG C
0.382	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.700	79	Weighted Average
2.460		91.11% Pervious Area
0.240		8.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	52	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	327	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	181	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.2	266	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
36.7	926	Total			

Summary for Subcatchment 7H: WS 7H

Runoff = 1.52 cfs @ 12.00 hrs, Volume= 0.082 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.217	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.348	70	Existing Woods, Good, HSG C
0.348	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.028	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.100	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.350	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.002	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.781	74	Weighted Average
1.681		94.39% Pervious Area
0.100		5.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	100	0.0600	1.85		**Sheet Flow,** n= 0.011 P2= 2.40"
0.5	18	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	31	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	196	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	158	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	56	0.0900	6.49	19.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

7.7	559	Total

Summary for Subcatchment 8: WS 8

Runoff = 0.43 cfs @ 12.04 hrs, Volume= 0.025 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.066	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.277	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.001	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.344	81	Weighted Average
0.278		80.81% Pervious Area
0.066		19.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	327	Total			

Summary for Subcatchment 9: WS 9

Runoff = 0.20 cfs @ 12.04 hrs, Volume= 0.011 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.036	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.101	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.011	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.148	82	Weighted Average
0.112		75.68% Pervious Area
0.036		24.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	173	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.1	211	Total			

Summary for Subcatchment 10: WS 10

Runoff = 1.44 cfs @ 12.00 hrs, Volume= 0.074 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.332	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.208	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.513	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.228	78	Weighted Average
1.228		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	38	0.0900	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	84	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	106	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.6	307	Total			

Summary for Subcatchment 10A: WS 10A

Runoff = 2.12 cfs @ 12.16 hrs, Volume= 0.176 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.037	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.184	98	Untreated proposed impervious, HSG D
0.194	71	Proposed developed meadow, non-grazed, HSG C
1.430	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.172	71	Proposed meadow, ski trail, HSG C
0.891	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.911	78	Weighted Average
2.727		93.68% Pervious Area
0.184		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.2200	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	122	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	154	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	204	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
21.0	580	Total			

Summary for Subcatchment 10B: WS 10B

Runoff = 2.07 cfs @ 12.08 hrs, Volume= 0.151 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.056	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.721	70	Existing Woods, Good, HSG C
0.184	77	Existing Woods, Good, HSG D
0.941	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.296	71	Proposed developed meadow, non-grazed, HSG C
0.558	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
1.043	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.805	72	Weighted Average
3.801		99.89% Pervious Area
0.004		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	47	0.1400	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.9	50	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	55	0.5200	1.80		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.2	533	0.1200	7.50	22.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050 Mountain streams w/large boulders
13.4	685	Total			

Summary for Subcatchment 11: WS 11

Runoff = 1.71 cfs @ 12.17 hrs, Volume= 0.147 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.051	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.928	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.259	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.566	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.636	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.440	78	Weighted Average
2.389		97.91% Pervious Area
0.051		2.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	130	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	29	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	105	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	216	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
22.3	580	Total			

Summary for Subcatchment 11A: WS 11A

Runoff = 7.43 cfs @ 11.93 hrs, Volume= 0.330 af, Depth= 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.700	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.906	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.606	91	Weighted Average
0.906		34.77% Pervious Area
1.700		65.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	21	0.1000	1.66		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	70	0.3700	9.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.9	249	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.9	440	Total			

Summary for Subcatchment 11B: WS 11B

Runoff = 3.98 cfs @ 11.98 hrs, Volume= 0.192 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.772	98	Proposed impervious to be treated, HSG C
0.167	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.233	71	Proposed developed meadow to be treated, HSG C
0.316	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.488	82	Weighted Average
1.549		62.26% Pervious Area
0.939		37.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.4400	0.35		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	36	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	246	0.0200	3.24	38.86	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	382	Total			

Summary for Subcatchment 12: WS 12

Runoff = 2.97 cfs @ 12.05 hrs, Volume= 0.184 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.035	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.747	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.280	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.243	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.747	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.052	78	Weighted Average
3.017		98.85% Pervious Area
0.035		1.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.5	174	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	17	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	204	0.1700	9.95	49.77	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.050
1.0	245	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
12.4	740	Total			

Summary for Subcatchment 12A: WS 12A

Runoff = 1.96 cfs @ 11.93 hrs, Volume= 0.084 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.777	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.012	98	Untreated proposed impervious, HSG C
0.025	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.576	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.392	78	Weighted Average
1.355		97.34% Pervious Area
0.037		2.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	33	0.0600	1.48		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.4	87	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	254	0.1800	12.62	104.09	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.50' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	374	Total			

Summary for Subcatchment 12B: WS 12B

Runoff = 0.75 cfs @ 12.21 hrs, Volume= 0.079 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.082	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.046	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.995	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.846	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.973	72	Weighted Average
1.923		97.47% Pervious Area
0.050		2.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	304	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	307	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	90	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
23.8	801	Total			

Summary for Subcatchment 12C: WS 12C

Runoff = 0.50 cfs @ 12.07 hrs, Volume= 0.038 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.044	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.492	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.372	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.208	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.116	70	Weighted Average
1.116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.6	115	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	302	0.1400	19.66	78.65	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
12.7	476	Total			

Summary for Subcatchment 12D: WS 12D

Runoff = 2.17 cfs @ 12.06 hrs, Volume= 0.137 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.024	71	Existing meadow, non-grazed, HSG C
0.014	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.122	70	Existing Woods, Good, HSG C
0.558	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.432	98	Proposed impervious to be treated, HSG C
0.002	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.523	71	Proposed developed meadow to be treated, HSG C
0.323	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.998	80	Weighted Average
1.564		78.28% Pervious Area
0.434		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	82	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	171	0.3000	3.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	379	0.1200	24.09	192.74	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
13.3	681	Total			

Summary for Subcatchment 12E: WS 12E

Runoff = 1.00 cfs @ 12.05 hrs, Volume= 0.062 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.042	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.033	70	Existing Woods, Good, HSG C
0.921	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.020	71	Proposed developed meadow, non-grazed, HSG C
0.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.094	77	Weighted Average
1.094		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	71	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.2	101	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1500	26.94	215.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
12.0	302	Total			

Summary for Subcatchment 12F: WS 12F

Runoff = 1.37 cfs @ 12.20 hrs, Volume= 0.125 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.346	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.593	77	Existing Woods, Good, HSG D
0.159	70	Proposed Woods, Good, HSG C
0.120	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.223	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.377	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.257	71	Proposed meadow, ski trail, HSG C
0.001	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.076	78	Weighted Average
1.853		89.26% Pervious Area
0.223		10.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	31	0.6500	5.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	129	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	130	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	195	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	334	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
24.3	919	Total			

Summary for Subcatchment 12G: WS 12G

Runoff = 1.76 cfs @ 12.29 hrs, Volume= 0.199 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.007	71	Existing meadow, non-grazed, HSG C
0.073	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.090	70	Existing Woods, Good, HSG C
0.912	77	Existing Woods, Good, HSG D
0.662	70	Proposed Woods, Good, HSG C
0.331	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.148	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.205	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.949	71	Proposed meadow, ski trail, HSG C
0.650	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.029	75	Weighted Average
3.881		96.33% Pervious Area
0.148		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1800	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	127	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	83	0.5300	1.82		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	305	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	182	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	262	0.0300	2.90	11.61	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
0.2	83	0.1200	5.80	23.22	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.4	1,142	Total			

Summary for Subcatchment 13: WS 13

Runoff = 0.45 cfs @ 12.04 hrs, Volume= 0.026 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.074	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.118	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.146	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.338	82	Weighted Average
0.264		78.11% Pervious Area
0.074		21.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	36	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	254	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
11.5	290	Total			

Summary for Subcatchment 15H: WS 15H

Runoff = 4.31 cfs @ 12.56 hrs, Volume= 0.753 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.864	71	Existing meadow, non-grazed, HSG C
0.081	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
4.191	70	Existing Woods, Good, HSG C
2.039	77	Existing Woods, Good, HSG D
2.433	70	Proposed Woods, Good, HSG C
0.330	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.140	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
5.213	71	Proposed developed meadow, non-grazed, HSG C
0.038	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.193	71	Proposed meadow, ski trail, HSG C
0.407	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
18.929	72	Weighted Average
18.789		99.26% Pervious Area
0.140		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	358	0.2800	3.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.3	1,352	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	765	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.9	612	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	209	0.2500	26.28	105.11	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
48.8	3,396	Total			

Summary for Subcatchment 64S: WS 13A

Runoff = 2.50 cfs @ 12.09 hrs, Volume= 0.172 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.353	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.301	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.695	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.500	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.849	78	Weighted Average
2.849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.4	211	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	612	Total			

Summary for Subcatchment 65S: WS 13B

Runoff = 2.95 cfs @ 11.91 hrs, Volume= 0.125 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.086	70	Existing Woods, Good, HSG C
0.116	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.379	98	Proposed impervious to be treated, HSG C
0.145	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.383	71	Proposed developed meadow to be treated, HSG C
0.416	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.525	83	Weighted Average
1.001		65.64% Pervious Area
0.524		34.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0700	1.97		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.0700	5.37		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	88	0.1600	28.80	90.49	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.3	118	0.2000	7.01	21.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.3	331	Total			

Summary for Subcatchment 66S: WS 13C

Runoff = 3.37 cfs @ 12.01 hrs, Volume= 0.179 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.900	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.569	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.469	81	Weighted Average
1.569		63.55% Pervious Area
0.900		36.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	42	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	170	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.4	97	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	409	Total			

Summary for Subcatchment R16: R16

Runoff = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17A: R17A

Runoff = 1.51 cfs @ 11.98 hrs, Volume= 0.073 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.270	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.501	71	Proposed developed meadow to be treated, HSG C
0.149	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17B: R17B

Runoff = 1.51 cfs @ 11.98 hrs, Volume= 0.073 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.341	98	Proposed impervious to be treated, HSG C
0.009	98	Proposed impervious to be treated, HSG D
0.634	71	Proposed developed meadow to be treated, HSG C
0.016	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R18: R18

Runoff = 1.54 cfs @ 11.98 hrs, Volume= 0.074 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.097	98	Proposed impervious to be treated, HSG C
0.202	98	Proposed impervious to be treated, HSG D
0.178	71	Proposed developed meadow to be treated, HSG C
0.373	78	Proposed developed meadow to be treated, HSG D
0.850	84	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R19: R19

Runoff = 1.37 cfs @ 11.98 hrs, Volume= 0.066 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.219	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.404	71	Proposed developed meadow to be treated, HSG C
0.147	78	Proposed developed meadow to be treated, HSG D
0.850	82	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R20: R20

Runoff = 1.28 cfs @ 11.98 hrs, Volume= 0.062 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.281	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.519	71	Proposed developed meadow to be treated, HSG C
0.032	78	Proposed developed meadow to be treated, HSG D
0.849	81	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R22: R22

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R23: R23

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R24: R24

Runoff = 1.61 cfs @ 11.97 hrs, Volume= 0.078 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.001	98	Proposed impervious to be treated, HSG C
0.297	98	Proposed impervious to be treated, HSG D
0.002	71	Proposed developed meadow to be treated, HSG C
0.549	78	Proposed developed meadow to be treated, HSG D
0.849	85	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R25: R25

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R26: R26

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R27: R27

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R28: R28

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R29: R29

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R30: R30

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R31: R31

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R32: R32

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R33: R33

Runoff = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R34: R34

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R35: R35

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R36: R36

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R37: R37

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R38: R38

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R39: R39

Runoff = 1.28 cfs @ 11.98 hrs, Volume= 0.061 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.035	98	Proposed impervious to be treated, HSG C
0.195	98	Proposed impervious to be treated, HSG D
0.072	71	Proposed developed meadow to be treated, HSG C
0.403	78	Proposed developed meadow to be treated, HSG D
0.705	84	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R40: R40

Runoff = 1.20 cfs @ 11.98 hrs, Volume= 0.058 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.074	98	Proposed impervious to be treated, HSG C
0.155	98	Proposed impervious to be treated, HSG D
0.153	71	Proposed developed meadow to be treated, HSG C
0.322	78	Proposed developed meadow to be treated, HSG D
0.704	83	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R41: R41

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R42: R42

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R43: R43

Runoff = 1.13 cfs @ 11.98 hrs, Volume= 0.054 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.135	98	Proposed impervious to be treated, HSG C
0.095	98	Proposed impervious to be treated, HSG D
0.279	71	Proposed developed meadow to be treated, HSG C
0.196	78	Proposed developed meadow to be treated, HSG D
0.705	82	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R44: R44

Runoff = 1.27 cfs @ 11.98 hrs, Volume= 0.061 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.042	98	Proposed impervious to be treated, HSG C
0.187	98	Proposed impervious to be treated, HSG D
0.088	71	Proposed developed meadow to be treated, HSG C
0.387	78	Proposed developed meadow to be treated, HSG D
0.704	84	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R45: R45

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.198	98	Proposed impervious to be treated, HSG C
0.031	98	Proposed impervious to be treated, HSG D
0.410	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.704	80	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R46: R46

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R47: R47

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R48: R48

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R49: R49

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R50: R50

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 17R: stream

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 4.61 cfs @ 12.32 hrs, Volume= 1.079 af
Outflow = 4.59 cfs @ 12.34 hrs, Volume= 1.079 af, Atten= 0%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.16 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 2.6 min

Peak Storage= 182 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.21' , Surface Width= 4.42'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 62.68 cfs

4.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 204.0' Slope= 0.2696 '/'
Inlet Invert= 1,711.00', Outlet Invert= 1,656.00'

Summary for Reach 19R: stream

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 4.40 cfs @ 12.31 hrs, Volume= 0.995 af
Outflow = 4.38 cfs @ 12.33 hrs, Volume= 0.995 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.61 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 2.8 min

Peak Storage= 199 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 2.67'
Bank-Full Depth= 1.50' Flow Area= 5.3 sf, Capacity= 63.50 cfs

2.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 254.0' Slope= 0.2087 '/'
Inlet Invert= 1,770.00', Outlet Invert= 1,717.00'

Summary for Reach 23R: ditch

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 0.80" for 2-Year event
Inflow = 3.54 cfs @ 12.28 hrs, Volume= 0.733 af
Outflow = 3.51 cfs @ 12.34 hrs, Volume= 0.733 af, Atten= 1%, Lag= 3.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 1.08 fps, Avg. Travel Time= 8.5 min

Peak Storage= 437 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 3.49'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 38.44 cfs

3.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 550.0' Slope= 0.1727 '/'
Inlet Invert= 1,945.00', Outlet Invert= 1,850.00'

Summary for Reach 24R: ditch

Inflow Area = 9.146 ac, 15.86% Impervious, Inflow Depth = 0.80" for 2-Year event
Inflow = 3.25 cfs @ 12.24 hrs, Volume= 0.607 af
Outflow = 3.21 cfs @ 12.30 hrs, Volume= 0.607 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.72 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.06 fps, Avg. Travel Time= 6.3 min

Peak Storage= 348 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 3.99'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 163.35 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.2375 '/'
Inlet Invert= 2,015.00', Outlet Invert= 1,920.00'

Summary for Reach 29R: stream

Inflow Area = 70.584 ac, 10.64% Impervious, Inflow Depth > 0.69" for 2-Year event
Inflow = 16.24 cfs @ 12.20 hrs, Volume= 4.043 af
Outflow = 16.04 cfs @ 12.25 hrs, Volume= 4.043 af, Atten= 1%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.00 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.10 fps, Avg. Travel Time= 9.8 min

Peak Storage= 1,736 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.72' , Surface Width= 4.45'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 100.62 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 645.0' Slope= 0.0946 '/'
Inlet Invert= 1,596.00', Outlet Invert= 1,535.00'

Summary for Reach 32R: dead end stream

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 0.64" for 2-Year event
Inflow = 5.87 cfs @ 12.71 hrs, Volume= 1.874 af
Outflow = 5.85 cfs @ 12.78 hrs, Volume= 1.874 af, Atten= 0%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.17 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 12.0 min

Peak Storage= 871 cf @ 12.73 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 3.68'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 76.81 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 770.0' Slope= 0.1610 '/'
Inlet Invert= 1,760.00', Outlet Invert= 1,636.00'

Summary for Reach 34R: stream

Inflow Area = 29.454 ac, 9.31% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 5.62 cfs @ 12.68 hrs, Volume= 1.501 af
Outflow = 5.61 cfs @ 12.72 hrs, Volume= 1.501 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.97 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 4.9 min

Peak Storage= 418 cf @ 12.69 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 3.68'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 73.80 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 370.0' Slope= 0.1486 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,760.00'

Summary for Reach 35R: flow in wetland

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 0.54" for 2-Year event
Inflow = 4.64 cfs @ 12.56 hrs, Volume= 1.100 af
Outflow = 4.56 cfs @ 12.73 hrs, Volume= 1.100 af, Atten= 2%, Lag= 10.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.64 fps, Min. Travel Time= 6.1 min
Avg. Velocity = 0.37 fps, Avg. Travel Time= 27.1 min

Peak Storage= 1,668 cf @ 12.63 hrs
Average Depth at Peak Storage= 0.23' , Surface Width= 12.45'
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 53.58 cfs

12.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 600.0' Slope= 0.0917 '/'
Inlet Invert= 2,080.00', Outlet Invert= 2,025.00'

‡

Summary for Reach 39R: stream

Inflow Area = 7.320 ac, 16.54% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 2.48 cfs @ 12.09 hrs, Volume= 0.529 af
Outflow = 2.21 cfs @ 12.24 hrs, Volume= 0.529 af, Atten= 11%, Lag= 9.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.30 fps, Min. Travel Time= 5.6 min
Avg. Velocity = 1.03 fps, Avg. Travel Time= 17.8 min

Peak Storage= 743 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.16' , Surface Width= 4.32'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 161.10 cfs

4.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 8.00'
Length= 1,100.0' Slope= 0.1527 '/'
Inlet Invert= 1,780.00', Outlet Invert= 1,612.00'

Summary for Reach 40R: stream

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 18.06 cfs @ 12.06 hrs, Volume= 3.038 af
Outflow = 17.10 cfs @ 12.13 hrs, Volume= 3.038 af, Atten= 5%, Lag= 4.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.42 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 1.13 fps, Avg. Travel Time= 11.3 min

Peak Storage= 2,473 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.49' , Surface Width= 6.99'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 36.708 ac, 2.54% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 10.64 cfs @ 12.57 hrs, Volume= 1.938 af
Outflow = 10.21 cfs @ 12.78 hrs, Volume= 1.938 af, Atten= 4%, Lag= 12.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.52 fps, Min. Travel Time= 7.4 min
Avg. Velocity = 1.09 fps, Avg. Travel Time= 37.3 min

Peak Storage= 4,533 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.35' , Surface Width= 5.69'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 45R: flow in wetland

Inflow Area = 27.251 ac, 2.34% Impervious, Inflow Depth = 0.62" for 2-Year event
Inflow = 9.51 cfs @ 12.40 hrs, Volume= 1.402 af
Outflow = 9.06 cfs @ 12.60 hrs, Volume= 1.402 af, Atten= 5%, Lag= 12.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.97 fps, Min. Travel Time= 6.7 min
Avg. Velocity = 0.53 fps, Avg. Travel Time= 37.8 min

Peak Storage= 3,667 cf @ 12.48 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 7.77'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 37.72 cfs

6.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 1,200.0' Slope= 0.1442 '/'
Inlet Invert= 2,160.00', Outlet Invert= 1,987.00'

‡

Summary for Reach 102R: stream

Inflow Area = 321.776 ac, 5.78% Impervious, Inflow Depth > 0.63" for 2-Year event
Inflow = 77.55 cfs @ 12.64 hrs, Volume= 16.925 af
Outflow = 77.33 cfs @ 12.70 hrs, Volume= 16.924 af, Atten= 0%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.27 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 1.09 fps, Avg. Travel Time= 13.6 min

Peak Storage= 10,986 cf @ 12.67 hrs
Average Depth at Peak Storage= 0.95' , Surface Width= 13.91'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 33.97 cfs @ 12.58 hrs, Volume= 5.854 af
Outflow = 33.90 cfs @ 12.59 hrs, Volume= 5.854 af, Atten= 0%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.87 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 2.09 fps, Avg. Travel Time= 2.2 min

Peak Storage= 1,589 cf @ 12.58 hrs
Average Depth at Peak Storage= 0.67' , Surface Width= 9.33'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 191.143 ac, 9.36% Impervious, Inflow Depth > 0.65" for 2-Year event
Inflow = 42.52 cfs @ 12.66 hrs, Volume= 10.346 af
Outflow = 42.43 cfs @ 12.70 hrs, Volume= 10.346 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.86 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 6.6 min

Peak Storage= 3,066 cf @ 12.68 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 9.42'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 9.57 cfs @ 12.47 hrs, Volume= 1.435 af
Outflow = 9.15 cfs @ 12.69 hrs, Volume= 1.435 af, Atten= 4%, Lag= 13.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.37 fps, Min. Travel Time= 7.5 min
Avg. Velocity = 1.56 fps, Avg. Travel Time= 21.1 min

Peak Storage= 4,134 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 8.51'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 157.125 ac, 6.82% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 37.43 cfs @ 12.64 hrs, Volume= 7.769 af
Outflow = 37.32 cfs @ 12.71 hrs, Volume= 7.769 af, Atten= 0%, Lag= 4.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.97 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 1.44 fps, Avg. Travel Time= 13.6 min

Peak Storage= 5,505 cf @ 12.67 hrs
Average Depth at Peak Storage= 0.70' , Surface Width= 7.40'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 13.616 ac, 5.02% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 3.75 cfs @ 12.46 hrs, Volume= 0.711 af
Outflow = 3.73 cfs @ 12.52 hrs, Volume= 0.711 af, Atten= 1%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.59 fps, Min. Travel Time= 2.5 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 9.8 min

Peak Storage= 557 cf @ 12.48 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 3.50'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 21.986 ac, 10.30% Impervious, Inflow Depth = 0.66" for 2-Year event
Inflow = 7.91 cfs @ 11.96 hrs, Volume= 1.214 af
Outflow = 6.61 cfs @ 12.08 hrs, Volume= 1.214 af, Atten= 16%, Lag= 6.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.91 fps, Min. Travel Time= 4.2 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 17.7 min

Peak Storage= 1,741 cf @ 12.01 hrs
Average Depth at Peak Storage= 0.27' , Surface Width= 5.54'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

Summary for Reach 113R: ditch

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 4.59 cfs @ 12.34 hrs, Volume= 1.079 af
Outflow = 4.57 cfs @ 12.38 hrs, Volume= 1.079 af, Atten= 1%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.11 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 0.83 fps, Avg. Travel Time= 4.9 min

Peak Storage= 361 cf @ 12.35 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 3.14'
Bank-Full Depth= 2.00' Flow Area= 8.0 sf, Capacity= 46.73 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 245.0' Slope= 0.0694 '/'
Inlet Invert= 1,656.00', Outlet Invert= 1,639.00'

Summary for Pond 10P: new 36

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 5.39 cfs @ 12.06 hrs, Volume= 1.263 af
Outflow = 5.39 cfs @ 12.06 hrs, Volume= 1.263 af, Atten= 0%, Lag= 0.0 min
Primary = 5.39 cfs @ 12.06 hrs, Volume= 1.263 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 0.87' @ 12.06 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.10' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=5.33 cfs @ 12.06 hrs HW=0.86' (Free Discharge)
1=Culvert (Inlet Controls 5.33 cfs @ 3.16 fps)

Summary for Pond 12P: new 48

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 0.69" for 2-Year event
Inflow = 19.02 cfs @ 12.21 hrs, Volume= 4.397 af
Outflow = 19.02 cfs @ 12.21 hrs, Volume= 4.397 af, Atten= 0%, Lag= 0.0 min
Primary = 19.02 cfs @ 12.21 hrs, Volume= 4.397 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.55' @ 12.21 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**48.0" Round Culvert** L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0560 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=18.95 cfs @ 12.21 hrs HW=1.54' (Free Discharge)
1=Culvert (Inlet Controls 18.95 cfs @ 4.23 fps)

Summary for Pond 16P: trunk line from condos

Inflow Area = 5.094 ac, 51.81% Impervious, Inflow Depth = 1.23" for 2-Year event
Inflow = 11.01 cfs @ 11.94 hrs, Volume= 0.522 af
Outflow = 11.01 cfs @ 11.94 hrs, Volume= 0.522 af, Atten= 0%, Lag= 0.0 min
Primary = 11.01 cfs @ 11.94 hrs, Volume= 0.522 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,713.58' @ 11.94 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,712.00'	**30.0" Round Culvert** L= 700.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 1,712.00' / 1,694.00' S= 0.0257 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=10.78 cfs @ 11.94 hrs HW=1,713.56' (Free Discharge)
1=Culvert (Inlet Controls 10.78 cfs @ 3.35 fps)

Summary for Pond 18P: Culvert 5 - Trail

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 4.61 cfs @ 12.32 hrs, Volume= 1.079 af
Primary = 4.61 cfs @ 12.32 hrs, Volume= 1.079 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 20P: road culvert

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 4.40 cfs @ 12.31 hrs, Volume= 0.995 af
Outflow = 4.40 cfs @ 12.31 hrs, Volume= 0.995 af, Atten= 0%, Lag= 0.0 min
Primary = 4.40 cfs @ 12.31 hrs, Volume= 0.995 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,774.45' @ 12.31 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,774.00'	**72.0" Round Culvert w/ 24.0" inside fill** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,772.00' / 1,771.00' S= 0.0200 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 20.02 sf

Primary OutFlow Max=4.39 cfs @ 12.31 hrs HW=1,774.45' (Free Discharge)
1=Culvert (Inlet Controls 4.39 cfs @ 1.70 fps)

Summary for Pond 21P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 0.78" for 2-Year event
Inflow = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af
Outflow = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af, Atten= 0%, Lag= 0.2 min
Primary = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,812.74' @ 12.33 hrs Surf.Area= 0.001 ac Storage= 0.001 af

Plug-Flow detention time= 0.4 min calculated for 0.916 af (100% of inflow)
Center-of-Mass det. time= 0.4 min (1,103.6 - 1,103.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,812.00'	0.016 af	**8.00'D x 14.00'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	1,812.00'	**48.0" Round Culvert**

L= 100.0' CMP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 1,812.00' / 1,780.00' S= 0.3200 '/' Cc= 0.900
n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=3.73 cfs @ 12.33 hrs HW=1,812.74' (Free Discharge)
1=Culvert (Inlet Controls 3.73 cfs @ 2.32 fps)

Summary for Pond 22P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 0.78" for 2-Year event
Inflow = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af
Outflow = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af, Atten= 0%, Lag= 0.0 min
Primary = 3.77 cfs @ 12.33 hrs, Volume= 0.916 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,822.66' @ 12.33 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**48.0" Round Culvert**
			L= 100.0' CMP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 1,822.00' / 1,818.00' S= 0.0400 '/' Cc= 0.900
			n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=3.75 cfs @ 12.33 hrs HW=1,822.66' (Free Discharge)
1=Culvert (Inlet Controls 3.75 cfs @ 2.77 fps)

Summary for Pond 25P: road culvert

Inflow Area = 4.029 ac, 3.67% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 1.76 cfs @ 12.29 hrs, Volume= 0.199 af
Primary = 1.76 cfs @ 12.29 hrs, Volume= 0.199 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 26P: road culvert

Inflow Area = 2.076 ac, 10.74% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 1.37 cfs @ 12.20 hrs, Volume= 0.125 af
Primary = 1.37 cfs @ 12.20 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 28P: road culvert

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 0.80" for 2-Year event
Inflow = 3.54 cfs @ 12.28 hrs, Volume= 0.733 af
Primary = 3.54 cfs @ 12.28 hrs, Volume= 0.733 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 30P: Culvert 4 -Trail

Inflow Area = 19.324 ac, 7.29% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 8.66 cfs @ 12.23 hrs, Volume= 1.164 af
Primary = 8.66 cfs @ 12.23 hrs, Volume= 1.164 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 31P: Trail Culvert

Inflow Area = 47.453 ac, 10.39% Impervious, Inflow Depth > 0.64" for 2-Year event
Inflow = 7.83 cfs @ 12.14 hrs, Volume= 2.544 af
Outflow = 7.83 cfs @ 12.14 hrs, Volume= 2.544 af, Atten= 0%, Lag= 0.0 min
Primary = 7.83 cfs @ 12.14 hrs, Volume= 2.544 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,626.97' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,626.00'	**72.0" Round Culvert** L= 300.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,626.00' / 1,610.00' S= 0.0533 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 28.27 sf

Primary OutFlow Max=7.77 cfs @ 12.14 hrs HW=1,626.97' (Free Discharge)
1=Culvert (Inlet Controls 7.77 cfs @ 2.64 fps)

Summary for Pond 33P: Culvert 12 -Road

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 0.64" for 2-Year event
Inflow = 5.87 cfs @ 12.71 hrs, Volume= 1.874 af
Primary = 5.87 cfs @ 12.71 hrs, Volume= 1.874 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 36P: trail culvert

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 0.54" for 2-Year event
Inflow = 4.64 cfs @ 12.56 hrs, Volume= 1.100 af
Primary = 4.64 cfs @ 12.56 hrs, Volume= 1.100 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 37P: Road E Culvert

Inflow Area = 28.672 ac, 8.44% Impervious, Inflow Depth = 0.60" for 2-Year event
Inflow = 5.54 cfs @ 12.68 hrs, Volume= 1.425 af
Primary = 5.54 cfs @ 12.68 hrs, Volume= 1.425 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 38P: Road A Culvert

Inflow Area = 21.778 ac, 5.23% Impervious, Inflow Depth = 0.53" for 2-Year event
Inflow = 4.42 cfs @ 12.56 hrs, Volume= 0.957 af
Primary = 4.42 cfs @ 12.56 hrs, Volume= 0.957 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 41P: Culvert 3 - Trail 3

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 18.06 cfs @ 12.06 hrs, Volume= 3.038 af
Primary = 18.06 cfs @ 12.06 hrs, Volume= 3.038 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 43P: Culvert 11 -Trail 3

Inflow Area = 33.616 ac, 2.09% Impervious, Inflow Depth = 0.62" for 2-Year event
Inflow = 9.87 cfs @ 12.58 hrs, Volume= 1.738 af
Primary = 9.87 cfs @ 12.58 hrs, Volume= 1.738 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 44P: Culvert 13 -Road A

Inflow Area = 26.401 ac, 1.28% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 9.47 cfs @ 12.40 hrs, Volume= 1.336 af
Primary = 9.47 cfs @ 12.40 hrs, Volume= 1.336 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 105P: Culvert 1 - Trail

Inflow Area = 181.025 ac, 7.73% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 42.02 cfs @ 12.67 hrs, Volume= 9.440 af
Primary = 42.02 cfs @ 12.67 hrs, Volume= 9.440 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 106P: Culvert 2- Trail 2

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 33.97 cfs @ 12.58 hrs, Volume= 5.854 af
Primary = 33.97 cfs @ 12.58 hrs, Volume= 5.854 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 107P: Culvert 10 -Trail 2

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 9.57 cfs @ 12.47 hrs, Volume= 1.435 af
Primary = 9.57 cfs @ 12.47 hrs, Volume= 1.435 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 109P: Culvert 9-Trail Crossing

Inflow Area = 87.920 ac, 3.12% Impervious, Inflow Depth = 0.55" for 2-Year event
Inflow = 17.93 cfs @ 12.69 hrs, Volume= 4.026 af
Primary = 17.93 cfs @ 12.69 hrs, Volume= 4.026 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond P1: Condos Complex Wet Pond

Inflow Area = 11.937 ac, 34.04% Impervious, Inflow Depth = 1.00" for 2-Year event
Inflow = 17.49 cfs @ 11.95 hrs, Volume= 0.998 af
Outflow = 0.37 cfs @ 18.04 hrs, Volume= 0.991 af, Atten= 98%, Lag= 365.7 min
Primary = 0.37 cfs @ 18.04 hrs, Volume= 0.991 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,684.00' Surf.Area= 29,057 sf Storage= 54,189 cf
Peak Elev= 1,685.50' @ 18.04 hrs Surf.Area= 36,960 sf Storage= 83,490 cf (29,302 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 1,031.4 min (1,870.3 - 838.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,678.00'	54,189 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,684.00'	66,450 cf	**CPv (Irregular)** Listed below (Recalc)
		120,639 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,678.00	4,365	481.7	0	0	4,365
1,679.00	5,839	500.5	5,084	5,084	5,914
1,680.00	7,369	519.4	6,589	11,673	7,531
1,681.00	8,954	538.2	8,149	19,822	9,199
1,682.00	10,598	557.1	9,764	29,586	10,935
1,683.00	12,297	575.9	11,437	41,023	12,722
1,684.00	14,053	594.8	13,165	54,189	14,578

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,684.00	15,004	752.2	0	0	15,004
1,685.00	21,703	791.7	18,251	18,251	19,918
1,686.00	24,167	734.9	22,924	41,175	26,860
1,687.00	26,400	753.8	25,275	66,450	29,220

Device	Routing	Invert	Outlet Devices
#1	Primary	1,681.00'	**24.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,681.00' / 1,680.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,684.00'	**3.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,686.00'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,686.00'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.37 cfs @ 18.04 hrs HW=1,685.50' (Free Discharge)
└**1=Culvert** (Passes 0.37 cfs of 22.33 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.37 cfs @ 5.59 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,684.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P11: Parking Lot G Wet Pond

Inflow Area = 8.304 ac, 46.98% Impervious, Inflow Depth = 1.22" for 2-Year event
Inflow = 18.18 cfs @ 11.95 hrs, Volume= 0.846 af
Outflow = 0.14 cfs @ 24.03 hrs, Volume= 0.804 af, Atten= 99%, Lag= 724.9 min
Primary = 0.14 cfs @ 24.03 hrs, Volume= 0.804 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,534.10' Surf.Area= 24,527 sf Storage= 51,257 cf
Peak Elev= 1,535.90' @ 24.03 hrs Surf.Area= 31,095 sf Storage= 82,226 cf (30,969 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 2,415.5 min (3,242.3 - 826.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,527.00'	49,963 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,534.00'	77,661 cf	**CPv (Irregular)** Listed below (Recalc)
		127,624 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,527.00	3,398	312.2	0	0	3,398
1,528.00	4,364	331.3	3,871	3,871	4,428
1,529.00	5,386	350.1	4,866	8,737	5,502
1,530.00	6,465	369.0	5,917	14,654	6,642
1,531.00	7,600	387.8	7,025	21,679	7,836
1,532.00	8,792	406.7	8,189	29,868	9,095
1,533.00	10,040	425.5	9,409	39,277	10,408
1,534.00	11,345	444.4	10,686	49,963	11,787

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,534.00	12,700	621.7	0	0	12,700
1,535.00	17,927	661.0	15,239	15,239	16,762
1,536.00	19,949	587.1	18,929	34,168	24,129
1,537.00	21,739	606.0	20,838	55,005	26,020
1,538.00	23,585	624.8	22,656	77,661	27,961

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.00' / 1,528.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,534.10'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,536.60'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,536.90'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.14 cfs @ 24.03 hrs HW=1,535.90' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 56.39 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.32 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,534.10' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P12: Drop-off Parking Lot Soil Filter

Inflow Area = 4.069 ac, 25.29% Impervious, Inflow Depth = 1.01" for 2-Year event
Inflow = 5.19 cfs @ 11.94 hrs, Volume= 0.341 af
Outflow = 0.08 cfs @ 23.74 hrs, Volume= 0.341 af, Atten= 98%, Lag= 707.9 min
Primary = 0.08 cfs @ 23.74 hrs, Volume= 0.341 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,466.33' Surf.Area= 3,018 sf Storage= 398 cf
Peak Elev= 1,471.09' @ 23.74 hrs Surf.Area= 4,621 sf Storage= 11,568 cf (11,169 cf above start)

Plug-Flow detention time= 1,566.7 min calculated for 0.332 af (97% of inflow)
Center-of-Mass det. time= 1,507.2 min (2,353.5 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,466.00'	29,485 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,466.00	3,018	237.3	0.0	0	0	3,018
1,467.50	3,018	237.3	40.0	1,811	1,811	3,374
1,469.00	3,018	237.3	40.0	1,811	3,622	3,730
1,470.00	3,758	256.1	100.0	3,381	7,003	4,508
1,472.00	5,408	293.8	100.0	9,116	16,119	6,247
1,473.00	6,739	328.1	100.0	6,061	22,180	7,973
1,474.00	7,886	362.8	100.0	7,305	29,485	9,912

Device	Routing	Invert	Outlet Devices
#1	Primary	1,466.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,466.00' / 1,464.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,466.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,472.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,473.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.08 cfs @ 23.74 hrs HW=1,471.09' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.08 cfs of 14.00 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.45 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,466.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P13: Parking Lot H Wet Pond

Inflow Area = 2.921 ac, 40.05% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 6.60 cfs @ 11.93 hrs, Volume= 0.283 af
Outflow = 0.10 cfs @ 17.72 hrs, Volume= 0.282 af, Atten= 98%, Lag= 347.2 min
Primary = 0.10 cfs @ 17.72 hrs, Volume= 0.282 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,567.00' Surf.Area= 11,858 sf Storage= 14,847 cf
Peak Elev= 1,568.07' @ 17.72 hrs Surf.Area= 15,790 sf Storage= 23,266 cf (8,419 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 1,047.4 min (1,876.6 - 829.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,561.00'	14,847 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,567.00'	30,200 cf	**CPv (Irregular)** Listed below (Recalc)
		45,047 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,561.00	495	188.6	0	0	495
1,566.00	4,031	282.9	9,898	9,898	4,224
1,567.00	5,929	467.9	4,950	14,847	15,284

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,567.00	5,929	467.9	0	0	5,929
1,568.00	9,766	479.1	7,768	7,768	6,897
1,569.00	11,246	454.1	10,497	18,265	8,811
1,570.00	12,637	473.0	11,935	30,200	10,280

Device	Routing	Invert	Outlet Devices
#1	Primary	1,560.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,560.00' / 1,559.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,567.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,568.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,569.00'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.10 cfs @ 17.72 hrs HW=1,568.07' (Free Discharge)
└**1=Culvert** (Passes 0.10 cfs of 68.85 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 4.77 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,567.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P14: Timbers 1-7 Wet Pond

Inflow Area = 7.555 ac, 24.78% Impervious, Inflow Depth = 0.77" for 2-Year event
Inflow = 11.38 cfs @ 11.94 hrs, Volume= 0.486 af
Outflow = 0.17 cfs @ 19.50 hrs, Volume= 0.482 af, Atten= 99%, Lag= 454.0 min
Primary = 0.17 cfs @ 19.50 hrs, Volume= 0.482 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,721.00' Surf.Area= 19,738 sf Storage= 31,523 cf
Peak Elev= 1,722.13' @ 19.50 hrs Surf.Area= 25,334 sf Storage= 45,960 cf (14,438 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 1,127.0 min (1,982.9 - 856.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,715.00'	31,523 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,721.00'	46,722 cf	**CPv (Irregular)** Listed below (Recalc)
		78,245 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,715.00	1,909	325.0	0	0	1,909
1,716.00	2,912	343.8	2,393	2,393	2,964
1,717.00	3,972	362.7	3,428	5,821	4,084
1,718.00	5,088	381.6	4,519	10,340	5,263
1,719.00	6,261	400.4	5,664	16,004	6,497
1,720.00	7,490	419.3	6,866	22,870	7,796
1,721.00	9,869	603.5	8,652	31,523	22,797

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,721.00	9,869	603.5	0	0	9,869
1,722.00	15,216	645.8	12,446	12,446	14,120
1,723.00	17,184	596.9	16,190	28,636	18,996
1,724.00	19,003	615.8	18,086	46,722	20,918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,714.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,714.00' / 1,713.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,721.00'	**2.5" Vert. Orifice/Grate - Gravel Bench Underdrain** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,722.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,722.80'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.17 cfs @ 19.50 hrs HW=1,722.13' (Free Discharge)
└**1=Culvert** (Passes 0.17 cfs of 69.19 cfs potential flow)
  ├**2=Orifice/Grate - Gravel Bench Underdrain**(Orifice Controls 0.17 cfs @ 4.88 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,721.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P15: Timbers 8-10 Soil Filter

Inflow Area = 1.209 ac, 42.76% Impervious, Inflow Depth = 1.04" for 2-Year event
Inflow = 2.45 cfs @ 11.91 hrs, Volume= 0.105 af
Outflow = 0.05 cfs @ 16.76 hrs, Volume= 0.105 af, Atten= 98%, Lag= 290.7 min
Primary = 0.05 cfs @ 16.76 hrs, Volume= 0.105 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,083.33' Surf.Area= 2,042 sf Storage= 270 cf
Peak Elev= 2,086.34' @ 16.76 hrs Surf.Area= 2,259 sf Storage= 3,190 cf (2,920 cf above start)

Plug-Flow detention time= 888.4 min calculated for 0.098 af (94% of inflow)
Center-of-Mass det. time= 799.6 min (1,635.7 - 836.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,083.00'	17,217 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,083.00	2,042	210.0	0.0	0	0	2,042
2,084.50	2,042	210.0	40.0	1,225	1,225	2,357
2,086.00	2,042	210.0	40.0	1,225	2,450	2,672
2,087.00	2,702	230.0	100.0	2,364	4,815	3,406
2,088.00	3,753	271.0	100.0	3,213	8,028	5,060
2,090.00	5,491	308.5	100.0	9,189	17,217	6,884

Device	Routing	Invert	Outlet Devices
#1	Primary	2,083.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,083.00' / 2,082.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,083.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	2,088.20'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	2,088.30'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 16.76 hrs HW=2,086.34' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 18.28 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.30 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,083.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P16: Timbers 11-14 Soil Filter

Inflow Area = 1.829 ac, 34.99% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 3.56 cfs @ 11.96 hrs, Volume= 0.168 af
Outflow = 0.07 cfs @ 16.93 hrs, Volume= 0.168 af, Atten= 98%, Lag= 297.9 min
Primary = 0.07 cfs @ 16.93 hrs, Volume= 0.168 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,119.33' Surf.Area= 2,430 sf Storage= 321 cf
Peak Elev= 2,122.79' @ 16.93 hrs Surf.Area= 3,000 sf Storage= 5,057 cf (4,736 cf above start)

Plug-Flow detention time= 882.9 min calculated for 0.160 af (96% of inflow)
Center-of-Mass det. time= 815.2 min (1,651.0 - 835.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,119.00'	13,840 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,119.00	2,430	238.8	0.0	0	0	2,430
2,120.50	2,430	238.8	40.0	1,458	1,458	2,788
2,122.00	2,430	238.8	40.0	1,458	2,916	3,146
2,124.00	3,989	280.8	100.0	6,355	9,271	4,959
2,125.00	5,174	303.4	100.0	4,569	13,840	6,050

Device	Routing	Invert	Outlet Devices
#1	Primary	2,119.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,119.00' / 2,117.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,119.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,119.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,123.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,124.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.07 cfs @ 16.93 hrs HW=2,122.79' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.07 cfs of 19.95 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 8.89 fps)
    └**3=Exfiltration** (Passes 0.07 cfs of 0.21 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,119.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P6: Lot R43 Soil Filter

Inflow Area = 1.624 ac, 6.59% Impervious, Inflow Depth = 0.77" for 2-Year event
Inflow = 1.59 cfs @ 12.07 hrs, Volume= 0.104 af
Outflow = 0.05 cfs @ 17.56 hrs, Volume= 0.118 af, Atten= 97%, Lag= 329.4 min
Primary = 0.05 cfs @ 17.56 hrs, Volume= 0.118 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,823.33' Surf.Area= 1,505 sf Storage= 801 cf
Peak Elev= 1,825.68' @ 17.56 hrs Surf.Area= 1,988 sf Storage= 2,997 cf (2,196 cf above start)

Plug-Flow detention time= 783.7 min calculated for 0.100 af (96% of inflow)
Center-of-Mass det. time= 566.7 min (1,433.6 - 866.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,822.00'	9,945 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,822.00	1,505	233.0	0.0	0	0	1,505
1,823.50	1,505	233.0	40.0	903	903	1,855
1,825.00	1,505	233.0	40.0	903	1,806	2,204
1,826.00	2,234	252.5	100.0	1,858	3,664	2,996
1,828.00	4,145	312.6	100.0	6,281	9,945	5,757

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,822.00' / 1,822.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	1,822.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,826.75'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,826.90'	**4.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.05 cfs @ 17.56 hrs HW=1,825.68' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 7.47 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.76 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,823.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P7: R40 Gravel Wetland

Inflow Area = 3.407 ac, 26.21% Impervious, Inflow Depth = 0.90" for 2-Year event
Inflow = 2.24 cfs @ 12.06 hrs, Volume= 0.255 af
Outflow = 0.04 cfs @ 29.95 hrs, Volume= 0.251 af, Atten= 98%, Lag= 1,073.1 min
Primary = 0.04 cfs @ 29.95 hrs, Volume= 0.251 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,878.66' Surf.Area= 2,904 sf Storage= 3,090 cf
Peak Elev= 1,880.77' @ 29.95 hrs Surf.Area= 11,042 sf Storage= 11,351 cf (8,261 cf above start)

Plug-Flow detention time= 3,409.6 min calculated for 0.180 af (71% of inflow)
Center-of-Mass det. time= 2,418.7 min (3,476.1 - 1,057.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,876.00'	4,453 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,876.00'	4,490 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,879.00'	867 cf	**Forebay (Irregular)**Listed below (Recalc)
#4	1,880.50'	21,050 cf	**Ponding (Irregular)**Listed below (Recalc)
		30,860 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,451	148.5	0.0	0	0	1,451
1,879.00	1,451	148.5	40.0	1,741	1,741	1,897
1,880.50	2,190	179.7	100.0	2,712	4,453	2,748

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,453	157.2	0.0	0	0	1,453
1,879.00	1,453	157.2	40.0	1,744	1,744	1,925
1,880.50	2,237	191.9	100.0	2,746	4,490	2,924

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,879.00	365	83.7	0.0	0	0	365
1,880.50	821	118.0	100.0	867	867	936

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,880.50	5,542	309.5	0	0	5,542
1,882.00	6,999	337.8	9,385	9,385	7,078
1,883.50	8,582	366.0	11,666	21,050	8,744

Device	Routing	Invert	Outlet Devices
#1	Primary	1,878.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,878.00' / 1,877.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,878.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,882.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,882.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.04 cfs @ 29.95 hrs HW=1,880.77' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 15.90 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.93 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,878.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 16: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af
Outflow = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af, Atten= 97%, Lag= 187.3 min
Primary = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,102.47' @ 15.10 hrs Surf.Area= 1,630 sf Storage= 1,612 cf (1,397 cf above start)

Plug-Flow detention time= 590.3 min calculated for 0.053 af (91% of inflow)
Center-of-Mass det. time= 490.6 min (1,346.1 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.10 hrs HW=2,102.47' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.82 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.98 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17A: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 1.51 cfs @ 11.98 hrs, Volume= 0.073 af
Outflow = 0.04 cfs @ 15.46 hrs, Volume= 0.073 af, Atten= 97%, Lag= 209.0 min
Primary = 0.04 cfs @ 15.46 hrs, Volume= 0.073 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.05' @ 15.46 hrs Surf.Area= 1,654 sf Storage= 2,035 cf (1,819 cf above start)

Plug-Flow detention time= 638.7 min calculated for 0.068 af (93% of inflow)
Center-of-Mass det. time= 555.1 min (1,406.8 - 851.7)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.46 hrs HW=2,103.05' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.18 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.88 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17B: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 1.51 cfs @ 11.98 hrs, Volume= 0.073 af
Outflow = 0.04 cfs @ 15.46 hrs, Volume= 0.073 af, Atten= 97%, Lag= 209.0 min
Primary = 0.04 cfs @ 15.46 hrs, Volume= 0.073 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.05' @ 15.46 hrs Surf.Area= 1,654 sf Storage= 2,035 cf (1,819 cf above start)

Plug-Flow detention time= 638.7 min calculated for 0.068 af (93% of inflow)
Center-of-Mass det. time= 555.1 min (1,406.8 - 851.7)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.46 hrs HW=2,103.05' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.18 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.88 fps)
└**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 18: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 1.04" for 2-Year event
Inflow = 1.54 cfs @ 11.98 hrs, Volume= 0.074 af
Outflow = 0.04 cfs @ 15.18 hrs, Volume= 0.074 af, Atten= 97%, Lag= 192.5 min
Primary = 0.04 cfs @ 15.18 hrs, Volume= 0.074 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,203.09' @ 15.18 hrs Surf.Area= 1,674 sf Storage= 2,102 cf (1,887 cf above start)

Plug-Flow detention time= 644.9 min calculated for 0.069 af (93% of inflow)
Center-of-Mass det. time= 561.8 min (1,402.1 - 840.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.18 hrs HW=2,203.09' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.27 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.94 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 19: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 1.37 cfs @ 11.98 hrs, Volume= 0.066 af
Outflow = 0.04 cfs @ 15.09 hrs, Volume= 0.066 af, Atten= 97%, Lag= 186.9 min
Primary = 0.04 cfs @ 15.09 hrs, Volume= 0.066 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,202.83' @ 15.09 hrs Surf.Area= 1,630 sf Storage= 1,844 cf (1,629 cf above start)

Plug-Flow detention time= 614.3 min calculated for 0.061 af (92% of inflow)
Center-of-Mass det. time= 524.4 min (1,372.2 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.09 hrs HW=2,202.83' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.68 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.55 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 20: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 1.28 cfs @ 11.98 hrs, Volume= 0.062 af
Outflow = 0.04 cfs @ 15.10 hrs, Volume= 0.062 af, Atten= 97%, Lag= 187.1 min
Primary = 0.04 cfs @ 15.10 hrs, Volume= 0.062 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,102.64' @ 15.10 hrs Surf.Area= 1,630 sf Storage= 1,724 cf (1,509 cf above start)

Plug-Flow detention time= 602.7 min calculated for 0.057 af (92% of inflow)
Center-of-Mass det. time= 507.3 min (1,359.0 - 851.7)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.10 hrs HW=2,102.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.25 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.26 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 22: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=2,053.14' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 23: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=2,053.14' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 24: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.61 cfs @ 11.97 hrs, Volume= 0.078 af
Outflow = 0.04 cfs @ 15.26 hrs, Volume= 0.078 af, Atten= 97%, Lag= 197.1 min
Primary = 0.04 cfs @ 15.26 hrs, Volume= 0.078 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,053.17' @ 15.26 hrs Surf.Area= 1,715 sf Storage= 2,243 cf (2,028 cf above start)

Plug-Flow detention time= 666.4 min calculated for 0.073 af (94% of inflow)
Center-of-Mass det. time= 584.5 min (1,421.0 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,630	0.0	0	0
2,051.50	1,630	40.0	978	978
2,053.00	1,630	40.0	978	1,956
2,054.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.26 hrs HW=2,053.17' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.45 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.06 fps)
└**3=Exfiltration** (Passes 0.04 cfs of 0.12 cfs potential flow)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 25: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,052.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=2,052.96' (Free Discharge)
↑**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
↑**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
↑**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 26: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,052.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=2,052.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 27: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,902.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 28: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,902.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 29: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,902.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 30: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,902.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,902.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 31: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=2,003.14' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 32: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,802.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,802.41' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 33: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af, Atten= 94%, Lag= 67.7 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.29' @ 13.11 hrs Surf.Area= 790 sf Storage= 725 cf (620 cf above start)

Plug-Flow detention time= 288.9 min calculated for 0.028 af (92% of inflow)
Center-of-Mass det. time= 217.1 min (1,065.0 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,802.29' (Free Discharge)
↑—**1=Outlet Culvert** (Passes 0.04 cfs of 8.34 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.67 fps)
↑—**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
—**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
↑—**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 34: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,802.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 35: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,802.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 36: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,822.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,822.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 37: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,822.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,822.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 38: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=2,003.14' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 39: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.04" for 2-Year event
Inflow = 1.28 cfs @ 11.98 hrs, Volume= 0.061 af
Outflow = 0.04 cfs @ 14.27 hrs, Volume= 0.061 af, Atten= 97%, Lag= 137.5 min
Primary = 0.04 cfs @ 14.27 hrs, Volume= 0.061 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,903.06' @ 14.27 hrs Surf.Area= 1,347 sf Storage= 1,662 cf (1,487 cf above start)

Plug-Flow detention time= 521.7 min calculated for 0.057 af (93% of inflow)
Center-of-Mass det. time= 447.7 min (1,287.9 - 840.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.27 hrs HW=1,903.06' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.20 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.89 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 40: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 0.98" for 2-Year event
Inflow = 1.20 cfs @ 11.98 hrs, Volume= 0.058 af
Outflow = 0.04 cfs @ 14.18 hrs, Volume= 0.058 af, Atten= 97%, Lag= 132.5 min
Primary = 0.04 cfs @ 14.18 hrs, Volume= 0.058 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,902.94' @ 14.18 hrs Surf.Area= 1,321 sf Storage= 1,554 cf (1,380 cf above start)

Plug-Flow detention time= 509.1 min calculated for 0.054 af (93% of inflow)
Center-of-Mass det. time= 432.0 min (1,276.1 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.18 hrs HW=1,902.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.72 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 41: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,802.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,802.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 42: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,803.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=1,803.14' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 43: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 1.13 cfs @ 11.98 hrs, Volume= 0.054 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.054 af, Atten= 96%, Lag= 132.7 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.054 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,752.76' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,457 cf (1,283 cf above start)

Plug-Flow detention time= 500.3 min calculated for 0.050 af (93% of inflow)
Center-of-Mass det. time= 418.6 min (1,266.4 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,752.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.52 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.44 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 44: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 1.04" for 2-Year event
Inflow = 1.27 cfs @ 11.98 hrs, Volume= 0.061 af
Outflow = 0.04 cfs @ 14.26 hrs, Volume= 0.061 af, Atten= 97%, Lag= 137.1 min
Primary = 0.04 cfs @ 14.26 hrs, Volume= 0.061 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.06' @ 14.26 hrs Surf.Area= 1,346 sf Storage= 1,659 cf (1,485 cf above start)

Plug-Flow detention time= 521.3 min calculated for 0.057 af (93% of inflow)
Center-of-Mass det. time= 447.2 min (1,287.5 - 840.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.26 hrs HW=1,753.06' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 10.20 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.89 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 45: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.6 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,752.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,271 cf (1,097 cf above start)

Plug-Flow detention time= 480.2 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 390.8 min (1,246.3 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,752.41' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 8.64 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 46: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,752.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,752.41' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 47: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,752.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,752.41' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 48: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,852.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,852.41' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    - **3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 49: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,852.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,852.41' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 50: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,852.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=1,852.41' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Link SP1:

Inflow Area = 328.419 ac, 5.67% Impervious, Inflow Depth > 0.63" for 2-Year event
Inflow = 79.15 cfs @ 12.70 hrs, Volume= 17.300 af
Primary = 79.15 cfs @ 12.70 hrs, Volume= 17.300 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 6.579 ac, 3.57% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 4.25 cfs @ 12.13 hrs, Volume= 0.397 af
Primary = 4.25 cfs @ 12.13 hrs, Volume= 0.397 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 5.39 cfs @ 12.06 hrs, Volume= 1.263 af
Primary = 5.39 cfs @ 12.06 hrs, Volume= 1.263 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 12.275 ac, 33.70% Impervious, Inflow Depth > 0.99" for 2-Year event
Inflow = 0.73 cfs @ 12.05 hrs, Volume= 1.017 af
Primary = 0.73 cfs @ 12.05 hrs, Volume= 1.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 1.275 ac, 5.49% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 0.89 cfs @ 12.17 hrs, Volume= 0.077 af
Primary = 0.89 cfs @ 12.17 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 4.241 ac, 25.14% Impervious, Inflow Depth = 1.00" for 2-Year event
Inflow = 0.27 cfs @ 12.07 hrs, Volume= 0.354 af
Primary = 0.27 cfs @ 12.07 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 61.872 ac, 2.01% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 20.49 cfs @ 12.12 hrs, Volume= 3.285 af
Primary = 20.49 cfs @ 12.12 hrs, Volume= 3.285 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 2.355 ac, 0.51% Impervious, Inflow Depth = 0.68" for 2-Year event
Inflow = 1.34 cfs @ 12.23 hrs, Volume= 0.133 af
Primary = 1.34 cfs @ 12.23 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 0.69" for 2-Year event
Inflow = 19.02 cfs @ 12.21 hrs, Volume= 4.397 af
Primary = 19.02 cfs @ 12.21 hrs, Volume= 4.397 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 0.872 ac, 6.42% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 0.83 cfs @ 12.06 hrs, Volume= 0.053 af
Primary = 0.83 cfs @ 12.06 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.344 ac, 19.19% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 0.43 cfs @ 12.04 hrs, Volume= 0.025 af
Primary = 0.43 cfs @ 12.04 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 0.148 ac, 24.32% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 0.20 cfs @ 12.04 hrs, Volume= 0.011 af
Primary = 0.20 cfs @ 12.04 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS 1 Runoff Area=3.567 ac 0.53% Impervious Runoff Depth=1.36"
Flow Length=1,065' Tc=51.7 min CN=77 Runoff=2.76 cfs 0.403 af

Subcatchment1-1: WS 1-1 Runoff Area=1.814 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=593' Tc=27.3 min CN=77 Runoff=2.20 cfs 0.205 af

Subcatchment1-2: WS 1-2 Runoff Area=2.282 ac 0.09% Impervious Runoff Depth=1.42"
Flow Length=674' Tc=12.0 min CN=78 Runoff=4.59 cfs 0.270 af

Subcatchment1-3: WS 1-3 Runoff Area=8.349 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=1,281' Tc=30.5 min CN=77 Runoff=9.41 cfs 0.944 af

Subcatchment1-4: WS 1-4 Runoff Area=24.316 ac 0.36% Impervious Runoff Depth=1.29"
Flow Length=2,809' Tc=31.6 min CN=76 Runoff=25.23 cfs 2.621 af

Subcatchment1-5: WS 1-5 Runoff Area=61.115 ac 0.78% Impervious Runoff Depth=1.11"
Flow Length=6,226' Tc=61.0 min CN=73 Runoff=32.91 cfs 5.668 af

Subcatchment1-6: WS 1-6 Runoff Area=1.209 ac 42.76% Impervious Runoff Depth=1.85"
Flow Length=409' Tc=1.5 min CN=84 Runoff=4.32 cfs 0.187 af

Subcatchment1-7: WS 1-7 Runoff Area=31.149 ac 0.22% Impervious Runoff Depth=1.17"
Flow Length=4,331' Tc=43.2 min CN=74 Runoff=23.05 cfs 3.041 af

Subcatchment1-8: WS 1-8 Runoff Area=63.400 ac 0.07% Impervious Runoff Depth=1.23"
Flow Length=4,770' Tc=52.2 min CN=75 Runoff=43.41 cfs 6.506 af

Subcatchment1A: WS 1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=821' Tc=28.5 min CN=77 Runoff=3.62 cfs 0.348 af

Subcatchment1B: WS 1B Runoff Area=6.578 ac 7.74% Impervious Runoff Depth=1.49"
Flow Length=2,480' Tc=16.6 min CN=79 Runoff=11.90 cfs 0.816 af

Subcatchment1B1: WS 1B1 - Lot G Runoff Area=2.385 ac 32.08% Impervious Runoff Depth=1.85"
Flow Length=485' Tc=2.2 min CN=84 Runoff=8.49 cfs 0.368 af

Subcatchment1C: WS 1C Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=1,014' Tc=22.9 min CN=77 Runoff=3.94 cfs 0.329 af

Subcatchment1C1: WS 1C1 Runoff Area=15.551 ac 21.11% Impervious Runoff Depth=1.70"
Flow Length=2,648' Tc=18.9 min CN=82 Runoff=30.17 cfs 2.204 af

Subcatchment1C2: WS 1C2- Ex lot E Runoff Area=5.919 ac 52.98% Impervious Runoff Depth=2.18"
Flow Length=886' Tc=5.2 min CN=88 Runoff=22.46 cfs 1.074 af

Subcatchment1D: WS 1D- Ex Timbers Runoff Area=61.650 ac 9.88% Impervious Runoff Depth=1.29"
Flow Length=4,707' Tc=53.2 min CN=76 Runoff=44.15 cfs 6.644 af

Subcatchment1D1: WS 1D1 Runoff Area=7.555 ac 24.78% Impervious Runoff Depth=1.49"
Flow Length=1,421' Tc=2.4 min CN=79 Runoff=21.98 cfs 0.937 af

Subcatchment1D2: WS 1D2 Runoff Area=4.819 ac 0.17% Impervious Runoff Depth=1.06"
Flow Length=1,223' Tc=13.4 min CN=72 Runoff=6.61 cfs 0.424 af

Subcatchment1D3: WS 1D3 Runoff Area=2.624 ac 12.54% Impervious Runoff Depth=1.17"
Flow Length=731' Tc=7.2 min CN=74 Runoff=5.13 cfs 0.256 af

Subcatchment1D4: WS 1D4 Runoff Area=2.071 ac 15.79% Impervious Runoff Depth=1.29"
Flow Length=1,306' Tc=6.2 min CN=76 Runoff=4.63 cfs 0.223 af

Subcatchment1D5: Untreated from Runoff Area=2.466 ac 16.50% Impervious Runoff Depth=1.56"
Flow Length=924' Tc=2.8 min CN=80 Runoff=7.47 cfs 0.320 af

Subcatchment1D6: WS 1D6 Runoff Area=1.829 ac 34.99% Impervious Runoff Depth=1.93"
Flow Length=465' Tc=5.4 min CN=85 Runoff=6.18 cfs 0.294 af

Subcatchment1D7: WS 1D7 Runoff Area=11.787 ac 0.37% Impervious Runoff Depth=1.17"
Flow Length=2,532' Tc=42.2 min CN=74 Runoff=8.87 cfs 1.151 af

Subcatchment2: WS 2 Runoff Area=1.275 ac 5.49% Impervious Runoff Depth=1.42"
Flow Length=582' Tc=22.5 min CN=78 Runoff=1.84 cfs 0.151 af

Subcatchment2A: WS 2A Runoff Area=2.084 ac 44.15% Impervious Runoff Depth=2.09"
Flow Length=557' Tc=2.8 min CN=87 Runoff=8.23 cfs 0.363 af

Subcatchment3: WS 3 Runoff Area=0.172 ac 21.51% Impervious Runoff Depth=1.70"
Flow Length=189' Tc=14.2 min CN=82 Runoff=0.39 cfs 0.024 af

Subcatchment3A: WS 3A Runoff Area=1.985 ac 5.49% Impervious Runoff Depth=1.49"
Flow Length=928' Tc=29.5 min CN=79 Runoff=2.54 cfs 0.246 af

Subcatchment4: WS 4 Runoff Area=4.363 ac 0.21% Impervious Runoff Depth=1.36"
Flow Length=905' Tc=13.2 min CN=77 Runoff=8.00 cfs 0.493 af

Subcatchment4A: WS 4A Runoff Area=20.801 ac 1.45% Impervious Runoff Depth=1.29"
Flow Length=2,842' Tc=12.1 min CN=76 Runoff=37.63 cfs 2.242 af

Subcatchment4B: WS 4B Runoff Area=6.365 ac 1.02% Impervious Runoff Depth=1.29"
Flow Length=1,142' Tc=13.4 min CN=76 Runoff=10.99 cfs 0.686 af

Subcatchment4C: WS 4C Runoff Area=25.551 ac 0.15% Impervious Runoff Depth=1.23"
Flow Length=3,294' Tc=38.4 min CN=75 Runoff=21.87 cfs 2.622 af

Subcatchment5: WS 5 Runoff Area=2.355 ac 0.51% Impervious Runoff Depth=1.36"
Flow Length=887' Tc=26.8 min CN=77 Runoff=2.89 cfs 0.266 af

Subcatchment6: WS 6 Runoff Area=6.257 ac 0.66% Impervious Runoff Depth=1.36"
Flow Length=1,268' Tc=15.1 min CN=77 Runoff=10.70 cfs 0.707 af

Subcatchment6A: WS 6A Runoff Area=12.004 ac 1.64% Impervious Runoff Depth=1.29"
Flow Length=2,029' Tc=25.5 min CN=76 Runoff=14.38 cfs 1.294 af

Subcatchment6B: WS 6B Runoff Area=2.722 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=449' Tc=14.8 min CN=77 Runoff=4.70 cfs 0.308 af

Subcatchment6C: WS 6C Runoff Area=2.387 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=593' Tc=31.4 min CN=77 Runoff=2.64 cfs 0.270 af

Subcatchment7: WS 7 Runoff Area=0.872 ac 6.42% Impervious Runoff Depth=1.42"
Flow Length=518' Tc=13.0 min CN=78 Runoff=1.69 cfs 0.103 af

Subcatchment7A: WS 7A Runoff Area=2.921 ac 40.05% Impervious Runoff Depth=2.01"
Flow Length=446' Tc=2.4 min CN=86 Runoff=11.17 cfs 0.489 af

Subcatchment7B: WS 7B Runoff Area=0.886 ac 0.00% Impervious Runoff Depth=1.42"
Flow Length=334' Tc=5.9 min CN=78 Runoff=2.18 cfs 0.105 af

Subcatchment7C: WS 7C Runoff Area=5.244 ac 0.74% Impervious Runoff Depth=1.23"
Flow Length=929' Tc=18.3 min CN=75 Runoff=7.29 cfs 0.538 af

Subcatchment7D: WS 7D Runoff Area=1.624 ac 6.59% Impervious Runoff Depth=1.49"
Flow Length=535' Tc=14.2 min CN=79 Runoff=3.17 cfs 0.201 af

Subcatchment7F: WS 7F Runoff Area=2.020 ac 5.15% Impervious Runoff Depth=1.42"
Flow Length=443' Tc=13.2 min CN=78 Runoff=3.89 cfs 0.239 af

Subcatchment7G: WS 7G Runoff Area=2.700 ac 8.89% Impervious Runoff Depth=1.49"
Flow Length=926' Tc=36.7 min CN=79 Runoff=2.98 cfs 0.335 af

Subcatchment7H: WS 7H Runoff Area=1.781 ac 5.61% Impervious Runoff Depth=1.17"
Flow Length=559' Tc=7.7 min CN=74 Runoff=3.42 cfs 0.174 af

Subcatchment8: WS 8 Runoff Area=0.344 ac 19.19% Impervious Runoff Depth=1.63"
Flow Length=327' Tc=11.5 min CN=81 Runoff=0.81 cfs 0.047 af

Subcatchment9: WS 9 Runoff Area=0.148 ac 24.32% Impervious Runoff Depth=1.70"
Flow Length=211' Slope=0.0900 '/' Tc=11.1 min CN=82 Runoff=0.37 cfs 0.021 af

Subcatchment10: WS 10 Runoff Area=1.228 ac 0.00% Impervious Runoff Depth=1.42"
Flow Length=307' Tc=7.6 min CN=78 Runoff=2.90 cfs 0.145 af

Subcatchment10A: WS 10A Runoff Area=2.911 ac 6.32% Impervious Runoff Depth=1.42"
Flow Length=580' Tc=21.0 min CN=78 Runoff=4.39 cfs 0.345 af

Subcatchment10B: WS 10B Runoff Area=3.805 ac 0.11% Impervious Runoff Depth=1.06"
Flow Length=685' Tc=13.4 min CN=72 Runoff=5.22 cfs 0.335 af

Subcatchment11: WS 11 Runoff Area=2.440 ac 2.09% Impervious Runoff Depth=1.42"
Flow Length=580' Tc=22.3 min CN=78 Runoff=3.55 cfs 0.289 af

Subcatchment11A: WS 11A Runoff Area=2.606 ac 65.23% Impervious Runoff Depth=2.45"
Flow Length=440' Tc=2.9 min CN=91 Runoff=11.62 cfs 0.531 af

Subcatchment11B: WS 11B Runoff Area=2.488 ac 37.74% Impervious Runoff Depth=1.70"
Flow Length=382' Tc=6.2 min CN=82 Runoff=7.31 cfs 0.353 af

Subcatchment12: WS 12 Runoff Area=3.052 ac 1.15% Impervious Runoff Depth=1.42"
Flow Length=740' Tc=12.4 min CN=78 Runoff=6.05 cfs 0.362 af

Subcatchment12A: WS 12A Runoff Area=1.392 ac 2.66% Impervious Runoff Depth=1.42"
Flow Length=374' Tc=2.2 min CN=78 Runoff=3.88 cfs 0.165 af

Subcatchment12B: WS 12B Runoff Area=1.973 ac 2.53% Impervious Runoff Depth=1.06"
Flow Length=801' Tc=23.8 min CN=72 Runoff=1.94 cfs 0.174 af

Subcatchment12C: WS 12C Runoff Area=1.116 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=476' Tc=12.7 min CN=70 Runoff=1.38 cfs 0.088 af

Subcatchment12D: WS 12D Runoff Area=1.998 ac 21.72% Impervious Runoff Depth=1.56"
Flow Length=681' Tc=13.3 min CN=80 Runoff=4.22 cfs 0.259 af

Subcatchment12E: WS 12E Runoff Area=1.094 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=302' Tc=12.0 min CN=77 Runoff=2.09 cfs 0.124 af

Subcatchment12F: WS 12F Runoff Area=2.076 ac 10.74% Impervious Runoff Depth=1.42"
Flow Length=919' Tc=24.3 min CN=78 Runoff=2.86 cfs 0.246 af

Subcatchment12G: WS 12G Runoff Area=4.029 ac 3.67% Impervious Runoff Depth=1.23"
Flow Length=1,142' Tc=30.4 min CN=75 Runoff=4.06 cfs 0.413 af

Subcatchment13: WS 13 Runoff Area=0.338 ac 21.89% Impervious Runoff Depth=1.70"
Flow Length=290' Tc=11.5 min CN=82 Runoff=0.83 cfs 0.048 af

Subcatchment15H: WS 15H Runoff Area=18.929 ac 0.74% Impervious Runoff Depth=1.06"
Flow Length=3,396' Tc=48.8 min CN=72 Runoff=11.25 cfs 1.666 af

Subcatchment64S: WS 13A Runoff Area=2.849 ac 0.00% Impervious Runoff Depth=1.42"
Flow Length=612' Tc=15.1 min CN=78 Runoff=5.13 cfs 0.338 af

Subcatchment65S: WS 13B Runoff Area=1.525 ac 34.36% Impervious Runoff Depth=1.77"
Flow Length=331' Tc=1.3 min CN=83 Runoff=5.30 cfs 0.226 af

Subcatchment66S: WS 13C Runoff Area=2.469 ac 36.45% Impervious Runoff Depth=1.63"
Flow Length=409' Tc=8.9 min CN=81 Runoff=6.36 cfs 0.335 af

SubcatchmentR16: R16 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=2.28 cfs 0.110 af

SubcatchmentR17A: R17A Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=1.63"
Tc=6.0 min CN=81 Runoff=2.81 cfs 0.136 af

SubcatchmentR17B: R17B Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=1.63"
Tc=6.0 min CN=81 Runoff=2.81 cfs 0.136 af

SubcatchmentR18: R18 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=1.85"
Tc=6.0 min CN=84 Runoff=2.70 cfs 0.131 af

SubcatchmentR19: R19 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=1.70"
Tc=6.0 min CN=82 Runoff=2.49 cfs 0.120 af

SubcatchmentR20: R20 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.63"
Tc=6.0 min CN=81 Runoff=2.38 cfs 0.115 af

SubcatchmentR22: R22 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR23: R23 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR24: R24 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.80 cfs 0.137 af

SubcatchmentR25: R25 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR26: R26 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR27: R27 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR28: R28 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR29: R29 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR30: R30 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR31: R31 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR32: R32 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR33: R33 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.70"
Tc=6.0 min CN=82 Runoff=1.14 cfs 0.055 af

SubcatchmentR34: R34 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR35: R35 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR36: R36 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR37: R37 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR38: R38 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR39: R39 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.85"
Tc=6.0 min CN=84 Runoff=2.24 cfs 0.109 af

SubcatchmentR40: R40 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=1.77"
Tc=6.0 min CN=83 Runoff=2.15 cfs 0.104 af

SubcatchmentR41: R41 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR42: R42 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR43: R43 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.70"
Tc=6.0 min CN=82 Runoff=2.06 cfs 0.100 af

SubcatchmentR44: R44 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=1.85"
Tc=6.0 min CN=84 Runoff=2.23 cfs 0.109 af

SubcatchmentR45: R45 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR46: R46 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR47: R47 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR48: R48 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR49: R49 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR50: R50 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

Reach 17R: stream Avg. Flow Depth=0.37' Max Vel=7.27 fps Inflow=11.92 cfs 2.092 af
n=0.050 L=204.0' S=0.2696 '/' Capacity=62.68 cfs Outflow=11.88 cfs 2.092 af

Reach 19R: stream Avg. Flow Depth=0.59' Max Vel=7.56 fps Inflow=11.55 cfs 1.927 af
n=0.050 L=254.0' S=0.2087 '/' Capacity=63.50 cfs Outflow=11.48 cfs 1.927 af

Reach 23R: ditch Avg. Flow Depth=0.44' Max Vel=6.18 fps Inflow=9.30 cfs 1.391 af
n=0.050 L=550.0' S=0.1727 '/' Capacity=38.44 cfs Outflow=9.21 cfs 1.391 af

Reach 24R: ditch Avg. Flow Depth=0.43' Max Vel=5.06 fps Inflow=8.36 cfs 1.154 af
n=0.069 L=400.0' S=0.2375 '/' Capacity=163.35 cfs Outflow=8.28 cfs 1.154 af

Reach 29R: stream Avg. Flow Depth=1.19' Max Vel=7.78 fps Inflow=39.05 cfs 7.893 af
n=0.050 L=645.0' S=0.0946 '/' Capacity=100.62 cfs Outflow=38.71 cfs 7.892 af

Reach 32R: dead end stream Avg. Flow Depth=0.60' Max Vel=7.12 fps Inflow=15.49 cfs 3.672 af
n=0.050 L=770.0' S=0.1610 '/' Capacity=76.81 cfs Outflow=15.43 cfs 3.671 af

Reach 34R: stream Avg. Flow Depth=0.61' Max Vel=6.86 fps Inflow=14.98 cfs 3.064 af
n=0.050 L=370.0' S=0.1486 '/' Capacity=73.80 cfs Outflow=14.94 cfs 3.064 af

Reach 35R: flow in wetland Avg. Flow Depth=0.41' Max Vel=2.40 fps Inflow=12.37 cfs 2.336 af
n=0.100 L=600.0' S=0.0917 '/' Capacity=53.58 cfs Outflow=12.23 cfs 2.336 af

Reach 39R: stream Avg. Flow Depth=0.26' Max Vel=4.45 fps Inflow=5.29 cfs 0.980 af
n=0.050 L=1,100.0' S=0.1527 '/' Capacity=161.10 cfs Outflow=4.94 cfs 0.980 af

Reach 40R: stream Avg. Flow Depth=0.83' Max Vel=7.31 fps Inflow=42.63 cfs 6.185 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=41.14 cfs 6.185 af

Reach 42R: stream Avg. Flow Depth=0.59' Max Vel=7.54 fps Inflow=25.53 cfs 3.943 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=24.94 cfs 3.943 af

Reach 45R: flow in wetland Avg. Flow Depth=0.73' Max Vel=3.97 fps Inflow=22.32 cfs 2.874 af
n=0.100 L=1,200.0' S=0.1442 '/' Capacity=37.72 cfs Outflow=21.68 cfs 2.874 af

Reach 102R: stream Avg. Flow Depth=1.59' Max Vel=8.44 fps Inflow=183.01 cfs 34.342 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=182.53 cfs 34.341 af

Reach 103R: stream Avg. Flow Depth=1.13' Max Vel=7.95 fps Inflow=81.76 cfs 12.168 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=81.67 cfs 12.168 af

Reach 104R: stream Avg. Flow Depth=1.18' Max Vel=9.17 fps Inflow=99.47 cfs 20.760 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=99.29 cfs 20.759 af

Reach 108R: stream Avg. Flow Depth=0.44' Max Vel=6.12 fps Inflow=23.05 cfs 3.041 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=22.53 cfs 3.041 af

Reach 110R: stream Avg. Flow Depth=1.17' Max Vel=10.60 fps Inflow=88.96 cfs 16.100 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=88.64 cfs 16.100 af

Reach 111R: upperstream Avg. Flow Depth=0.42' Max Vel=6.20 fps Inflow=8.95 cfs 1.445 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=8.89 cfs 1.445 af

Reach 112R: stream Avg. Flow Depth=0.44' Max Vel=6.61 fps Inflow=17.08 cfs 2.431 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=15.78 cfs 2.431 af

Reach 113R: ditch Avg. Flow Depth=0.98' Max Vel=4.08 fps Inflow=11.88 cfs 2.092 af
n=0.069 L=245.0' S=0.0694 '/' Capacity=46.73 cfs Outflow=11.81 cfs 2.092 af

Pond 10P: new 36 Peak Elev=1.42' Inflow=13.39 cfs 2.453 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0300 '/' Outflow=13.39 cfs 2.453 af

Pond 12P: new 48 Peak Elev=2.54' Inflow=45.67 cfs 8.600 af
48.0" Round Culvert n=0.013 L=50.0' S=0.0560 '/' Outflow=45.67 cfs 8.600 af

Pond 16P: trunk line from condos Peak Elev=1,714.21' Inflow=18.33 cfs 0.884 af
30.0" Round Culvert n=0.013 L=700.0' S=0.0257 '/' Outflow=18.33 cfs 0.884 af

Pond 18P: Culvert 5 - Trail Inflow=11.92 cfs 2.092 af
Primary=11.92 cfs 2.092 af

Pond 20P: road culvert Peak Elev=1,774.85' Inflow=11.55 cfs 1.927 af
72.0" Round Culvert w/ 24.0" inside fill n=0.025 L=50.0' S=0.0200 '/' Outflow=11.55 cfs 1.927 af

Pond 21P: Pipe Down Slope Peak Elev=1,813.23' Storage=0.001 af Inflow=9.79 cfs 1.753 af
48.0" Round Culvert n=0.025 L=100.0' S=0.3200 '/' Outflow=9.79 cfs 1.753 af

Pond 22P: Pipe Down Slope Peak Elev=1,823.09' Inflow=9.79 cfs 1.753 af
48.0" Round Culvert n=0.025 L=100.0' S=0.0400 '/' Outflow=9.79 cfs 1.753 af

Pond 25P: road culvert Inflow=4.06 cfs 0.413 af
Primary=4.06 cfs 0.413 af

Pond 26P: road culvert Inflow=2.86 cfs 0.246 af
Primary=2.86 cfs 0.246 af

Pond 28P: road culvert Inflow=9.30 cfs 1.391 af
Primary=9.30 cfs 1.391 af

Pond 30P: Culvert 4 -Trail Inflow=19.32 cfs 2.273 af
Primary=19.32 cfs 2.273 af

Pond 31P: Trail Culvert Peak Elev=1,627.58' Inflow=20.05 cfs 5.027 af
72.0" Round Culvert n=0.025 L=300.0' S=0.0533 '/' Outflow=20.05 cfs 5.027 af

Pond 33P: Culvert 12 -Road Inflow=15.49 cfs 3.672 af
Primary=15.49 cfs 3.672 af

Pond 36P: trail culvert Inflow=12.37 cfs 2.336 af
Primary=12.37 cfs 2.336 af

Pond 37P: Road E Culvert Inflow=14.72 cfs 2.933 af
Primary=14.72 cfs 2.933 af

Pond 38P: Road A Culvert Inflow=11.90 cfs 2.047 af
Primary=11.90 cfs 2.047 af

Pond 41P: Culvert 3 - Trail 3 Inflow=42.63 cfs 6.185 af
Primary=42.63 cfs 6.185 af

Pond 43P: Culvert 11 -Trail 3 Inflow=23.48 cfs 3.560 af
Primary=23.48 cfs 3.560 af

Pond 44P: Culvert 13 -Road A Inflow=22.19 cfs 2.753 af
Primary=22.19 cfs 2.753 af

Pond 105P: Culvert 1 - Trail Inflow=98.45 cfs 19.247 af
Primary=98.45 cfs 19.247 af

Pond 106P: Culvert 2- Trail 2 Inflow=81.76 cfs 12.168 af
Primary=81.76 cfs 12.168 af

Pond 107P: Culvert 10 -Trail 2 Inflow=23.05 cfs 3.041 af
Primary=23.05 cfs 3.041 af

Pond 109P: Culvert 9-Trail Crossing Inflow=43.71 cfs 8.523 af
Primary=43.71 cfs 8.523 af

Pond P1: Condos Complex Wet Pond Peak Elev=1,686.11' Storage=98,108 cf Inflow=31.00 cfs 1.782 af
Primary=1.65 cfs 1.624 af Secondary=0.76 cfs 0.150 af Outflow=2.41 cfs 1.774 af

Pond P11: Parking Lot G Wet Pond Peak Elev=1,536.66' Storage=97,649 cf Inflow=30.46 cfs 1.442 af
Primary=0.67 cfs 1.308 af Secondary=0.00 cfs 0.000 af Outflow=0.67 cfs 1.308 af

Pond P12: Drop-off Parking Lot Soil Filter Peak Elev=1,472.64' Storage=19,850 cf Inflow=8.89 cfs 0.610 af
Primary=0.27 cfs 0.610 af Secondary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.610 af

Pond P13: Parking Lot H Wet Pond Peak Elev=1,568.77' Storage=30,559 cf Inflow=11.17 cfs 0.489 af
Primary=0.14 cfs 0.487 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.487 af

Pond P14: Timbers 1-7 Wet Pond Peak Elev=1,722.55' Storage=52,649 cf Inflow=21.98 cfs 0.937 af
Primary=1.42 cfs 0.933 af Secondary=0.00 cfs 0.000 af Outflow=1.42 cfs 0.933 af

Pond P15: Timbers 8-10 Soil Filter Peak Elev=2,087.46' Storage=6,148 cf Inflow=4.32 cfs 0.187 af
Primary=0.05 cfs 0.186 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.186 af

Pond P16: Timbers 11-14 Soil Filter Peak Elev=2,123.74' Storage=8,274 cf Inflow=6.18 cfs 0.294 af
Primary=0.27 cfs 0.294 af Secondary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.294 af

Pond P6: Lot R43 Soil Filter Peak Elev=1,826.77' Storage=5,643 cf Inflow=3.17 cfs 0.201 af
Primary=0.16 cfs 0.215 af Secondary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.215 af

Pond P7: R40 Gravel Wetland Peak Elev=1,881.99' Storage=19,140 cf Inflow=4.32 cfs 0.472 af
Primary=0.05 cfs 0.369 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.369 af

Pond RG 16: Large Rain Garden Peak Elev=2,103.55' Storage=2,918 cf Inflow=2.28 cfs 0.110 af
Primary=0.12 cfs 0.110 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.110 af

Pond RG 17A: Large Rain Garden Peak Elev=2,103.62' Storage=3,060 cf Inflow=2.81 cfs 0.136 af
Primary=0.33 cfs 0.136 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.136 af

Pond RG 17B: Large Rain Garden Peak Elev=2,103.62' Storage=3,060 cf Inflow=2.81 cfs 0.136 af
Primary=0.33 cfs 0.136 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.136 af

Pond RG 18: Large Rain Garden Peak Elev=2,203.62' Storage=3,055 cf Inflow=2.70 cfs 0.131 af
Primary=0.32 cfs 0.131 af Secondary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.131 af

Pond RG 19: Large Rain Garden Peak Elev=2,203.58' Storage=2,979 cf Inflow=2.49 cfs 0.120 af
Primary=0.20 cfs 0.120 af Secondary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.120 af

Pond RG 20: Large Rain Garden Peak Elev=2,103.56' Storage=2,947 cf Inflow=2.38 cfs 0.115 af
Primary=0.15 cfs 0.115 af Secondary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.115 af

Pond RG 22: Medium Rain Garden Peak Elev=2,053.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 23: Medium Rain Garden Peak Elev=2,053.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 24: Large Rain Garden Peak Elev=2,053.64' Storage=3,108 cf Inflow=2.80 cfs 0.137 af
Primary=0.42 cfs 0.137 af Secondary=0.00 cfs 0.000 af Outflow=0.42 cfs 0.137 af

Pond RG 25: Small Rain Garden Peak Elev=2,053.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 26: Small Rain Garden Peak Elev=2,053.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 27: Small Rain Garden Peak Elev=1,903.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 28: Small Rain Garden Peak Elev=1,903.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 29: Small Rain Garden Peak Elev=1,903.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 30: Small Rain Garden Peak Elev=1,903.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 31: Medium Rain Garden Peak Elev=2,003.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 32: Medium Rain Garden Peak Elev=1,803.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 33: Small Rain Garden Peak Elev=1,803.51' Storage=1,398 cf Inflow=1.14 cfs 0.055 af
Primary=0.05 cfs 0.055 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.055 af

Pond RG 34: Small Rain Garden Peak Elev=1,803.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 35: Small Rain Garden Peak Elev=1,803.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 36: Small Rain Garden Peak Elev=1,823.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 37: Small Rain Garden Peak Elev=1,823.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 38: Medium Rain Garden Peak Elev=2,003.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 39: Medium Rain Garden Peak Elev=1,903.61' Storage=2,472 cf Inflow=2.24 cfs 0.109 af
Primary=0.29 cfs 0.109 af Secondary=0.00 cfs 0.000 af Outflow=0.29 cfs 0.109 af

Pond RG 40: Medium Rain Garden Peak Elev=1,903.59' Storage=2,441 cf Inflow=2.15 cfs 0.104 af
Primary=0.23 cfs 0.104 af Secondary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.104 af

Pond RG 41: Small Rain Garden Peak Elev=1,803.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 42: Medium Rain Garden Peak Elev=1,803.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 43: Medium Rain Garden Peak Elev=1,753.57' Storage=2,414 cf Inflow=2.06 cfs 0.100 af
Primary=0.18 cfs 0.100 af Secondary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.100 af

Pond RG 44: Medium Rain Garden Peak Elev=1,753.61' Storage=2,471 cf Inflow=2.23 cfs 0.109 af
Primary=0.29 cfs 0.109 af Secondary=0.00 cfs 0.000 af Outflow=0.29 cfs 0.109 af

Pond RG 45: Medium Rain Garden Peak Elev=1,753.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 46: Medium Rain Garden Peak Elev=1,753.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 47: Medium Rain Garden Peak Elev=1,753.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 48: Medium Rain Garden Peak Elev=1,853.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 49: Medium Rain Garden Peak Elev=1,853.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 50: Medium Rain Garden Peak Elev=1,853.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Link SP1: Inflow=186.78 cfs 35.092 af
Primary=186.78 cfs 35.092 af

Link SP10:
Primary=0.00 cfs 0.000 af

Link SP11: Inflow=8.83 cfs 0.780 af
Primary=8.83 cfs 0.780 af

Link SP12: Inflow=13.39 cfs 2.453 af
Primary=13.39 cfs 2.453 af

Link SP13: Inflow=2.48 cfs 1.822 af
Primary=2.48 cfs 1.822 af

Link SP2: Inflow=1.84 cfs 0.151 af
Primary=1.84 cfs 0.151 af

Link SP3: Inflow=0.46 cfs 0.634 af
Primary=0.46 cfs 0.634 af

Link SP4: Inflow=48.32 cfs 6.678 af
Primary=48.32 cfs 6.678 af

Link SP5: Inflow=2.89 cfs 0.266 af
Primary=2.89 cfs 0.266 af

Link SP6: Inflow=45.67 cfs 8.600 af
Primary=45.67 cfs 8.600 af

Link SP7: Inflow=1.69 cfs 0.103 af
Primary=1.69 cfs 0.103 af

Link SP8: Inflow=0.81 cfs 0.047 af
Primary=0.81 cfs 0.047 af

Link SP9: Inflow=0.37 cfs 0.021 af
Primary=0.37 cfs 0.021 af

Total Runoff Area = 515.814 ac Runoff Volume = 56.889 af Average Runoff Depth = 1.32"
93.10% Pervious = 480.225 ac 6.90% Impervious = 35.589 ac

Summary for Subcatchment 1: WS 1

Runoff = 2.76 cfs @ 12.54 hrs, Volume= 0.403 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.019	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.414	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.134	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.567	77	Weighted Average
3.548		99.47% Pervious Area
0.019		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	37	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	102	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	150	0.0700	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	133	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00' n= 0.050
0.8	505	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00'

n= 0.050

51.7	1,065	Total

Summary for Subcatchment 1-1: WS 1-1

Runoff = 2.20 cfs @ 12.22 hrs, Volume= 0.205 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.863	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.472	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.479	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.814	77	Weighted Average
1.814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	105	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	60	0.4700	1.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	328	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
27.3	593	Total			

Summary for Subcatchment 1-2: WS 1-2

Runoff = 4.59 cfs @ 12.04 hrs, Volume= 0.270 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.685	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.351	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.002	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.130	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.114	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.282	78	Weighted Average
2.280		99.91% Pervious Area
0.002		0.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	194	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	53	0.4900	1.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	327	0.1000	13.40	563.00	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
12.0	674	Total			

Summary for Subcatchment 1-3: WS 1-3

Runoff = 9.41 cfs @ 12.26 hrs, Volume= 0.944 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.319	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.938	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
4.092	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
8.349	77	Weighted Average
8.349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
3.4	596	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.1	585	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.5	1,281	Total			

Summary for Subcatchment 1-4: WS 1-4

Runoff = 25.23 cfs @ 12.28 hrs, Volume= 2.621 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.284	70	Existing Woods, Good, HSG C
8.316	77	Existing Woods, Good, HSG D
0.588	70	Proposed Woods, Good, HSG C
1.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.088	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.085	71	Proposed meadow, ski trail, HSG C
6.341	78	Proposed meadow, ski trail, HSG D
0.360	71	Proposed meadow, ski lift, HSG C
2.079	78	Proposed meadow, ski lift, HSG D
24.316	76	Weighted Average
24.228		99.64% Pervious Area
0.088		0.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.8	294	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	760	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	482	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	447	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	637	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	138	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
31.6	2,809	Total			

Summary for Subcatchment 1-5: WS 1-5

Runoff = 32.91 cfs @ 12.68 hrs, Volume= 5.668 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.002	98	Untreated existing impervious, HSG C
0.341	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
4.136	71	Existing meadow, non-grazed, HSG C
6.492	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
23.027	70	Existing Woods, Good, HSG C
11.528	77	Existing Woods, Good, HSG D
2.098	70	Proposed Woods, Good, HSG C
0.523	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.131	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.542	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
7.617	71	Proposed meadow, ski trail, HSG C
4.678	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.115	73	Weighted Average
60.641		99.22% Pervious Area
0.474		0.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	361	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.3	252	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.6	459	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	334	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
61.0	6,226	Total			

Summary for Subcatchment 1-6: WS 1-6

Runoff = 4.32 cfs @ 11.91 hrs, Volume= 0.187 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.022	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.175	98	Proposed impervious to be treated, HSG C
0.342	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.330	71	Proposed developed meadow to be treated, HSG C
0.334	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.209	84	Weighted Average
0.692		57.24% Pervious Area
0.517		42.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	33	0.0300	1.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	51	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.6	325	0.1000	9.32	7.32	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
1.5	409	Total			

Summary for Subcatchment 1-7: WS 1-7

Runoff = 23.05 cfs @ 12.44 hrs, Volume= 3.041 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
10.166	70	Existing Woods, Good, HSG C
8.946	77	Existing Woods, Good, HSG D
1.118	70	Proposed Woods, Good, HSG C
1.643	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.068	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.838	71	Proposed meadow, ski trail, HSG C
5.370	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
31.149	74	Weighted Average
31.081		99.78% Pervious Area
0.068		0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.2700	0.29		**Sheet Flow,** n= 0.240 P2= 2.40"
1.0	229	0.2700	3.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	216	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	483	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	251	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	311	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	863	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	956	0.2100	7.19	21.56	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.1	413	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.8	509	0.1500	10.18	91.58	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
43.2	4,331	Total			

Summary for Subcatchment 1-8: WS 1-8

Runoff = 43.41 cfs @ 12.56 hrs, Volume= 6.506 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.004	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.012	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
9.906	70	Existing Woods, Good, HSG C
17.781	77	Existing Woods, Good, HSG D
2.274	70	Proposed Woods, Good, HSG C
3.491	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.042	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
8.051	71	Proposed meadow, ski trail, HSG C
18.519	78	Proposed meadow, ski trail, HSG D
2.211	71	Proposed meadow, ski lift, HSG C
1.103	78	Proposed meadow, ski lift, HSG D
63.400	75	Weighted Average
63.354		99.93% Pervious Area
0.046		0.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.2900	0.29		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.1	249	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	274	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	353	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	277	0.2500	7.84	23.52	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
5.7	374	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	462	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	579	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	294	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	639	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	363	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
1.3	806	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
52.2	4,770	Total			

Summary for Subcatchment 1A: WS 1A

Runoff = 3.62 cfs @ 12.24 hrs, Volume= 0.348 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.076	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050
28.5	821	Total			

Summary for Subcatchment 1B: WS 1B

Runoff = 11.90 cfs @ 12.10 hrs, Volume= 0.816 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.425	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.072	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
5.568	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.084	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.429	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.578	79	Weighted Average
6.069		92.26% Pervious Area
0.509		7.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.7	336	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.7	339	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	336	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	278	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	283	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.3	118	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.4	164	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	83	0.1400	9.87	29.62	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.3	505	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
16.6	2,480	Total			

Summary for Subcatchment 1B1: WS 1B1 - Lot G

Runoff = 8.49 cfs @ 11.93 hrs, Volume= 0.368 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.007	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.765	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.438	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.030	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.385	84	Weighted Average
1.620		67.92% Pervious Area
0.765		32.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.5	81	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	304	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.2	485	Total			

Summary for Subcatchment 1C: WS 1C

Runoff = 3.94 cfs @ 12.17 hrs, Volume= 0.329 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.334	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.260	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.053	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.261	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.908	77	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0600	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	122	0.0600	1.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	46	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	221	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	154	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	283	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
2.0	88	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.9	1,014	Total			

Summary for Subcatchment 1C1: WS 1C1

Runoff = 30.17 cfs @ 12.12 hrs, Volume= 2.204 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
3.283	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
3.459	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.788	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.702	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.998	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
15.551	82	Weighted Average
12.268		78.89% Pervious Area
3.283		21.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.5	172	0.1500	6.24		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.7	164	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	157	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.9	350	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	219	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	251	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	316	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	73	0.1900	11.50	34.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	300	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	179	0.0200	3.73	11.20	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.0	342	0.0500	5.90	17.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
18.9	2,648	Total			

Summary for Subcatchment 1C2: WS 1C2- Ex lot E

Runoff = 22.46 cfs @ 11.96 hrs, Volume= 1.074 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
3.136	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.703	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.869	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.211	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.919	88	Weighted Average
2.783		47.02% Pervious Area
3.136		52.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0500	1.72		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	90	0.0500	3.60		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	114	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	356	0.0300	4.57	13.71	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.2	195	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	31	0.3900	10.05		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
5.2	886	Total			

Summary for Subcatchment 1D: WS 1D- Ex Timbers

Runoff = 44.15 cfs @ 12.57 hrs, Volume= 6.644 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
4.355	98	Untreated existing impervious, HSG C
1.531	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
13.379	71	Existing meadow, non-grazed, HSG C
10.031	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
16.365	70	Existing Woods, Good, HSG C
13.468	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.473	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.199	98	Untreated proposed impervious, HSG D
0.067	71	Proposed developed meadow, non-grazed, HSG C
1.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.717	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.650	76	Weighted Average
55.557		90.12% Pervious Area
6.093		9.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	60	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	130	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	182	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	394	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	298	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	183	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	230	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	254	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	159	0.1300	9.31	130.40	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	160	0.1100	8.57	119.95	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
2.2	165	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	245	0.2600	1.27		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	192	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.1	231	0.1300	29.21	408.97	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.022
4.5	280	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	134	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	334	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	168	0.0800	16.81	235.27	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
1.1	398	0.0100	5.94	83.18	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.5	334	0.0400	11.88	166.36	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.2	176	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00'

n= 0.050 Mountain streams w/large boulders

53.2 4,707 Total

Summary for Subcatchment 1D1: WS 1D1

Runoff = 21.98 cfs @ 11.93 hrs, Volume= 0.937 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.085	98	Untreated existing impervious, HSG C
0.067	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.162	71	Existing meadow, non-grazed, HSG C
0.056	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.786	70	Existing Woods, Good, HSG C
0.665	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
1.703	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.200	71	Proposed developed meadow, non-grazed, HSG C
0.811	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.003	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
7.555	79	Weighted Average
5.683		75.22% Pervious Area
1.872		24.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.0	19	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	69	0.0600	3.67		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	427	0.1200	13.38	23.65	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
0.2	316	0.1900	31.50	125.99	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.016 Asphalt, rough
0.1	118	0.2400	22.93	72.04	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.020 Corrugated PE, corrugated interior
0.6	372	0.1500	10.92	43.69	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.041 Riprap, 2-inch
2.4	1,421	Total			

Summary for Subcatchment 1D2: WS 1D2

Runoff = 6.61 cfs @ 12.06 hrs, Volume= 0.424 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.065	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.137	70	Existing Woods, Good, HSG C
0.049	77	Existing Woods, Good, HSG D
0.375	70	Proposed Woods, Good, HSG C
0.139	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.072	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
2.422	71	Proposed meadow, ski trail, HSG C
0.552	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.819	72	Weighted Average
4.811		99.83% Pervious Area
0.008		0.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
6.2	1,123	0.1890	3.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	1,223	Total			

Summary for Subcatchment 1D3: WS 1D3

Runoff = 5.13 cfs @ 11.99 hrs, Volume= 0.256 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.223	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.937	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.995	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.106	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.363	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.624	74	Weighted Average
2.295		87.46% Pervious Area
0.329		12.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	93	0.0500	1.69		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.5	259	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	220	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.8	70	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	89	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.2	731	Total			

Summary for Subcatchment 1D4: WS 1D4

Runoff = 4.63 cfs @ 11.98 hrs, Volume= 0.223 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.110	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.330	71	Existing meadow, non-grazed, HSG C
0.074	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.870	70	Existing Woods, Good, HSG C
0.224	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.117	98	Untreated proposed impervious, HSG C
0.063	98	Untreated proposed impervious, HSG D
0.185	71	Proposed developed meadow, non-grazed, HSG C
0.061	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.071	76	Weighted Average
1.744		84.21% Pervious Area
0.327		15.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.3	603	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	603	0.1300	8.26	99.08	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	1,306	Total			

Summary for Subcatchment 1D5: Untreated from Timbers (1D5)

Runoff = 7.47 cfs @ 11.94 hrs, Volume= 0.320 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.044	70	Existing Woods, Good, HSG C
0.402	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.017	98	Untreated proposed impervious, HSG C
0.390	98	Untreated proposed impervious, HSG D
0.199	71	Proposed developed meadow, non-grazed, HSG C
1.200	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.186	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.466	80	Weighted Average
2.059		83.50% Pervious Area
0.407		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	87	0.0700	1.91		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.3	105	0.1700	6.18		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.7	732	0.1000	7.24	86.90	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
2.8	924	Total			

Summary for Subcatchment 1D6: WS 1D6

Runoff = 6.18 cfs @ 11.96 hrs, Volume= 0.294 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.103	98	Proposed impervious to be treated, HSG C
0.537	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.127	71	Proposed developed meadow to be treated, HSG C
1.062	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.829	85	Weighted Average
1.189		65.01% Pervious Area
0.640		34.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	66	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	89	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	310	0.0600	11.11	8.73	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
5.4	465	Total			

Summary for Subcatchment 1D7: WS 1D7

Runoff = 8.87 cfs @ 12.42 hrs, Volume= 1.151 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.084	71	Existing meadow, non-grazed, HSG C
3.608	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.198	70	Existing Woods, Good, HSG C
1.644	77	Existing Woods, Good, HSG D
0.169	70	Proposed Woods, Good, HSG C
0.253	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.036	98	Untreated proposed impervious, HSG D
0.091	71	Proposed developed meadow, non-grazed, HSG C
0.164	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.288	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.787	74	Weighted Average
11.743		99.63% Pervious Area
0.044		0.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	89	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.4	228	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	185	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	217	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	273	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	293	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	264	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	251	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	300	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	194	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.2200	10.15	30.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
42.2	2,532	Total			

Summary for Subcatchment 2: WS 2

Runoff = 1.84 cfs @ 12.16 hrs, Volume= 0.151 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.070	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.048	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.012	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.275	78	Weighted Average
1.205		94.51% Pervious Area
0.070		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	35	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.7	242	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	176	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	129	0.0500	1.10	3.30	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.220
22.5	582	Total			

Summary for Subcatchment 2A: WS 2A

Runoff = 8.23 cfs @ 11.93 hrs, Volume= 0.363 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.010	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.002	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.910	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.162	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.084	87	Weighted Average
1.164		55.85% Pervious Area
0.920		44.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.6	457	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.8	557	Total			

Summary for Subcatchment 3: WS 3

Runoff = 0.39 cfs @ 12.06 hrs, Volume= 0.024 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.032	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.103	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.172	82	Weighted Average
0.135		78.49% Pervious Area
0.037		21.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.4	115	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.2	189	Total			

Summary for Subcatchment 3A: WS 3A

Runoff = 2.54 cfs @ 12.25 hrs, Volume= 0.246 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.824	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.161	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.048	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.040	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.411	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.480	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.985	79	Weighted Average
1.876		94.51% Pervious Area
0.109		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.1	136	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	241	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	18	0.4400	1.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	159	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.7	160	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	161	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
29.5	928	Total			

Summary for Subcatchment 4: WS 4

Runoff = 8.00 cfs @ 12.06 hrs, Volume= 0.493 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.009	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.993	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.257	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.104	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.363	77	Weighted Average
4.354		99.79% Pervious Area
0.009		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.1	269	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	100	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	436	0.1100	24.47	2,741.07	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=8.00' Z= 1.0 '/' Top.W=22.00' n= 0.050 Mountain streams w/large boulders
13.2	905	Total			

Summary for Subcatchment 4A: WS 4A

Runoff = 37.63 cfs @ 12.05 hrs, Volume= 2.242 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.200	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.739	71	Existing meadow, non-grazed, HSG C
0.785	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.883	70	Existing Woods, Good, HSG C
9.946	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
2.111	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
3.715	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
20.801	76	Weighted Average
20.500		98.55% Pervious Area
0.301		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.1900	0.25		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	180	0.1900	3.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	2,562	0.1550	9.80	58.80	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
12.1	2,842	Total			

Summary for Subcatchment 4B: WS 4B

Runoff = 10.99 cfs @ 12.06 hrs, Volume= 0.686 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.813	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.603	70	Existing Woods, Good, HSG C
3.488	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
1.104	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.065	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.286	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.006	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.365	76	Weighted Average
6.300		98.98% Pervious Area
0.065		1.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	38	0.0500	1.42		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	20	0.4000	4.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	270	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	168	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
0.4	218	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
4.4	217	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	211	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
13.4	1,142	Total			

Summary for Subcatchment 4C: WS 4C

Runoff = 21.87 cfs @ 12.37 hrs, Volume= 2.622 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.029	71	Existing meadow, non-grazed, HSG C
1.907	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.687	70	Existing Woods, Good, HSG C
5.408	77	Existing Woods, Good, HSG D
1.340	70	Proposed Woods, Good, HSG C
2.614	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.039	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.885	71	Proposed developed meadow, non-grazed, HSG C
1.161	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.924	71	Proposed meadow, ski trail, HSG C
4.557	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
25.551	75	Weighted Average
25.512		99.85% Pervious Area
0.039		0.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	37	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	270	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	431	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	157	0.3800	1.54		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	702	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	262	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	740	0.2200	7.36	22.07	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
3.5	248	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	347	0.1600	9.96	59.74	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
38.4	3,294	Total			

Summary for Subcatchment 5: WS 5

Runoff = 2.89 cfs @ 12.22 hrs, Volume= 0.266 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.012	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.790	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.133	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.420	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.355	77	Weighted Average
2.343		99.49% Pervious Area
0.012		0.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.0	89	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	13.49	40.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.030 Stream, clean & straight
26.8	887	Total			

Summary for Subcatchment 6: WS 6

Runoff = 10.70 cfs @ 12.08 hrs, Volume= 0.707 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
4.020	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.108	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.595	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.493	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.257	77	Weighted Average
6.216		99.34% Pervious Area
0.041		0.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	93	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	201	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	261	0.1500	8.96	35.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.5	182	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.8	241	0.0500	5.17	20.68	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	71	0.0600	5.30	15.90	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
15.1	1,268	Total			

Summary for Subcatchment 6A: WS 6A

Runoff = 14.38 cfs @ 12.20 hrs, Volume= 1.294 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.089	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.276	71	Existing meadow, non-grazed, HSG C
0.174	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.354	70	Existing Woods, Good, HSG C
3.771	77	Existing Woods, Good, HSG D
0.560	70	Proposed Woods, Good, HSG C
0.935	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.108	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.241	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
1.571	71	Proposed meadow, ski trail, HSG C
2.925	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
12.004	76	Weighted Average
11.807		98.36% Pervious Area
0.197		1.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	73	0.3400	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.7	149	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	142	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.6	62	0.5500	1.85		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.1	1,603	0.1370	12.71	152.58	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=2.00' Z= 1.0 '/' Top.W=8.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.5	2,029	Total			

Summary for Subcatchment 6B: WS 6B

Runoff = 4.70 cfs @ 12.08 hrs, Volume= 0.308 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.744	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.972	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.006	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.722	77	Weighted Average
2.722		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	62	0.2500	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	47	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	340	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.8	449	Total			

Summary for Subcatchment 6C: WS 6C

Runoff = 2.64 cfs @ 12.27 hrs, Volume= 0.270 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.299	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.289	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.178	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.621	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.387	77	Weighted Average
2.387		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	29	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	87	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.1	281	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	96	0.0300	0.43		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
31.4	593	Total			

Summary for Subcatchment 7: WS 7

Runoff = 1.69 cfs @ 12.05 hrs, Volume= 0.103 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.056	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.774	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.042	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.872	78	Weighted Average
0.816		93.58% Pervious Area
0.056		6.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	92	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	253	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
13.0	518	Total			

Summary for Subcatchment 7A: WS 7A

Runoff = 11.17 cfs @ 11.93 hrs, Volume= 0.489 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.099	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.331	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.071	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.420	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.921	86	Weighted Average
1.751		59.95% Pervious Area
1.170		40.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	33	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	37	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	86	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	190	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.4	446	Total			

Summary for Subcatchment 7B: WS 7B

Runoff = 2.18 cfs @ 11.97 hrs, Volume= 0.105 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.040	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.084	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.066	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.696	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.886	78	Weighted Average
0.886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	51	0.1700	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	57	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	146	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	13	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	67	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.9	334	Total			

Summary for Subcatchment 7C: WS 7C

Runoff = 7.29 cfs @ 12.12 hrs, Volume= 0.538 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.488	70	Existing Woods, Good, HSG C
2.656	77	Existing Woods, Good, HSG D
0.242	70	Proposed Woods, Good, HSG C
0.547	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.074	71	Proposed developed meadow, non-grazed, HSG C
0.192	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.006	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.244	75	Weighted Average
5.205		99.26% Pervious Area
0.039		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.1	155	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	161	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	107	0.0400	4.58	54.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
0.5	407	0.1600	12.66	142.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.50' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
1.0	57	0.1400	0.94		**Shallow Concentrated Flow,**

Forest w/Heavy Litter Kv= 2.5 fps

18.3	929	Total

Summary for Subcatchment 7D: WS 7D

Runoff = 3.17 cfs @ 12.07 hrs, Volume= 0.201 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.662	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.493	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.107	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.362	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.624	79	Weighted Average
1.517		93.41% Pervious Area
0.107		6.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.2	419	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	76	0.0500	15.55	124.41	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
14.2	535	Total			

Summary for Subcatchment 7F: WS 7F

Runoff = 3.89 cfs @ 12.06 hrs, Volume= 0.239 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.051	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.495	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.003	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.001	71	Proposed developed meadow, non-grazed, HSG C
0.369	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.020	78	Weighted Average
1.916		94.85% Pervious Area
0.104		5.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.2	193	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	176	0.2700	13.65	122.86	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050 Mountain streams w/large boulders
13.2	443	Total			

Summary for Subcatchment 7G: WS 7G

Runoff = 2.98 cfs @ 12.34 hrs, Volume= 0.335 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.403	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.303	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.134	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.240	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.186	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.003	78	Proposed developed meadow to be treated, HSG D
0.046	71	Proposed meadow, ski trail, HSG C
0.382	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.700	79	Weighted Average
2.460		91.11% Pervious Area
0.240		8.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	52	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	327	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	181	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.2	266	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
36.7	926	Total			

Summary for Subcatchment 7H: WS 7H

Runoff = 3.42 cfs @ 12.00 hrs, Volume= 0.174 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.217	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.348	70	Existing Woods, Good, HSG C
0.348	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.028	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.100	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.350	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.002	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.781	74	Weighted Average
1.681		94.39% Pervious Area
0.100		5.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	100	0.0600	1.85		**Sheet Flow,** n= 0.011 P2= 2.40"
0.5	18	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	31	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	196	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	158	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	56	0.0900	6.49	19.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

7.7	559	Total

Summary for Subcatchment 8: WS 8

Runoff = 0.81 cfs @ 12.04 hrs, Volume= 0.047 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.066	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.277	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.001	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.344	81	Weighted Average
0.278		80.81% Pervious Area
0.066		19.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	327	Total			

Summary for Subcatchment 9: WS 9

Runoff = 0.37 cfs @ 12.03 hrs, Volume= 0.021 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.036	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.101	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.011	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.148	82	Weighted Average
0.112		75.68% Pervious Area
0.036		24.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	173	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.1	211	Total			

Summary for Subcatchment 10: WS 10

Runoff = 2.90 cfs @ 11.99 hrs, Volume= 0.145 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.332	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.208	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.513	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.228	78	Weighted Average
1.228		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	38	0.0900	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	84	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	106	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.6	307	Total			

Summary for Subcatchment 10A: WS 10A

Runoff = 4.39 cfs @ 12.15 hrs, Volume= 0.345 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.037	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.184	98	Untreated proposed impervious, HSG D
0.194	71	Proposed developed meadow, non-grazed, HSG C
1.430	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.172	71	Proposed meadow, ski trail, HSG C
0.891	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.911	78	Weighted Average
2.727		93.68% Pervious Area
0.184		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.2200	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	122	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	154	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	204	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
21.0	580	Total			

Summary for Subcatchment 10B: WS 10B

Runoff = 5.22 cfs @ 12.06 hrs, Volume= 0.335 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.056	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.721	70	Existing Woods, Good, HSG C
0.184	77	Existing Woods, Good, HSG D
0.941	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.296	71	Proposed developed meadow, non-grazed, HSG C
0.558	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
1.043	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.805	72	Weighted Average
3.801		99.89% Pervious Area
0.004		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	47	0.1400	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.9	50	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	55	0.5200	1.80		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.2	533	0.1200	7.50	22.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050 Mountain streams w/large boulders
13.4	685	Total			

Summary for Subcatchment 11: WS 11

Runoff = 3.55 cfs @ 12.16 hrs, Volume= 0.289 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.051	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.928	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.259	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.566	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.636	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.440	78	Weighted Average
2.389		97.91% Pervious Area
0.051		2.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	130	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	29	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	105	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	216	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
22.3	580	Total			

Summary for Subcatchment 11A: WS 11A

Runoff = 11.62 cfs @ 11.93 hrs, Volume= 0.531 af, Depth= 2.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.700	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.906	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.606	91	Weighted Average
0.906		34.77% Pervious Area
1.700		65.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	21	0.1000	1.66		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	70	0.3700	9.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.9	249	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.9	440	Total			

Summary for Subcatchment 11B: WS 11B

Runoff = 7.31 cfs @ 11.98 hrs, Volume= 0.353 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.772	98	Proposed impervious to be treated, HSG C
0.167	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.233	71	Proposed developed meadow to be treated, HSG C
0.316	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.488	82	Weighted Average
1.549		62.26% Pervious Area
0.939		37.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.4400	0.35		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	36	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	246	0.0200	3.24	38.86	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	382	Total			

Summary for Subcatchment 12: WS 12

Runoff = 6.05 cfs @ 12.05 hrs, Volume= 0.362 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.035	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.747	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.280	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.243	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.747	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.052	78	Weighted Average
3.017		98.85% Pervious Area
0.035		1.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.5	174	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	17	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	204	0.1700	9.95	49.77	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.050
1.0	245	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
12.4	740	Total			

Summary for Subcatchment 12A: WS 12A

Runoff = 3.88 cfs @ 11.93 hrs, Volume= 0.165 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.777	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.012	98	Untreated proposed impervious, HSG C
0.025	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.576	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.392	78	Weighted Average
1.355		97.34% Pervious Area
0.037		2.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	33	0.0600	1.48		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.4	87	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	254	0.1800	12.62	104.09	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.50' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	374	Total			

Summary for Subcatchment 12B: WS 12B

Runoff = 1.94 cfs @ 12.19 hrs, Volume= 0.174 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.082	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.046	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.995	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.846	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.973	72	Weighted Average
1.923		97.47% Pervious Area
0.050		2.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	304	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	307	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	90	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
23.8	801	Total			

Summary for Subcatchment 12C: WS 12C

Runoff = 1.38 cfs @ 12.06 hrs, Volume= 0.088 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.044	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.492	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.372	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.208	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.116	70	Weighted Average
1.116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.6	115	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	302	0.1400	19.66	78.65	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
12.7	476	Total			

Summary for Subcatchment 12D: WS 12D

Runoff = 4.22 cfs @ 12.06 hrs, Volume= 0.259 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.024	71	Existing meadow, non-grazed, HSG C
0.014	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.122	70	Existing Woods, Good, HSG C
0.558	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.432	98	Proposed impervious to be treated, HSG C
0.002	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.523	71	Proposed developed meadow to be treated, HSG C
0.323	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.998	80	Weighted Average
1.564		78.28% Pervious Area
0.434		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	82	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	171	0.3000	3.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	379	0.1200	24.09	192.74	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
13.3	681	Total			

Summary for Subcatchment 12E: WS 12E

Runoff = 2.09 cfs @ 12.04 hrs, Volume= 0.124 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.042	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.033	70	Existing Woods, Good, HSG C
0.921	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.020	71	Proposed developed meadow, non-grazed, HSG C
0.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.094	77	Weighted Average
1.094		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	71	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.2	101	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1500	26.94	215.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
12.0	302	Total			

Summary for Subcatchment 12F: WS 12F

Runoff = 2.86 cfs @ 12.19 hrs, Volume= 0.246 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.346	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.593	77	Existing Woods, Good, HSG D
0.159	70	Proposed Woods, Good, HSG C
0.120	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.223	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.377	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.257	71	Proposed meadow, ski trail, HSG C
0.001	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.076	78	Weighted Average
1.853		89.26% Pervious Area
0.223		10.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	31	0.6500	5.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	129	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	130	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	195	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	334	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
24.3	919	Total			

Summary for Subcatchment 12G: WS 12G

Runoff = 4.06 cfs @ 12.27 hrs, Volume= 0.413 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.007	71	Existing meadow, non-grazed, HSG C
0.073	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.090	70	Existing Woods, Good, HSG C
0.912	77	Existing Woods, Good, HSG D
0.662	70	Proposed Woods, Good, HSG C
0.331	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.148	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.205	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.949	71	Proposed meadow, ski trail, HSG C
0.650	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.029	75	Weighted Average
3.881		96.33% Pervious Area
0.148		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1800	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	127	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	83	0.5300	1.82		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	305	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	182	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	262	0.0300	2.90	11.61	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
0.2	83	0.1200	5.80	23.22	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.4	1,142	Total			

Summary for Subcatchment 13: WS 13

Runoff = 0.83 cfs @ 12.04 hrs, Volume= 0.048 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.074	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.118	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.146	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.338	82	Weighted Average
0.264		78.11% Pervious Area
0.074		21.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	36	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	254	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
11.5	290	Total			

Summary for Subcatchment 15H: WS 15H

Runoff = 11.25 cfs @ 12.52 hrs, Volume= 1.666 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.864	71	Existing meadow, non-grazed, HSG C
0.081	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
4.191	70	Existing Woods, Good, HSG C
2.039	77	Existing Woods, Good, HSG D
2.433	70	Proposed Woods, Good, HSG C
0.330	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.140	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
5.213	71	Proposed developed meadow, non-grazed, HSG C
0.038	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.193	71	Proposed meadow, ski trail, HSG C
0.407	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
18.929	72	Weighted Average
18.789		99.26% Pervious Area
0.140		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	358	0.2800	3.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.3	1,352	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	765	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.9	612	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	209	0.2500	26.28	105.11	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
48.8	3,396	Total			

Summary for Subcatchment 64S: WS 13A

Runoff = 5.13 cfs @ 12.08 hrs, Volume= 0.338 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.353	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.301	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.695	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.500	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.849	78	Weighted Average
2.849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.4	211	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	612	Total			

Summary for Subcatchment 65S: WS 13B

Runoff = 5.30 cfs @ 11.91 hrs, Volume= 0.226 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.086	70	Existing Woods, Good, HSG C
0.116	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.379	98	Proposed impervious to be treated, HSG C
0.145	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.383	71	Proposed developed meadow to be treated, HSG C
0.416	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.525	83	Weighted Average
1.001		65.64% Pervious Area
0.524		34.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0700	1.97		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.0700	5.37		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	88	0.1600	28.80	90.49	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.3	118	0.2000	7.01	21.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.3	331	Total			

Summary for Subcatchment 66S: WS 13C

Runoff = 6.36 cfs @ 12.01 hrs, Volume= 0.335 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.900	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.569	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.469	81	Weighted Average
1.569		63.55% Pervious Area
0.900		36.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	42	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	170	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.4	97	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	409	Total			

Summary for Subcatchment R16: R16

Runoff = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17A: R17A

Runoff = 2.81 cfs @ 11.97 hrs, Volume= 0.136 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.270	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.501	71	Proposed developed meadow to be treated, HSG C
0.149	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17B: R17B

Runoff = 2.81 cfs @ 11.97 hrs, Volume= 0.136 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.341	98	Proposed impervious to be treated, HSG C
0.009	98	Proposed impervious to be treated, HSG D
0.634	71	Proposed developed meadow to be treated, HSG C
0.016	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R18: R18

Runoff = 2.70 cfs @ 11.97 hrs, Volume= 0.131 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.097	98	Proposed impervious to be treated, HSG C
0.202	98	Proposed impervious to be treated, HSG D
0.178	71	Proposed developed meadow to be treated, HSG C
0.373	78	Proposed developed meadow to be treated, HSG D
0.850	84	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R19: R19

Runoff = 2.49 cfs @ 11.97 hrs, Volume= 0.120 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.219	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.404	71	Proposed developed meadow to be treated, HSG C
0.147	78	Proposed developed meadow to be treated, HSG D
0.850	82	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R20: R20

Runoff = 2.38 cfs @ 11.97 hrs, Volume= 0.115 af, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.281	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.519	71	Proposed developed meadow to be treated, HSG C
0.032	78	Proposed developed meadow to be treated, HSG D
0.849	81	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R22: R22

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R23: R23

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R24: R24

Runoff = 2.80 cfs @ 11.97 hrs, Volume= 0.137 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.001	98	Proposed impervious to be treated, HSG C
0.297	98	Proposed impervious to be treated, HSG D
0.002	71	Proposed developed meadow to be treated, HSG C
0.549	78	Proposed developed meadow to be treated, HSG D
0.849	85	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R25: R25

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R26: R26

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R27: R27

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R28: R28

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R29: R29

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R30: R30

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R31: R31

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R32: R32

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R33: R33

Runoff = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R34: R34

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R35: R35

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R36: R36

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R37: R37

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R38: R38

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R39: R39

Runoff = 2.24 cfs @ 11.97 hrs, Volume= 0.109 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.035	98	Proposed impervious to be treated, HSG C
0.195	98	Proposed impervious to be treated, HSG D
0.072	71	Proposed developed meadow to be treated, HSG C
0.403	78	Proposed developed meadow to be treated, HSG D
0.705	84	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R40: R40

Runoff = 2.15 cfs @ 11.97 hrs, Volume= 0.104 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.074	98	Proposed impervious to be treated, HSG C
0.155	98	Proposed impervious to be treated, HSG D
0.153	71	Proposed developed meadow to be treated, HSG C
0.322	78	Proposed developed meadow to be treated, HSG D
0.704	83	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R41: R41

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R42: R42

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R43: R43

Runoff = 2.06 cfs @ 11.97 hrs, Volume= 0.100 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.135	98	Proposed impervious to be treated, HSG C
0.095	98	Proposed impervious to be treated, HSG D
0.279	71	Proposed developed meadow to be treated, HSG C
0.196	78	Proposed developed meadow to be treated, HSG D
0.705	82	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R44: R44

Runoff = 2.23 cfs @ 11.97 hrs, Volume= 0.109 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.042	98	Proposed impervious to be treated, HSG C
0.187	98	Proposed impervious to be treated, HSG D
0.088	71	Proposed developed meadow to be treated, HSG C
0.387	78	Proposed developed meadow to be treated, HSG D
0.704	84	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R45: R45

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.198	98	Proposed impervious to be treated, HSG C
0.031	98	Proposed impervious to be treated, HSG D
0.410	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.704	80	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R46: R46

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R47: R47

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R48: R48

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R49: R49

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R50: R50

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

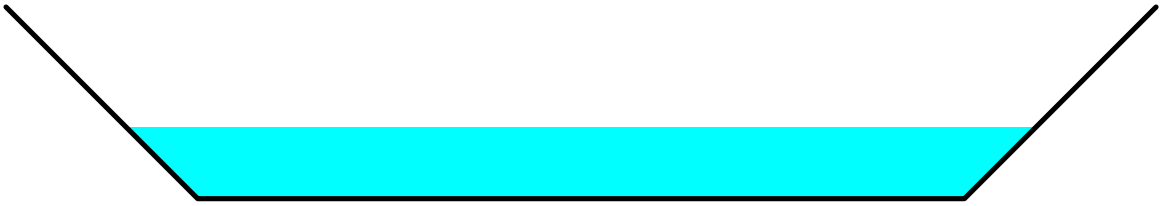
Summary for Reach 17R: stream

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 11.92 cfs @ 12.28 hrs, Volume= 2.092 af
Outflow = 11.88 cfs @ 12.29 hrs, Volume= 2.092 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.27 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 2.3 min

Peak Storage= 334 cf @ 12.28 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 4.75'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 62.68 cfs

4.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 204.0' Slope= 0.2696 '/'
Inlet Invert= 1,711.00', Outlet Invert= 1,656.00'



Summary for Reach 19R: stream

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 11.55 cfs @ 12.26 hrs, Volume= 1.927 af
Outflow = 11.48 cfs @ 12.28 hrs, Volume= 1.927 af, Atten= 1%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.56 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.72 fps, Avg. Travel Time= 2.5 min

Peak Storage= 387 cf @ 12.27 hrs
Average Depth at Peak Storage= 0.59' , Surface Width= 3.18'
Bank-Full Depth= 1.50' Flow Area= 5.3 sf, Capacity= 63.50 cfs

2.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 254.0' Slope= 0.2087 '/'
Inlet Invert= 1,770.00', Outlet Invert= 1,717.00'

Summary for Reach 23R: ditch

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 1.52" for 10-Year event
Inflow = 9.30 cfs @ 12.25 hrs, Volume= 1.391 af
Outflow = 9.21 cfs @ 12.29 hrs, Volume= 1.391 af, Atten= 1%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.18 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.22 fps, Avg. Travel Time= 7.5 min

Peak Storage= 826 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 3.87'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 38.44 cfs

3.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 550.0' Slope= 0.1727 '/'
Inlet Invert= 1,945.00', Outlet Invert= 1,850.00'

Summary for Reach 24R: ditch

Inflow Area = 9.146 ac, 15.86% Impervious, Inflow Depth = 1.51" for 10-Year event
Inflow = 8.36 cfs @ 12.22 hrs, Volume= 1.154 af
Outflow = 8.28 cfs @ 12.27 hrs, Volume= 1.154 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.06 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 5.8 min

Peak Storage= 658 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 4.71'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 163.35 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.2375 '/'
Inlet Invert= 2,015.00', Outlet Invert= 1,920.00'

Summary for Reach 29R: stream

Inflow Area = 70.584 ac, 10.64% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 39.05 cfs @ 12.18 hrs, Volume= 7.893 af
Outflow = 38.71 cfs @ 12.22 hrs, Volume= 7.892 af, Atten= 1%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.78 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.33 fps, Avg. Travel Time= 8.1 min

Peak Storage= 3,231 cf @ 12.20 hrs
Average Depth at Peak Storage= 1.19' , Surface Width= 5.39'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 100.62 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 645.0' Slope= 0.0946 '/'
Inlet Invert= 1,596.00', Outlet Invert= 1,535.00'

Summary for Reach 32R: dead end stream

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 1.26" for 10-Year event
Inflow = 15.49 cfs @ 12.59 hrs, Volume= 3.672 af
Outflow = 15.43 cfs @ 12.64 hrs, Volume= 3.671 af, Atten= 0%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.12 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 10.2 min

Peak Storage= 1,672 cf @ 12.61 hrs
Average Depth at Peak Storage= 0.60' , Surface Width= 4.21'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 76.81 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 770.0' Slope= 0.1610 '/'
Inlet Invert= 1,760.00', Outlet Invert= 1,636.00'

Summary for Reach 34R: stream

Inflow Area = 29.454 ac, 9.31% Impervious, Inflow Depth = 1.25" for 10-Year event
Inflow = 14.98 cfs @ 12.57 hrs, Volume= 3.064 af
Outflow = 14.94 cfs @ 12.60 hrs, Volume= 3.064 af, Atten= 0%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.86 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.3 min

Peak Storage= 807 cf @ 12.58 hrs
Average Depth at Peak Storage= 0.61' , Surface Width= 4.21'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 73.80 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 370.0' Slope= 0.1486 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,760.00'

Summary for Reach 35R: flow in wetland

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 1.15" for 10-Year event
Inflow = 12.37 cfs @ 12.51 hrs, Volume= 2.336 af
Outflow = 12.23 cfs @ 12.63 hrs, Volume= 2.336 af, Atten= 1%, Lag= 6.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.40 fps, Min. Travel Time= 4.2 min
Avg. Velocity = 0.42 fps, Avg. Travel Time= 23.8 min

Peak Storage= 3,071 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.41' , Surface Width= 12.82'
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 53.58 cfs

12.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 600.0' Slope= 0.0917 '/'
Inlet Invert= 2,080.00', Outlet Invert= 2,025.00'

‡

Summary for Reach 39R: stream

Inflow Area = 7.320 ac, 16.54% Impervious, Inflow Depth = 1.61" for 10-Year event
Inflow = 5.29 cfs @ 12.10 hrs, Volume= 0.980 af
Outflow = 4.94 cfs @ 12.21 hrs, Volume= 0.980 af, Atten= 7%, Lag= 6.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.45 fps, Min. Travel Time= 4.1 min
Avg. Velocity = 1.09 fps, Avg. Travel Time= 16.8 min

Peak Storage= 1,239 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.26' , Surface Width= 4.53'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 161.10 cfs

4.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 8.00'
Length= 1,100.0' Slope= 0.1527 '/'
Inlet Invert= 1,780.00', Outlet Invert= 1,612.00'

Summary for Reach 40R: stream

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 42.63 cfs @ 12.06 hrs, Volume= 6.185 af
Outflow = 41.14 cfs @ 12.11 hrs, Volume= 6.185 af, Atten= 3%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.31 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 10.4 min

Peak Storage= 4,387 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.83' , Surface Width= 7.67'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 36.708 ac, 2.54% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 25.53 cfs @ 12.49 hrs, Volume= 3.943 af
Outflow = 24.94 cfs @ 12.64 hrs, Volume= 3.943 af, Atten= 2%, Lag= 9.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.54 fps, Min. Travel Time= 5.4 min
Avg. Velocity = 1.21 fps, Avg. Travel Time= 33.6 min

Peak Storage= 8,085 cf @ 12.55 hrs
Average Depth at Peak Storage= 0.59' , Surface Width= 6.19'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 45R: flow in wetland

Inflow Area = 27.251 ac, 2.34% Impervious, Inflow Depth = 1.27" for 10-Year event
Inflow = 22.32 cfs @ 12.37 hrs, Volume= 2.874 af
Outflow = 21.68 cfs @ 12.52 hrs, Volume= 2.874 af, Atten= 3%, Lag= 8.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.97 fps, Min. Travel Time= 5.0 min
Avg. Velocity = 0.59 fps, Avg. Travel Time= 33.7 min

Peak Storage= 6,572 cf @ 12.44 hrs
Average Depth at Peak Storage= 0.73' , Surface Width= 8.93'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 37.72 cfs

6.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 1,200.0' Slope= 0.1442 '/'
Inlet Invert= 2,160.00', Outlet Invert= 1,987.00'

‡

Summary for Reach 102R: stream

Inflow Area = 321.776 ac, 5.78% Impervious, Inflow Depth > 1.28" for 10-Year event
Inflow = 183.01 cfs @ 12.56 hrs, Volume= 34.342 af
Outflow = 182.53 cfs @ 12.61 hrs, Volume= 34.341 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.44 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.20 fps, Avg. Travel Time= 12.4 min

Peak Storage= 19,273 cf @ 12.58 hrs
Average Depth at Peak Storage= 1.59' , Surface Width= 15.19'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 81.76 cfs @ 12.50 hrs, Volume= 12.168 af
Outflow = 81.67 cfs @ 12.51 hrs, Volume= 12.168 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.95 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 1.8 min

Peak Storage= 2,829 cf @ 12.50 hrs
Average Depth at Peak Storage= 1.13' , Surface Width= 10.25'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 191.143 ac, 9.36% Impervious, Inflow Depth > 1.30" for 10-Year event
Inflow = 99.47 cfs @ 12.60 hrs, Volume= 20.760 af
Outflow = 99.29 cfs @ 12.63 hrs, Volume= 20.759 af, Atten= 0%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.17 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.41 fps, Avg. Travel Time= 5.9 min

Peak Storage= 5,369 cf @ 12.61 hrs
Average Depth at Peak Storage= 1.18' , Surface Width= 10.36'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 23.05 cfs @ 12.44 hrs, Volume= 3.041 af
Outflow = 22.53 cfs @ 12.59 hrs, Volume= 3.041 af, Atten= 2%, Lag= 9.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.12 fps, Min. Travel Time= 5.4 min
Avg. Velocity = 1.89 fps, Avg. Travel Time= 17.3 min

Peak Storage= 7,258 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 8.87'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 157.125 ac, 6.82% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 88.96 cfs @ 12.60 hrs, Volume= 16.100 af
Outflow = 88.64 cfs @ 12.65 hrs, Volume= 16.100 af, Atten= 0%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.60 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.60 fps, Avg. Travel Time= 12.3 min

Peak Storage= 9,845 cf @ 12.62 hrs
Average Depth at Peak Storage= 1.17' , Surface Width= 8.34'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 13.616 ac, 5.02% Impervious, Inflow Depth = 1.27" for 10-Year event
Inflow = 8.95 cfs @ 12.42 hrs, Volume= 1.445 af
Outflow = 8.89 cfs @ 12.48 hrs, Volume= 1.445 af, Atten= 1%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.20 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.24 fps, Avg. Travel Time= 9.2 min

Peak Storage= 988 cf @ 12.44 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 3.84'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 21.986 ac, 10.30% Impervious, Inflow Depth = 1.33" for 10-Year event
Inflow = 17.08 cfs @ 11.96 hrs, Volume= 2.431 af
Outflow = 15.78 cfs @ 12.05 hrs, Volume= 2.431 af, Atten= 8%, Lag= 5.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.61 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 1.22 fps, Avg. Travel Time= 16.8 min

Peak Storage= 2,950 cf @ 12.00 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 5.88'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

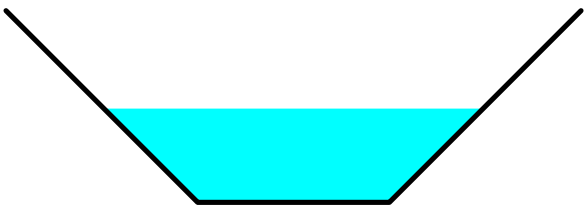
Summary for Reach 113R: ditch

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 11.88 cfs @ 12.29 hrs, Volume= 2.092 af
Outflow = 11.81 cfs @ 12.32 hrs, Volume= 2.092 af, Atten= 1%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.08 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 0.95 fps, Avg. Travel Time= 4.3 min

Peak Storage= 713 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.98' , Surface Width= 3.95'
Bank-Full Depth= 2.00' Flow Area= 8.0 sf, Capacity= 46.73 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 245.0' Slope= 0.0694 '/'
Inlet Invert= 1,656.00', Outlet Invert= 1,639.00'



Summary for Pond 10P: new 36

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 13.39 cfs @ 12.28 hrs, Volume= 2.453 af
Outflow = 13.39 cfs @ 12.28 hrs, Volume= 2.453 af, Atten= 0%, Lag= 0.0 min
Primary = 13.39 cfs @ 12.28 hrs, Volume= 2.453 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.42' @ 12.28 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.10' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.34 cfs @ 12.28 hrs HW=1.42' (Free Discharge)
1=Culvert (Inlet Controls 13.34 cfs @ 4.06 fps)

Summary for Pond 12P: new 48

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 45.67 cfs @ 12.18 hrs, Volume= 8.600 af
Outflow = 45.67 cfs @ 12.18 hrs, Volume= 8.600 af, Atten= 0%, Lag= 0.0 min
Primary = 45.67 cfs @ 12.18 hrs, Volume= 8.600 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 2.54' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**48.0" Round Culvert** L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0560 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=45.40 cfs @ 12.18 hrs HW=2.53' (Free Discharge)
1=Culvert (Inlet Controls 45.40 cfs @ 5.42 fps)

Summary for Pond 16P: trunk line from condos

Inflow Area = 5.094 ac, 51.81% Impervious, Inflow Depth = 2.08" for 10-Year event
Inflow = 18.33 cfs @ 11.94 hrs, Volume= 0.884 af
Outflow = 18.33 cfs @ 11.94 hrs, Volume= 0.884 af, Atten= 0%, Lag= 0.0 min
Primary = 18.33 cfs @ 11.94 hrs, Volume= 0.884 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,714.21' @ 11.94 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,712.00'	**30.0" Round Culvert** L= 700.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 1,712.00' / 1,694.00' S= 0.0257 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=17.94 cfs @ 11.94 hrs HW=1,714.17' (Free Discharge)
1=Culvert (Inlet Controls 17.94 cfs @ 3.96 fps)

Summary for Pond 18P: Culvert 5 - Trail

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 11.92 cfs @ 12.28 hrs, Volume= 2.092 af
Primary = 11.92 cfs @ 12.28 hrs, Volume= 2.092 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 20P: road culvert

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 11.55 cfs @ 12.26 hrs, Volume= 1.927 af
Outflow = 11.55 cfs @ 12.26 hrs, Volume= 1.927 af, Atten= 0%, Lag= 0.0 min
Primary = 11.55 cfs @ 12.26 hrs, Volume= 1.927 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,774.85' @ 12.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,774.00'	**72.0" Round Culvert w/ 24.0" inside fill** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,772.00' / 1,771.00' S= 0.0200 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 20.02 sf

Primary OutFlow Max=11.49 cfs @ 12.26 hrs HW=1,774.84' (Free Discharge)
1=Culvert (Inlet Controls 11.49 cfs @ 2.32 fps)

Summary for Pond 21P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 1.48" for 10-Year event
Inflow = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af
Outflow = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af, Atten= 0%, Lag= 0.1 min
Primary = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,813.23' @ 12.28 hrs Surf.Area= 0.001 ac Storage= 0.001 af

Plug-Flow detention time= 0.3 min calculated for 1.753 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (1,087.5 - 1,087.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,812.00'	0.016 af	**8.00'D x 14.00'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	1,812.00'	**48.0" Round Culvert**

L= 100.0' CMP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 1,812.00' / 1,780.00' S= 0.3200 '/' Cc= 0.900
n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=9.72 cfs @ 12.28 hrs HW=1,813.23' (Free Discharge)
1=Culvert (Inlet Controls 9.72 cfs @ 2.98 fps)

Summary for Pond 22P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 1.48" for 10-Year event
Inflow = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af
Outflow = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af, Atten= 0%, Lag= 0.0 min
Primary = 9.79 cfs @ 12.28 hrs, Volume= 1.753 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,823.09' @ 12.28 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**48.0" Round Culvert**
			L= 100.0' CMP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 1,822.00' / 1,818.00' S= 0.0400 '/' Cc= 0.900
			n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=9.74 cfs @ 12.28 hrs HW=1,823.08' (Free Discharge)
1=Culvert (Inlet Controls 9.74 cfs @ 3.54 fps)

Summary for Pond 25P: road culvert

Inflow Area = 4.029 ac, 3.67% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 4.06 cfs @ 12.27 hrs, Volume= 0.413 af
Primary = 4.06 cfs @ 12.27 hrs, Volume= 0.413 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 26P: road culvert

Inflow Area = 2.076 ac, 10.74% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 2.86 cfs @ 12.19 hrs, Volume= 0.246 af
Primary = 2.86 cfs @ 12.19 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 28P: road culvert

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 1.52" for 10-Year event
Inflow = 9.30 cfs @ 12.25 hrs, Volume= 1.391 af
Primary = 9.30 cfs @ 12.25 hrs, Volume= 1.391 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 30P: Culvert 4 -Trail

Inflow Area = 19.324 ac, 7.29% Impervious, Inflow Depth = 1.41" for 10-Year event
Inflow = 19.32 cfs @ 12.21 hrs, Volume= 2.273 af
Primary = 19.32 cfs @ 12.21 hrs, Volume= 2.273 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 31P: Trail Culvert

Inflow Area = 47.453 ac, 10.39% Impervious, Inflow Depth > 1.27" for 10-Year event
Inflow = 20.05 cfs @ 12.14 hrs, Volume= 5.027 af
Outflow = 20.05 cfs @ 12.14 hrs, Volume= 5.027 af, Atten= 0%, Lag= 0.0 min
Primary = 20.05 cfs @ 12.14 hrs, Volume= 5.027 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,627.58' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,626.00'	**72.0" Round Culvert** L= 300.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,626.00' / 1,610.00' S= 0.0533 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 28.27 sf

Primary OutFlow Max=19.93 cfs @ 12.14 hrs HW=1,627.57' (Free Discharge)
↑**1=Culvert** (Inlet Controls 19.93 cfs @ 3.37 fps)

Summary for Pond 33P: Culvert 12 -Road

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 1.26" for 10-Year event
Inflow = 15.49 cfs @ 12.59 hrs, Volume= 3.672 af
Primary = 15.49 cfs @ 12.59 hrs, Volume= 3.672 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 36P: trail culvert

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 1.15" for 10-Year event
Inflow = 12.37 cfs @ 12.51 hrs, Volume= 2.336 af
Primary = 12.37 cfs @ 12.51 hrs, Volume= 2.336 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 37P: Road E Culvert

Inflow Area = 28.672 ac, 8.44% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 14.72 cfs @ 12.58 hrs, Volume= 2.933 af
Primary = 14.72 cfs @ 12.58 hrs, Volume= 2.933 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 38P: Road A Culvert

Inflow Area = 21.778 ac, 5.23% Impervious, Inflow Depth = 1.13" for 10-Year event
Inflow = 11.90 cfs @ 12.51 hrs, Volume= 2.047 af
Primary = 11.90 cfs @ 12.51 hrs, Volume= 2.047 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 41P: Culvert 3 - Trail 3

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 42.63 cfs @ 12.06 hrs, Volume= 6.185 af
Primary = 42.63 cfs @ 12.06 hrs, Volume= 6.185 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 43P: Culvert 11 -Trail 3

Inflow Area = 33.616 ac, 2.09% Impervious, Inflow Depth = 1.27" for 10-Year event
Inflow = 23.48 cfs @ 12.51 hrs, Volume= 3.560 af
Primary = 23.48 cfs @ 12.51 hrs, Volume= 3.560 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 44P: Culvert 13 -Road A

Inflow Area = 26.401 ac, 1.28% Impervious, Inflow Depth = 1.25" for 10-Year event
Inflow = 22.19 cfs @ 12.37 hrs, Volume= 2.753 af
Primary = 22.19 cfs @ 12.37 hrs, Volume= 2.753 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 105P: Culvert 1 - Trail

Inflow Area = 181.025 ac, 7.73% Impervious, Inflow Depth = 1.28" for 10-Year event
Inflow = 98.45 cfs @ 12.61 hrs, Volume= 19.247 af
Primary = 98.45 cfs @ 12.61 hrs, Volume= 19.247 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 106P: Culvert 2- Trail 2

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 1.23" for 10-Year event
Inflow = 81.76 cfs @ 12.50 hrs, Volume= 12.168 af
Primary = 81.76 cfs @ 12.50 hrs, Volume= 12.168 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 107P: Culvert 10 -Trail 2

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 1.17" for 10-Year event
Inflow = 23.05 cfs @ 12.44 hrs, Volume= 3.041 af
Primary = 23.05 cfs @ 12.44 hrs, Volume= 3.041 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 109P: Culvert 9-Trail Crossing

Inflow Area = 87.920 ac, 3.12% Impervious, Inflow Depth = 1.16" for 10-Year event
Inflow = 43.71 cfs @ 12.64 hrs, Volume= 8.523 af
Primary = 43.71 cfs @ 12.64 hrs, Volume= 8.523 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond P1: Condos Complex Wet Pond

Inflow Area = 11.937 ac, 34.04% Impervious, Inflow Depth = 1.79" for 10-Year event
Inflow = 31.00 cfs @ 11.95 hrs, Volume= 1.782 af
Outflow = 2.41 cfs @ 12.80 hrs, Volume= 1.774 af, Atten= 92%, Lag= 51.2 min
Primary = 1.65 cfs @ 12.80 hrs, Volume= 1.624 af
Secondary = 0.76 cfs @ 12.80 hrs, Volume= 0.150 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,684.00' Surf.Area= 29,057 sf Storage= 54,189 cf
Peak Elev= 1,686.11' @ 12.80 hrs Surf.Area= 38,467 sf Storage= 98,108 cf (43,919 cf above start)

Plug-Flow detention time= 2,340.5 min calculated for 0.529 af (30% of inflow)
Center-of-Mass det. time= 951.6 min (1,775.1 - 823.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,678.00'	54,189 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,684.00'	66,450 cf	**CPv (Irregular)** Listed below (Recalc)
		120,639 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,678.00	4,365	481.7	0	0	4,365
1,679.00	5,839	500.5	5,084	5,084	5,914
1,680.00	7,369	519.4	6,589	11,673	7,531
1,681.00	8,954	538.2	8,149	19,822	9,199
1,682.00	10,598	557.1	9,764	29,586	10,935
1,683.00	12,297	575.9	11,437	41,023	12,722
1,684.00	14,053	594.8	13,165	54,189	14,578

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,684.00	15,004	752.2	0	0	15,004
1,685.00	21,703	791.7	18,251	18,251	19,918
1,686.00	24,167	734.9	22,924	41,175	26,860
1,687.00	26,400	753.8	25,275	66,450	29,220

Device	Routing	Invert	Outlet Devices
#1	Primary	1,681.00'	**24.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,681.00' / 1,680.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,684.00'	**3.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,686.00'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,686.00'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=1.62 cfs @ 12.80 hrs HW=1,686.11' (Free Discharge)
└**1=Culvert** (Passes 1.62 cfs of 24.22 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.45 cfs @ 6.75 fps)
  └**3=Orifice/Grate** (Weir Controls 1.17 cfs @ 1.10 fps)

Secondary OutFlow Max=0.74 cfs @ 12.80 hrs HW=1,686.11' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.74 cfs @ 0.82 fps)

Summary for Pond P11: Parking Lot G Wet Pond

Inflow Area = 8.304 ac, 46.98% Impervious, Inflow Depth = 2.08" for 10-Year event
Inflow = 30.46 cfs @ 11.95 hrs, Volume= 1.442 af
Outflow = 0.67 cfs @ 15.44 hrs, Volume= 1.308 af, Atten= 98%, Lag= 209.9 min
Primary = 0.67 cfs @ 15.44 hrs, Volume= 1.308 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,534.10' Surf.Area= 24,527 sf Storage= 51,257 cf
Peak Elev= 1,536.66' @ 15.44 hrs Surf.Area= 32,464 sf Storage= 97,649 cf (46,392 cf above start)

Plug-Flow detention time= 5,892.1 min calculated for 0.131 af (9% of inflow)
Center-of-Mass det. time= 2,217.6 min (3,029.3 - 811.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,527.00'	49,963 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,534.00'	77,661 cf	**CPv (Irregular)** Listed below (Recalc)
		127,624 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,527.00	3,398	312.2	0	0	3,398
1,528.00	4,364	331.3	3,871	3,871	4,428
1,529.00	5,386	350.1	4,866	8,737	5,502
1,530.00	6,465	369.0	5,917	14,654	6,642
1,531.00	7,600	387.8	7,025	21,679	7,836
1,532.00	8,792	406.7	8,189	29,868	9,095
1,533.00	10,040	425.5	9,409	39,277	10,408
1,534.00	11,345	444.4	10,686	49,963	11,787

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,534.00	12,700	621.7	0	0	12,700
1,535.00	17,927	661.0	15,239	15,239	16,762
1,536.00	19,949	587.1	18,929	34,168	24,129
1,537.00	21,739	606.0	20,838	55,005	26,020
1,538.00	23,585	624.8	22,656	77,661	27,961

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.00' / 1,528.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,534.10'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,536.60'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,536.90'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.60 cfs @ 15.44 hrs HW=1,536.66' (Free Discharge)
└**1=Culvert** (Passes 0.60 cfs of 61.03 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.58 fps)
  └**3=Orifice/Grate** (Weir Controls 0.44 cfs @ 0.79 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,534.10' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P12: Drop-off Parking Lot Soil Filter

Inflow Area = 4.069 ac, 25.29% Impervious, Inflow Depth = 1.80" for 10-Year event
Inflow = 8.89 cfs @ 11.94 hrs, Volume= 0.610 af
Outflow = 0.27 cfs @ 16.14 hrs, Volume= 0.610 af, Atten= 97%, Lag= 252.3 min
Primary = 0.27 cfs @ 16.14 hrs, Volume= 0.610 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,466.33' Surf.Area= 3,018 sf Storage= 398 cf
Peak Elev= 1,472.64' @ 16.14 hrs Surf.Area= 6,244 sf Storage= 19,850 cf (19,451 cf above start)

Plug-Flow detention time= 1,983.4 min calculated for 0.600 af (98% of inflow)
Center-of-Mass det. time= 1,941.9 min (2,772.8 - 830.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,466.00'	29,485 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,466.00	3,018	237.3	0.0	0	0	3,018
1,467.50	3,018	237.3	40.0	1,811	1,811	3,374
1,469.00	3,018	237.3	40.0	1,811	3,622	3,730
1,470.00	3,758	256.1	100.0	3,381	7,003	4,508
1,472.00	5,408	293.8	100.0	9,116	16,119	6,247
1,473.00	6,739	328.1	100.0	6,061	22,180	7,973
1,474.00	7,886	362.8	100.0	7,305	29,485	9,912

Device	Routing	Invert	Outlet Devices
#1	Primary	1,466.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,466.00' / 1,464.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,466.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,472.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,473.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.26 cfs @ 16.14 hrs HW=1,472.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.26 cfs of 16.30 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 12.05 fps)
  └**3=Orifice/Grate** (Weir Controls 0.17 cfs @ 0.66 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,466.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P13: Parking Lot H Wet Pond

Inflow Area = 2.921 ac, 40.05% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 11.17 cfs @ 11.93 hrs, Volume= 0.489 af
Outflow = 0.14 cfs @ 18.96 hrs, Volume= 0.487 af, Atten= 99%, Lag= 422.1 min
Primary = 0.14 cfs @ 18.96 hrs, Volume= 0.487 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,567.00' Surf.Area= 11,858 sf Storage= 14,847 cf
Peak Elev= 1,568.77' @ 18.96 hrs Surf.Area= 16,824 sf Storage= 30,559 cf (15,712 cf above start)

Plug-Flow detention time= 2,851.2 min calculated for 0.147 af (30% of inflow)
Center-of-Mass det. time= 1,399.2 min (2,212.7 - 813.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,561.00'	14,847 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,567.00'	30,200 cf	**CPv (Irregular)** Listed below (Recalc)
		45,047 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,561.00	495	188.6	0	0	495
1,566.00	4,031	282.9	9,898	9,898	4,224
1,567.00	5,929	467.9	4,950	14,847	15,284

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,567.00	5,929	467.9	0	0	5,929
1,568.00	9,766	479.1	7,768	7,768	6,897
1,569.00	11,246	454.1	10,497	18,265	8,811
1,570.00	12,637	473.0	11,935	30,200	10,280

Device	Routing	Invert	Outlet Devices
#1	Primary	1,560.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,560.00' / 1,559.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,567.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,568.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,569.00'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.14 cfs @ 18.96 hrs HW=1,568.77' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 72.45 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.25 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,567.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P14: Timbers 1-7 Wet Pond

Inflow Area = 7.555 ac, 24.78% Impervious, Inflow Depth = 1.49" for 10-Year event
Inflow = 21.98 cfs @ 11.93 hrs, Volume= 0.937 af
Outflow = 1.42 cfs @ 12.65 hrs, Volume= 0.933 af, Atten= 94%, Lag= 42.9 min
Primary = 1.42 cfs @ 12.65 hrs, Volume= 0.933 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,721.00' Surf.Area= 19,738 sf Storage= 31,523 cf
Peak Elev= 1,722.55' @ 12.65 hrs Surf.Area= 26,155 sf Storage= 52,649 cf (21,126 cf above start)

Plug-Flow detention time= 2,558.7 min calculated for 0.209 af (22% of inflow)
Center-of-Mass det. time= 864.1 min (1,700.3 - 836.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,715.00'	31,523 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,721.00'	46,722 cf	**CPv (Irregular)** Listed below (Recalc)
		78,245 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,715.00	1,909	325.0	0	0	1,909
1,716.00	2,912	343.8	2,393	2,393	2,964
1,717.00	3,972	362.7	3,428	5,821	4,084
1,718.00	5,088	381.6	4,519	10,340	5,263
1,719.00	6,261	400.4	5,664	16,004	6,497
1,720.00	7,490	419.3	6,866	22,870	7,796
1,721.00	9,869	603.5	8,652	31,523	22,797

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,721.00	9,869	603.5	0	0	9,869
1,722.00	15,216	645.8	12,446	12,446	14,120
1,723.00	17,184	596.9	16,190	28,636	18,996
1,724.00	19,003	615.8	18,086	46,722	20,918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,714.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,714.00' / 1,713.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,721.00'	**2.5" Vert. Orifice/Grate - Gravel Bench Underdrain** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,722.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,722.80'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=1.40 cfs @ 12.65 hrs HW=1,722.55' (Free Discharge)
└**1=Culvert** (Passes 1.40 cfs of 71.35 cfs potential flow)
  ├**2=Orifice/Grate - Gravel Bench Underdrain**(Orifice Controls 0.20 cfs @ 5.79 fps)
  └**3=Orifice/Grate** (Weir Controls 1.21 cfs @ 1.27 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,721.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P15: Timbers 8-10 Soil Filter

Inflow Area = 1.209 ac, 42.76% Impervious, Inflow Depth = 1.85" for 10-Year event
Inflow = 4.32 cfs @ 11.91 hrs, Volume= 0.187 af
Outflow = 0.05 cfs @ 19.10 hrs, Volume= 0.186 af, Atten= 99%, Lag= 431.6 min
Primary = 0.05 cfs @ 19.10 hrs, Volume= 0.186 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,083.33' Surf.Area= 2,042 sf Storage= 270 cf
Peak Elev= 2,087.46' @ 19.10 hrs Surf.Area= 3,159 sf Storage= 6,148 cf (5,878 cf above start)

Plug-Flow detention time= 1,317.3 min calculated for 0.180 af (97% of inflow)
Center-of-Mass det. time= 1,250.6 min (2,070.1 - 819.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,083.00'	17,217 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,083.00	2,042	210.0	0.0	0	0	2,042
2,084.50	2,042	210.0	40.0	1,225	1,225	2,357
2,086.00	2,042	210.0	40.0	1,225	2,450	2,672
2,087.00	2,702	230.0	100.0	2,364	4,815	3,406
2,088.00	3,753	271.0	100.0	3,213	8,028	5,060
2,090.00	5,491	308.5	100.0	9,189	17,217	6,884

Device	Routing	Invert	Outlet Devices
#1	Primary	2,083.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,083.00' / 2,082.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,083.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	2,088.20'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	2,088.30'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 19.10 hrs HW=2,087.46' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 22.20 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.73 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,083.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P16: Timbers 11-14 Soil Filter

Inflow Area = 1.829 ac, 34.99% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 6.18 cfs @ 11.96 hrs, Volume= 0.294 af
Outflow = 0.27 cfs @ 13.40 hrs, Volume= 0.294 af, Atten= 96%, Lag= 86.2 min
Primary = 0.27 cfs @ 13.40 hrs, Volume= 0.294 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,119.33' Surf.Area= 2,430 sf Storage= 321 cf
Peak Elev= 2,123.74' @ 13.40 hrs Surf.Area= 3,767 sf Storage= 8,274 cf (7,953 cf above start)

Plug-Flow detention time= 1,050.7 min calculated for 0.287 af (97% of inflow)
Center-of-Mass det. time= 1,005.8 min (1,825.6 - 819.8)

Volume	Invert	Avail.Storage	Storage Description
#1	2,119.00'	13,840 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,119.00	2,430	238.8	0.0	0	0	2,430
2,120.50	2,430	238.8	40.0	1,458	1,458	2,788
2,122.00	2,430	238.8	40.0	1,458	2,916	3,146
2,124.00	3,989	280.8	100.0	6,355	9,271	4,959
2,125.00	5,174	303.4	100.0	4,569	13,840	6,050

Device	Routing	Invert	Outlet Devices
#1	Primary	2,119.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,119.00' / 2,117.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,119.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,119.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,123.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,124.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.26 cfs @ 13.40 hrs HW=2,123.74' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.26 cfs of 23.10 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.06 fps)
    └**3=Exfiltration** (Passes 0.08 cfs of 0.26 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.18 cfs @ 0.68 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,119.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P6: Lot R43 Soil Filter

Inflow Area = 1.624 ac, 6.59% Impervious, Inflow Depth = 1.49" for 10-Year event
Inflow = 3.17 cfs @ 12.07 hrs, Volume= 0.201 af
Outflow = 0.16 cfs @ 14.02 hrs, Volume= 0.215 af, Atten= 95%, Lag= 117.3 min
Primary = 0.16 cfs @ 14.02 hrs, Volume= 0.215 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,823.33' Surf.Area= 1,505 sf Storage= 801 cf
Peak Elev= 1,826.77' @ 14.02 hrs Surf.Area= 2,903 sf Storage= 5,643 cf (4,843 cf above start)

Plug-Flow detention time= 1,045.4 min calculated for 0.197 af (98% of inflow)
Center-of-Mass det. time= 903.9 min (1,751.0 - 847.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,822.00'	9,945 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,822.00	1,505	233.0	0.0	0	0	1,505
1,823.50	1,505	233.0	40.0	903	903	1,855
1,825.00	1,505	233.0	40.0	903	1,806	2,204
1,826.00	2,234	252.5	100.0	1,858	3,664	2,996
1,828.00	4,145	312.6	100.0	6,281	9,945	5,757

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,822.00' / 1,822.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	1,822.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,826.75'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,826.90'	**4.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.13 cfs @ 14.02 hrs HW=1,826.77' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.13 cfs of 8.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.10 fps)
  └**3=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.50 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,823.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P7: R40 Gravel Wetland

Inflow Area = 3.407 ac, 26.21% Impervious, Inflow Depth = 1.66" for 10-Year event
Inflow = 4.32 cfs @ 12.06 hrs, Volume= 0.472 af
Outflow = 0.05 cfs @ 33.83 hrs, Volume= 0.369 af, Atten= 99%, Lag= 1,306.0 min
Primary = 0.05 cfs @ 33.83 hrs, Volume= 0.369 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,878.66' Surf.Area= 2,904 sf Storage= 3,090 cf
Peak Elev= 1,881.99' @ 33.83 hrs Surf.Area= 12,239 sf Storage= 19,140 cf (16,050 cf above start)

Plug-Flow detention time= 3,546.7 min calculated for 0.298 af (63% of inflow)
Center-of-Mass det. time= 2,694.7 min (3,743.5 - 1,048.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,876.00'	4,453 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,876.00'	4,490 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,879.00'	867 cf	**Forebay (Irregular)** Listed below (Recalc)
#4	1,880.50'	21,050 cf	**Ponding (Irregular)** Listed below (Recalc)
		30,860 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,451	148.5	0.0	0	0	1,451
1,879.00	1,451	148.5	40.0	1,741	1,741	1,897
1,880.50	2,190	179.7	100.0	2,712	4,453	2,748

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,453	157.2	0.0	0	0	1,453
1,879.00	1,453	157.2	40.0	1,744	1,744	1,925
1,880.50	2,237	191.9	100.0	2,746	4,490	2,924

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,879.00	365	83.7	0.0	0	0	365
1,880.50	821	118.0	100.0	867	867	936

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,880.50	5,542	309.5	0	0	5,542
1,882.00	6,999	337.8	9,385	9,385	7,078
1,883.50	8,582	366.0	11,666	21,050	8,744

Device	Routing	Invert	Outlet Devices
#1	Primary	1,878.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,878.00' / 1,877.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,878.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,882.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,882.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 33.83 hrs HW=1,881.99' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 20.66 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.73 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,878.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 16: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af
Outflow = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af, Atten= 95%, Lag= 76.4 min
Primary = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.55' @ 13.25 hrs Surf.Area= 1,899 sf Storage= 2,918 cf (2,703 cf above start)

Plug-Flow detention time= 700.0 min calculated for 0.105 af (96% of inflow)
Center-of-Mass det. time= 638.9 min (1,475.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.11 cfs @ 13.25 hrs HW=2,103.55' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.11 cfs of 11.23 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.58 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.70 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17A: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 2.81 cfs @ 11.97 hrs, Volume= 0.136 af
Outflow = 0.33 cfs @ 12.37 hrs, Volume= 0.136 af, Atten= 88%, Lag= 23.7 min
Primary = 0.33 cfs @ 12.37 hrs, Volume= 0.136 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.62' @ 12.37 hrs Surf.Area= 1,936 sf Storage= 3,060 cf (2,845 cf above start)

Plug-Flow detention time= 596.5 min calculated for 0.131 af (96% of inflow)
Center-of-Mass det. time= 549.4 min (1,382.7 - 833.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.33 cfs @ 12.37 hrs HW=2,103.62' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.33 cfs of 11.38 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.68 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.28 cfs @ 1.13 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17B: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 2.81 cfs @ 11.97 hrs, Volume= 0.136 af
Outflow = 0.33 cfs @ 12.37 hrs, Volume= 0.136 af, Atten= 88%, Lag= 23.7 min
Primary = 0.33 cfs @ 12.37 hrs, Volume= 0.136 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.62' @ 12.37 hrs Surf.Area= 1,936 sf Storage= 3,060 cf (2,845 cf above start)

Plug-Flow detention time= 596.5 min calculated for 0.131 af (96% of inflow)
Center-of-Mass det. time= 549.4 min (1,382.7 - 833.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.33 cfs @ 12.37 hrs HW=2,103.62' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.33 cfs of 11.38 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.68 fps)
└**3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
└**4=Orifice/Grate** (Weir Controls 0.28 cfs @ 1.13 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 18: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 1.85" for 10-Year event
Inflow = 2.70 cfs @ 11.97 hrs, Volume= 0.131 af
Outflow = 0.32 cfs @ 12.34 hrs, Volume= 0.131 af, Atten= 88%, Lag= 22.2 min
Primary = 0.32 cfs @ 12.34 hrs, Volume= 0.131 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,203.62' @ 12.34 hrs Surf.Area= 1,934 sf Storage= 3,055 cf (2,840 cf above start)

Plug-Flow detention time= 605.5 min calculated for 0.126 af (96% of inflow)
Center-of-Mass det. time= 556.1 min (1,379.8 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.32 cfs @ 12.34 hrs HW=2,203.62' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.32 cfs of 11.37 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.67 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.27 cfs @ 1.12 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 19: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 2.49 cfs @ 11.97 hrs, Volume= 0.120 af
Outflow = 0.20 cfs @ 12.58 hrs, Volume= 0.120 af, Atten= 92%, Lag= 36.4 min
Primary = 0.20 cfs @ 12.58 hrs, Volume= 0.120 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,203.58' @ 12.58 hrs Surf.Area= 1,915 sf Storage= 2,979 cf (2,764 cf above start)

Plug-Flow detention time= 649.0 min calculated for 0.115 af (96% of inflow)
Center-of-Mass det. time= 595.8 min (1,425.9 - 830.2)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.58 hrs HW=2,203.58' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.15 cfs @ 0.91 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 20: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 2.38 cfs @ 11.97 hrs, Volume= 0.115 af
Outflow = 0.15 cfs @ 12.89 hrs, Volume= 0.115 af, Atten= 94%, Lag= 55.2 min
Primary = 0.15 cfs @ 12.89 hrs, Volume= 0.115 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.56' @ 12.89 hrs Surf.Area= 1,906 sf Storage= 2,947 cf (2,732 cf above start)

Plug-Flow detention time= 675.1 min calculated for 0.110 af (96% of inflow)
Center-of-Mass det. time= 617.3 min (1,450.6 - 833.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.15 cfs @ 12.89 hrs HW=2,103.56' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.15 cfs of 11.26 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.60 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.10 cfs @ 0.80 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 22: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=2,053.64' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 23: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=2,053.64' (Free Discharge)
↑—**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
↑—**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
—**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
↑—**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 24: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.80 cfs @ 11.97 hrs, Volume= 0.137 af
Outflow = 0.42 cfs @ 12.22 hrs, Volume= 0.137 af, Atten= 85%, Lag= 14.9 min
Primary = 0.42 cfs @ 12.22 hrs, Volume= 0.137 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,053.64' @ 12.22 hrs Surf.Area= 1,948 sf Storage= 3,108 cf (2,893 cf above start)

Plug-Flow detention time= 585.0 min calculated for 0.132 af (96% of inflow)
Center-of-Mass det. time= 537.9 min (1,358.3 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,630	0.0	0	0
2,051.50	1,630	40.0	978	978
2,053.00	1,630	40.0	978	1,956
2,054.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.42 cfs @ 12.22 hrs HW=2,053.64' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.42 cfs of 11.43 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.71 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.37 cfs @ 1.24 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 25: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,053.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=2,053.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 26: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,053.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=2,053.57' (Free Discharge)
↑—**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  ↑—**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    ↑—**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  —**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
↑—**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 27: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,903.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 28: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,903.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 29: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,903.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 30: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,903.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 31: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=2,003.64' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 32: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,803.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,803.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 33: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af
Outflow = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af, Atten= 95%, Lag= 83.6 min
Primary = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.51' @ 13.37 hrs Surf.Area= 972 sf Storage= 1,398 cf (1,293 cf above start)

Plug-Flow detention time= 374.8 min calculated for 0.053 af (96% of inflow)
Center-of-Mass det. time= 328.2 min (1,158.3 - 830.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.05 cfs @ 13.37 hrs HW=1,803.51' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.05 cfs of 11.16 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.53 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.33 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 34: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,803.57' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 35: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,803.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 36: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,823.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,823.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 37: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,823.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,823.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
└**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
└**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 38: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=2,003.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 39: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.85" for 10-Year event
Inflow = 2.24 cfs @ 11.97 hrs, Volume= 0.109 af
Outflow = 0.29 cfs @ 12.28 hrs, Volume= 0.109 af, Atten= 87%, Lag= 18.6 min
Primary = 0.29 cfs @ 12.28 hrs, Volume= 0.109 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,903.61' @ 12.28 hrs Surf.Area= 1,594 sf Storage= 2,472 cf (2,298 cf above start)

Plug-Flow detention time= 511.5 min calculated for 0.105 af (96% of inflow)
Center-of-Mass det. time= 466.3 min (1,289.9 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.29 cfs @ 12.28 hrs HW=1,903.61' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.29 cfs of 11.36 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.66 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.24 cfs @ 1.08 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 40: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 1.77" for 10-Year event
Inflow = 2.15 cfs @ 11.97 hrs, Volume= 0.104 af
Outflow = 0.23 cfs @ 12.41 hrs, Volume= 0.104 af, Atten= 89%, Lag= 26.5 min
Primary = 0.23 cfs @ 12.41 hrs, Volume= 0.104 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,903.59' @ 12.41 hrs Surf.Area= 1,585 sf Storage= 2,441 cf (2,266 cf above start)

Plug-Flow detention time= 529.6 min calculated for 0.100 af (96% of inflow)
Center-of-Mass det. time= 482.1 min (1,309.0 - 826.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.23 cfs @ 12.41 hrs HW=1,903.59' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.23 cfs of 11.32 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.64 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.18 cfs @ 0.97 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 41: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,803.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 42: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,803.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=1,803.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 43: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 2.06 cfs @ 11.97 hrs, Volume= 0.100 af
Outflow = 0.18 cfs @ 12.52 hrs, Volume= 0.100 af, Atten= 91%, Lag= 33.1 min
Primary = 0.18 cfs @ 12.52 hrs, Volume= 0.100 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.57' @ 12.52 hrs Surf.Area= 1,577 sf Storage= 2,414 cf (2,239 cf above start)

Plug-Flow detention time= 546.1 min calculated for 0.096 af (96% of inflow)
Center-of-Mass det. time= 497.6 min (1,327.8 - 830.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.18 cfs @ 12.52 hrs HW=1,753.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.18 cfs of 11.28 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.61 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.13 cfs @ 0.87 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 44: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 1.85" for 10-Year event
Inflow = 2.23 cfs @ 11.97 hrs, Volume= 0.109 af
Outflow = 0.29 cfs @ 12.29 hrs, Volume= 0.109 af, Atten= 87%, Lag= 18.9 min
Primary = 0.29 cfs @ 12.29 hrs, Volume= 0.109 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.61' @ 12.29 hrs Surf.Area= 1,594 sf Storage= 2,471 cf (2,297 cf above start)

Plug-Flow detention time= 510.6 min calculated for 0.105 af (96% of inflow)
Center-of-Mass det. time= 466.7 min (1,290.3 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.29 cfs @ 12.29 hrs HW=1,753.61' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.29 cfs of 11.36 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.66 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.24 cfs @ 1.07 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 45: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.11 hrs, Volume= 0.091 af, Atten= 94%, Lag= 68.2 min
Primary = 0.10 cfs @ 13.11 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.54' @ 13.11 hrs Surf.Area= 1,562 sf Storage= 2,361 cf (2,186 cf above start)

Plug-Flow detention time= 585.5 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.5 min (1,368.0 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.11 hrs HW=1,753.54' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  - **4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 46: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,753.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 47: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,753.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 48: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,853.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 49: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,853.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 50: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=1,853.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link SP1:

Inflow Area = 328.419 ac, 5.67% Impervious, Inflow Depth > 1.28" for 10-Year event
Inflow = 186.78 cfs @ 12.61 hrs, Volume= 35.092 af
Primary = 186.78 cfs @ 12.61 hrs, Volume= 35.092 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 6.579 ac, 3.57% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 8.83 cfs @ 12.12 hrs, Volume= 0.780 af
Primary = 8.83 cfs @ 12.12 hrs, Volume= 0.780 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 1.43" for 10-Year event
Inflow = 13.39 cfs @ 12.28 hrs, Volume= 2.453 af
Primary = 13.39 cfs @ 12.28 hrs, Volume= 2.453 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 12.275 ac, 33.70% Impervious, Inflow Depth > 1.78" for 10-Year event
Inflow = 2.48 cfs @ 12.79 hrs, Volume= 1.822 af
Primary = 2.48 cfs @ 12.79 hrs, Volume= 1.822 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 1.275 ac, 5.49% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 1.84 cfs @ 12.16 hrs, Volume= 0.151 af
Primary = 1.84 cfs @ 12.16 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 4.241 ac, 25.14% Impervious, Inflow Depth > 1.79" for 10-Year event
Inflow = 0.46 cfs @ 12.06 hrs, Volume= 0.634 af
Primary = 0.46 cfs @ 12.06 hrs, Volume= 0.634 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 61.872 ac, 2.01% Impervious, Inflow Depth = 1.30" for 10-Year event
Inflow = 48.32 cfs @ 12.10 hrs, Volume= 6.678 af
Primary = 48.32 cfs @ 12.10 hrs, Volume= 6.678 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 2.355 ac, 0.51% Impervious, Inflow Depth = 1.36" for 10-Year event
Inflow = 2.89 cfs @ 12.22 hrs, Volume= 0.266 af
Primary = 2.89 cfs @ 12.22 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 45.67 cfs @ 12.18 hrs, Volume= 8.600 af
Primary = 45.67 cfs @ 12.18 hrs, Volume= 8.600 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 0.872 ac, 6.42% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 1.69 cfs @ 12.05 hrs, Volume= 0.103 af
Primary = 1.69 cfs @ 12.05 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.344 ac, 19.19% Impervious, Inflow Depth = 1.63" for 10-Year event
Inflow = 0.81 cfs @ 12.04 hrs, Volume= 0.047 af
Primary = 0.81 cfs @ 12.04 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 0.148 ac, 24.32% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 0.37 cfs @ 12.03 hrs, Volume= 0.021 af
Primary = 0.37 cfs @ 12.03 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: WS 1 Runoff Area=3.567 ac 0.53% Impervious Runoff Depth=1.97"
Flow Length=1,065' Tc=51.7 min CN=77 Runoff=4.10 cfs 0.585 af

Subcatchment1-1: WS 1-1 Runoff Area=1.814 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=593' Tc=27.3 min CN=77 Runoff=3.25 cfs 0.298 af

Subcatchment1-2: WS 1-2 Runoff Area=2.282 ac 0.09% Impervious Runoff Depth=2.05"
Flow Length=674' Tc=12.0 min CN=78 Runoff=6.64 cfs 0.389 af

Subcatchment1-3: WS 1-3 Runoff Area=8.349 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=1,281' Tc=30.5 min CN=77 Runoff=13.93 cfs 1.370 af

Subcatchment1-4: WS 1-4 Runoff Area=24.316 ac 0.36% Impervious Runoff Depth=1.89"
Flow Length=2,809' Tc=31.6 min CN=76 Runoff=37.90 cfs 3.836 af

Subcatchment1-5: WS 1-5 Runoff Area=61.115 ac 0.78% Impervious Runoff Depth=1.67"
Flow Length=6,226' Tc=61.0 min CN=73 Runoff=51.64 cfs 8.518 af

Subcatchment1-6: WS 1-6 Runoff Area=1.209 ac 42.76% Impervious Runoff Depth=2.55"
Flow Length=409' Tc=1.5 min CN=84 Runoff=5.87 cfs 0.257 af

Subcatchment1-7: WS 1-7 Runoff Area=31.149 ac 0.22% Impervious Runoff Depth=1.74"
Flow Length=4,331' Tc=43.2 min CN=74 Runoff=35.58 cfs 4.529 af

Subcatchment1-8: WS 1-8 Runoff Area=63.400 ac 0.07% Impervious Runoff Depth=1.82"
Flow Length=4,770' Tc=52.2 min CN=75 Runoff=66.16 cfs 9.606 af

Subcatchment1A: WS 1A Runoff Area=3.076 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=821' Tc=28.5 min CN=77 Runoff=5.36 cfs 0.505 af

Subcatchment1B: WS 1B Runoff Area=6.578 ac 7.74% Impervious Runoff Depth=2.13"
Flow Length=2,480' Tc=16.6 min CN=79 Runoff=17.11 cfs 1.166 af

Subcatchment1B1: WS 1B1 - Lot G Runoff Area=2.385 ac 32.08% Impervious Runoff Depth=2.55"
Flow Length=485' Tc=2.2 min CN=84 Runoff=11.26 cfs 0.506 af

Subcatchment1C: WS 1C Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=1,014' Tc=22.9 min CN=77 Runoff=5.82 cfs 0.477 af

Subcatchment1C1: WS 1C1 Runoff Area=15.551 ac 21.11% Impervious Runoff Depth=2.37"
Flow Length=2,648' Tc=18.9 min CN=82 Runoff=42.21 cfs 3.078 af

Subcatchment1C2: WS 1C2- Ex lot E Runoff Area=5.919 ac 52.98% Impervious Runoff Depth=2.92"
Flow Length=886' Tc=5.2 min CN=88 Runoff=29.63 cfs 1.438 af

Subcatchment1D: WS 1D- Ex Timbers Runoff Area=61.650 ac 9.88% Impervious Runoff Depth=1.89"
Flow Length=4,707' Tc=53.2 min CN=76 Runoff=66.43 cfs 9.726 af

Subcatchment1D1: WS 1D1 Runoff Area=7.555 ac 24.78% Impervious Runoff Depth=2.13"
Flow Length=1,421' Tc=2.4 min CN=79 Runoff=31.13 cfs 1.339 af

Subcatchment1D2: WS 1D2 Runoff Area=4.819 ac 0.17% Impervious Runoff Depth=1.60"
Flow Length=1,223' Tc=13.4 min CN=72 Runoff=10.31 cfs 0.643 af

Subcatchment1D3: WS 1D3 Runoff Area=2.624 ac 12.54% Impervious Runoff Depth=1.74"
Flow Length=731' Tc=7.2 min CN=74 Runoff=7.71 cfs 0.381 af

Subcatchment1D4: WS 1D4 Runoff Area=2.071 ac 15.79% Impervious Runoff Depth=1.89"
Flow Length=1,306' Tc=6.2 min CN=76 Runoff=6.79 cfs 0.327 af

Subcatchment1D5: Untreated from Runoff Area=2.466 ac 16.50% Impervious Runoff Depth=2.21"
Flow Length=924' Tc=2.8 min CN=80 Runoff=10.49 cfs 0.454 af

Subcatchment1D6: WS 1D6 Runoff Area=1.829 ac 34.99% Impervious Runoff Depth=2.64"
Flow Length=465' Tc=5.4 min CN=85 Runoff=8.36 cfs 0.402 af

Subcatchment1D7: WS 1D7 Runoff Area=11.787 ac 0.37% Impervious Runoff Depth=1.74"
Flow Length=2,532' Tc=42.2 min CN=74 Runoff=13.69 cfs 1.714 af

Subcatchment2: WS 2 Runoff Area=1.275 ac 5.49% Impervious Runoff Depth=2.05"
Flow Length=582' Tc=22.5 min CN=78 Runoff=2.69 cfs 0.218 af

Subcatchment2A: WS 2A Runoff Area=2.084 ac 44.15% Impervious Runoff Depth=2.82"
Flow Length=557' Tc=2.8 min CN=87 Runoff=10.91 cfs 0.490 af

Subcatchment3: WS 3 Runoff Area=0.172 ac 21.51% Impervious Runoff Depth=2.37"
Flow Length=189' Tc=14.2 min CN=82 Runoff=0.54 cfs 0.034 af

Subcatchment3A: WS 3A Runoff Area=1.985 ac 5.49% Impervious Runoff Depth=2.13"
Flow Length=928' Tc=29.5 min CN=79 Runoff=3.67 cfs 0.352 af

Subcatchment4: WS 4 Runoff Area=4.363 ac 0.21% Impervious Runoff Depth=1.97"
Flow Length=905' Tc=13.2 min CN=77 Runoff=11.72 cfs 0.716 af

Subcatchment4A: WS 4A Runoff Area=20.801 ac 1.45% Impervious Runoff Depth=1.89"
Flow Length=2,842' Tc=12.1 min CN=76 Runoff=55.66 cfs 3.282 af

Subcatchment4B: WS 4B Runoff Area=6.365 ac 1.02% Impervious Runoff Depth=1.89"
Flow Length=1,142' Tc=13.4 min CN=76 Runoff=16.29 cfs 1.004 af

Subcatchment4C: WS 4C Runoff Area=25.551 ac 0.15% Impervious Runoff Depth=1.82"
Flow Length=3,294' Tc=38.4 min CN=75 Runoff=33.27 cfs 3.871 af

Subcatchment5: WS 5 Runoff Area=2.355 ac 0.51% Impervious Runoff Depth=1.97"
Flow Length=887' Tc=26.8 min CN=77 Runoff=4.27 cfs 0.387 af

Subcatchment6: WS 6 Runoff Area=6.257 ac 0.66% Impervious Runoff Depth=1.97"
Flow Length=1,268' Tc=15.1 min CN=77 Runoff=15.71 cfs 1.027 af

Subcatchment6A: WS 6A Runoff Area=12.004 ac 1.64% Impervious Runoff Depth=1.89"
Flow Length=2,029' Tc=25.5 min CN=76 Runoff=21.51 cfs 1.894 af

Subcatchment6B: WS 6B Runoff Area=2.722 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=449' Tc=14.8 min CN=77 Runoff=6.91 cfs 0.447 af

Subcatchment6C: WS 6C Runoff Area=2.387 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=593' Tc=31.4 min CN=77 Runoff=3.91 cfs 0.392 af

Subcatchment7: WS 7 Runoff Area=0.872 ac 6.42% Impervious Runoff Depth=2.05"
Flow Length=518' Tc=13.0 min CN=78 Runoff=2.45 cfs 0.149 af

Subcatchment7A: WS 7A Runoff Area=2.921 ac 40.05% Impervious Runoff Depth=2.73"
Flow Length=446' Tc=2.4 min CN=86 Runoff=14.91 cfs 0.664 af

Subcatchment7B: WS 7B Runoff Area=0.886 ac 0.00% Impervious Runoff Depth=2.05"
Flow Length=334' Tc=5.9 min CN=78 Runoff=3.14 cfs 0.151 af

Subcatchment7C: WS 7C Runoff Area=5.244 ac 0.74% Impervious Runoff Depth=1.82"
Flow Length=929' Tc=18.3 min CN=75 Runoff=10.98 cfs 0.795 af

Subcatchment7D: WS 7D Runoff Area=1.624 ac 6.59% Impervious Runoff Depth=2.13"
Flow Length=535' Tc=14.2 min CN=79 Runoff=4.56 cfs 0.288 af

Subcatchment7F: WS 7F Runoff Area=2.020 ac 5.15% Impervious Runoff Depth=2.05"
Flow Length=443' Tc=13.2 min CN=78 Runoff=5.65 cfs 0.345 af

Subcatchment7G: WS 7G Runoff Area=2.700 ac 8.89% Impervious Runoff Depth=2.13"
Flow Length=926' Tc=36.7 min CN=79 Runoff=4.32 cfs 0.479 af

Subcatchment7H: WS 7H Runoff Area=1.781 ac 5.61% Impervious Runoff Depth=1.74"
Flow Length=559' Tc=7.7 min CN=74 Runoff=5.14 cfs 0.259 af

Subcatchment8: WS 8 Runoff Area=0.344 ac 19.19% Impervious Runoff Depth=2.29"
Flow Length=327' Tc=11.5 min CN=81 Runoff=1.13 cfs 0.066 af

Subcatchment9: WS 9 Runoff Area=0.148 ac 24.32% Impervious Runoff Depth=2.37"
Flow Length=211' Slope=0.0900 '/' Tc=11.1 min CN=82 Runoff=0.51 cfs 0.029 af

Subcatchment10: WS 10 Runoff Area=1.228 ac 0.00% Impervious Runoff Depth=2.05"
Flow Length=307' Tc=7.6 min CN=78 Runoff=4.18 cfs 0.210 af

Subcatchment10A: WS 10A Runoff Area=2.911 ac 6.32% Impervious Runoff Depth=2.05"
Flow Length=580' Tc=21.0 min CN=78 Runoff=6.39 cfs 0.497 af

Subcatchment10B: WS 10B Runoff Area=3.805 ac 0.11% Impervious Runoff Depth=1.60"
Flow Length=685' Tc=13.4 min CN=72 Runoff=8.14 cfs 0.508 af

Subcatchment11: WS 11 Runoff Area=2.440 ac 2.09% Impervious Runoff Depth=2.05"
Flow Length=580' Tc=22.3 min CN=78 Runoff=5.18 cfs 0.416 af

Subcatchment11A: WS 11A Runoff Area=2.606 ac 65.23% Impervious Runoff Depth=3.21"
Flow Length=440' Tc=2.9 min CN=91 Runoff=14.96 cfs 0.697 af

Subcatchment11B: WS 11B Runoff Area=2.488 ac 37.74% Impervious Runoff Depth=2.37"
Flow Length=382' Tc=6.2 min CN=82 Runoff=10.02 cfs 0.492 af

Subcatchment12: WS 12 Runoff Area=3.052 ac 1.15% Impervious Runoff Depth=2.05"
Flow Length=740' Tc=12.4 min CN=78 Runoff=8.76 cfs 0.521 af

Subcatchment12A: WS 12A Runoff Area=1.392 ac 2.66% Impervious Runoff Depth=2.05"
Flow Length=374' Tc=2.2 min CN=78 Runoff=5.54 cfs 0.238 af

Subcatchment12B: WS 12B Runoff Area=1.973 ac 2.53% Impervious Runoff Depth=1.60"
Flow Length=801' Tc=23.8 min CN=72 Runoff=3.06 cfs 0.263 af

Subcatchment12C: WS 12C Runoff Area=1.116 ac 0.00% Impervious Runoff Depth=1.46"
Flow Length=476' Tc=12.7 min CN=70 Runoff=2.22 cfs 0.136 af

Subcatchment12D: WS 12D Runoff Area=1.998 ac 21.72% Impervious Runoff Depth=2.21"
Flow Length=681' Tc=13.3 min CN=80 Runoff=6.00 cfs 0.368 af

Subcatchment12E: WS 12E Runoff Area=1.094 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=302' Tc=12.0 min CN=77 Runoff=3.06 cfs 0.180 af

Subcatchment12F: WS 12F Runoff Area=2.076 ac 10.74% Impervious Runoff Depth=2.05"
Flow Length=919' Tc=24.3 min CN=78 Runoff=4.17 cfs 0.354 af

Subcatchment12G: WS 12G Runoff Area=4.029 ac 3.67% Impervious Runoff Depth=1.82"
Flow Length=1,142' Tc=30.4 min CN=75 Runoff=6.16 cfs 0.610 af

Subcatchment13: WS 13 Runoff Area=0.338 ac 21.89% Impervious Runoff Depth=2.37"
Flow Length=290' Tc=11.5 min CN=82 Runoff=1.15 cfs 0.067 af

Subcatchment15H: WS 15H Runoff Area=18.929 ac 0.74% Impervious Runoff Depth=1.60"
Flow Length=3,396' Tc=48.8 min CN=72 Runoff=17.90 cfs 2.527 af

Subcatchment64S: WS 13A Runoff Area=2.849 ac 0.00% Impervious Runoff Depth=2.05"
Flow Length=612' Tc=15.1 min CN=78 Runoff=7.46 cfs 0.486 af

Subcatchment65S: WS 13B Runoff Area=1.525 ac 34.36% Impervious Runoff Depth=2.46"
Flow Length=331' Tc=1.3 min CN=83 Runoff=7.26 cfs 0.313 af

Subcatchment66S: WS 13C Runoff Area=2.469 ac 36.45% Impervious Runoff Depth=2.29"
Flow Length=409' Tc=8.9 min CN=81 Runoff=8.92 cfs 0.471 af

SubcatchmentR16: R16 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=3.22 cfs 0.156 af

SubcatchmentR17A: R17A Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=81 Runoff=3.93 cfs 0.191 af

SubcatchmentR17B: R17B Runoff Area=1.000 ac 35.00% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=81 Runoff=3.93 cfs 0.191 af

SubcatchmentR18: R18 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=84 Runoff=3.68 cfs 0.180 af

SubcatchmentR19: R19 Runoff Area=0.850 ac 35.18% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=3.45 cfs 0.168 af

SubcatchmentR20: R20 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=81 Runoff=3.33 cfs 0.162 af

SubcatchmentR22: R22 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR23: R23 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR24: R24 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.78 cfs 0.187 af

SubcatchmentR25: R25 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR26: R26 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR27: R27 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR28: R28 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR29: R29 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR30: R30 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR31: R31 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR32: R32 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR33: R33 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=1.59 cfs 0.077 af

SubcatchmentR34: R34 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR35: R35 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR36: R36 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR37: R37 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR38: R38 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR39: R39 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=84 Runoff=3.05 cfs 0.150 af

SubcatchmentR40: R40 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=83 Runoff=2.95 cfs 0.144 af

SubcatchmentR41: R41 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR42: R42 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR43: R43 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=2.86 cfs 0.140 af

SubcatchmentR44: R44 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=84 Runoff=3.04 cfs 0.149 af

SubcatchmentR45: R45 Runoff Area=0.704 ac 32.53% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR46: R46 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR47: R47 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR48: R48 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR49: R49 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR50: R50 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

Reach 17R: stream Avg. Flow Depth=0.56' Max Vel=9.15 fps Inflow=23.35 cfs 3.000 af
n=0.050 L=204.0' S=0.2696 '/' Capacity=62.68 cfs Outflow=23.28 cfs 3.000 af

Reach 19R: stream Avg. Flow Depth=0.87' Max Vel=9.18 fps Inflow=22.92 cfs 2.762 af
n=0.050 L=254.0' S=0.2087 '/' Capacity=63.50 cfs Outflow=22.66 cfs 2.762 af

Reach 23R: ditch Avg. Flow Depth=0.62' Max Vel=7.45 fps Inflow=16.66 cfs 1.973 af
n=0.050 L=550.0' S=0.1727 '/' Capacity=38.44 cfs Outflow=16.56 cfs 1.973 af

Reach 24R: ditch Avg. Flow Depth=0.57' Max Vel=5.96 fps Inflow=14.24 cfs 1.639 af
n=0.069 L=400.0' S=0.2375 '/' Capacity=163.35 cfs Outflow=14.17 cfs 1.639 af

Reach 29R: stream Avg. Flow Depth=1.69' Max Vel=9.24 fps Inflow=74.01 cfs 11.461 af
n=0.050 L=645.0' S=0.0946 '/' Capacity=100.62 cfs Outflow=72.75 cfs 11.460 af

Reach 32R: dead end stream Avg. Flow Depth=0.81' Max Vel=8.31 fps Inflow=25.63 cfs 5.397 af
n=0.050 L=770.0' S=0.1610 '/' Capacity=76.81 cfs Outflow=25.54 cfs 5.396 af

Reach 34R: stream Avg. Flow Depth=0.81' Max Vel=8.01 fps Inflow=24.82 cfs 4.498 af
n=0.050 L=370.0' S=0.1486 '/' Capacity=73.80 cfs Outflow=24.76 cfs 4.498 af

Reach 35R: flow in wetland Avg. Flow Depth=0.56' Max Vel=2.90 fps Inflow=20.46 cfs 3.486 af
n=0.100 L=600.0' S=0.0917 '/' Capacity=53.58 cfs Outflow=20.35 cfs 3.486 af

Reach 39R: stream Avg. Flow Depth=0.43' Max Vel=5.91 fps Inflow=11.97 cfs 1.377 af
n=0.050 L=1,100.0' S=0.1527 '/' Capacity=161.10 cfs Outflow=11.35 cfs 1.377 af

Reach 40R: stream Avg. Flow Depth=1.09' Max Vel=8.47 fps Inflow=66.71 cfs 9.052 af
n=0.050 L=770.0' S=0.1013 '/' Capacity=186.92 cfs Outflow=64.72 cfs 9.052 af

Reach 42R: stream Avg. Flow Depth=0.78' Max Vel=8.78 fps Inflow=40.00 cfs 5.771 af
n=0.050 L=2,440.0' S=0.1639 '/' Capacity=60.47 cfs Outflow=39.24 cfs 5.771 af

Reach 45R: flow in wetland Avg. Flow Depth=0.94' Max Vel=4.57 fps Inflow=34.69 cfs 4.220 af
n=0.100 L=1,200.0' S=0.1442 '/' Capacity=37.72 cfs Outflow=33.85 cfs 4.220 af

Reach 102R: stream Avg. Flow Depth=2.08' Max Vel=9.78 fps Inflow=285.86 cfs 50.313 af
n=0.050 L=890.0' S=0.0562 '/' Capacity=883.89 cfs Outflow=285.22 cfs 50.312 af

Reach 103R: stream Avg. Flow Depth=1.46' Max Vel=9.15 fps Inflow=126.07 cfs 17.970 af
n=0.050 L=275.0' S=0.0800 '/' Capacity=440.61 cfs Outflow=125.77 cfs 17.970 af

Reach 104R: stream Avg. Flow Depth=1.55' Max Vel=10.62 fps Inflow=156.79 cfs 30.311 af
n=0.050 L=495.0' S=0.1010 '/' Capacity=495.10 cfs Outflow=156.55 cfs 30.310 af

Reach 108R: stream Avg. Flow Depth=0.57' Max Vel=7.18 fps Inflow=35.58 cfs 4.529 af
n=0.050 L=1,968.0' S=0.1443 '/' Capacity=291.19 cfs Outflow=34.93 cfs 4.529 af

Reach 110R: stream Avg. Flow Depth=1.51' Max Vel=12.15 fps Inflow=138.12 cfs 23.756 af
n=0.050 L=1,175.0' S=0.1464 '/' Capacity=465.00 cfs Outflow=137.67 cfs 23.756 af

Reach 111R: upperstream Avg. Flow Depth=0.56' Max Vel=7.28 fps Inflow=14.69 cfs 2.116 af
n=0.050 L=686.0' S=0.1808 '/' Capacity=139.11 cfs Outflow=14.62 cfs 2.116 af

Reach 112R: stream Avg. Flow Depth=0.57' Max Vel=7.63 fps Inflow=25.47 cfs 3.534 af
n=0.050 L=1,230.0' S=0.1772 '/' Capacity=210.11 cfs Outflow=23.68 cfs 3.534 af

Reach 113R: ditch Avg. Flow Depth=1.40' Max Vel=4.89 fps Inflow=23.28 cfs 3.000 af
n=0.069 L=245.0' S=0.0694 '/' Capacity=46.73 cfs Outflow=23.08 cfs 3.000 af

Pond 10P: new 36 Peak Elev=2.14' Inflow=26.92 cfs 3.520 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0300 '/' Outflow=26.92 cfs 3.520 af

Pond 12P: new 48 Peak Elev=3.87' Inflow=83.33 cfs 12.487 af
48.0" Round Culvert n=0.013 L=50.0' S=0.0560 '/' Outflow=83.33 cfs 12.487 af

Pond 16P: trunk line from condos Peak Elev=1,714.95' Inflow=24.33 cfs 1.189 af
30.0" Round Culvert n=0.013 L=700.0' S=0.0257 '/' Outflow=24.33 cfs 1.189 af

Pond 18P: Culvert 5 - Trail Inflow=23.35 cfs 3.000 af
Primary=23.35 cfs 3.000 af

Pond 20P: road culvert Peak Elev=1,775.33' Inflow=22.92 cfs 2.762 af
72.0" Round Culvert w/ 24.0" inside fill n=0.025 L=50.0' S=0.0200 '/' Outflow=22.92 cfs 2.762 af

Pond 21P: Pipe Down Slope Peak Elev=1,813.80' Storage=0.002 af Inflow=19.86 cfs 2.499 af
48.0" Round Culvert n=0.025 L=100.0' S=0.3200 '/' Outflow=19.86 cfs 2.499 af

Pond 22P: Pipe Down Slope Peak Elev=1,823.58' Inflow=19.86 cfs 2.499 af
48.0" Round Culvert n=0.025 L=100.0' S=0.0400 '/' Outflow=19.86 cfs 2.499 af

Pond 25P: road culvert Inflow=6.16 cfs 0.610 af
Primary=6.16 cfs 0.610 af

Pond 26P: road culvert Inflow=4.17 cfs 0.354 af
Primary=4.17 cfs 0.354 af

Pond 28P: road culvert Inflow=16.66 cfs 1.973 af
Primary=16.66 cfs 1.973 af

Pond 30P: Culvert 4 -Trail Inflow=32.61 cfs 3.271 af
Primary=32.61 cfs 3.271 af

Pond 31P: Trail Culvert Peak Elev=1,628.32' Inflow=41.19 cfs 7.376 af
72.0" Round Culvert n=0.025 L=300.0' S=0.0533 '/' Outflow=41.19 cfs 7.376 af

Pond 33P: Culvert 12 -Road Inflow=25.63 cfs 5.397 af
Primary=25.63 cfs 5.397 af

Pond 36P: trail culvert Inflow=20.46 cfs 3.486 af
Primary=20.46 cfs 3.486 af

Pond 37P: Road E Culvert Inflow=24.44 cfs 4.320 af
Primary=24.44 cfs 4.320 af

Pond 38P: Road A Culvert Inflow=19.46 cfs 3.065 af
Primary=19.46 cfs 3.065 af

Pond 41P: Culvert 3 - Trail 3 Inflow=66.71 cfs 9.052 af
Primary=66.71 cfs 9.052 af

Pond 43P: Culvert 11 -Trail 3 Inflow=36.65 cfs 5.224 af
Primary=36.65 cfs 5.224 af

Pond 44P: Culvert 13 -Road A Inflow=34.08 cfs 4.052 af
Primary=34.08 cfs 4.052 af

Pond 105P: Culvert 1 - Trail Inflow=152.31 cfs 28.204 af
Primary=152.31 cfs 28.204 af

Pond 106P: Culvert 2- Trail 2 Inflow=126.07 cfs 17.970 af
Primary=126.07 cfs 17.970 af

Pond 107P: Culvert 10 -Trail 2 Inflow=35.58 cfs 4.529 af
Primary=35.58 cfs 4.529 af

Pond 109P: Culvert 9-Trail Crossing Inflow=68.60 cfs 12.696 af
Primary=68.60 cfs 12.696 af

Pond P1: Condos Complex Wet Pond Peak Elev=1,686.36' Storage=104,265 cf Inflow=42.37 cfs 2.459 af
Primary=7.21 cfs 2.049 af Secondary=4.41 cfs 0.402 af Outflow=11.62 cfs 2.451 af

Pond P11: Parking Lot G Wet Pond Peak Elev=1,536.81' Storage=100,876 cf Inflow=40.48 cfs 1.944 af
Primary=3.19 cfs 1.809 af Secondary=0.00 cfs 0.000 af Outflow=3.19 cfs 1.809 af

Pond P12: Drop-off Parking Lot Soil Peak Elev=1,472.79' Storage=20,781 cf Inflow=11.95 cfs 0.842 af
Primary=1.78 cfs 0.842 af Secondary=0.00 cfs 0.000 af Outflow=1.78 cfs 0.842 af

Pond P13: Parking Lot H Wet Pond Peak Elev=1,568.90' Storage=32,014 cf Inflow=14.91 cfs 0.664 af
Primary=0.84 cfs 0.662 af Secondary=0.00 cfs 0.000 af Outflow=0.84 cfs 0.662 af

Pond P14: Timbers 1-7 Wet Pond Peak Elev=1,722.86' Storage=57,703 cf Inflow=31.13 cfs 1.339 af
Primary=6.55 cfs 1.332 af Secondary=0.44 cfs 0.003 af Outflow=6.99 cfs 1.335 af

Pond P15: Timbers 8-10 Soil Filter Peak Elev=2,088.20' Storage=8,799 cf Inflow=5.87 cfs 0.257 af
Primary=0.06 cfs 0.257 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.257 af

Pond P16: Timbers 11-14 Soil Filter Peak Elev=2,123.91' Storage=8,917 cf Inflow=8.36 cfs 0.402 af
Primary=2.06 cfs 0.402 af Secondary=0.00 cfs 0.000 af Outflow=2.06 cfs 0.402 af

Pond P6: Lot R43 Soil Filter Peak Elev=1,826.90' Storage=6,012 cf Inflow=4.56 cfs 0.288 af
Primary=1.22 cfs 0.302 af Secondary=0.00 cfs 0.000 af Outflow=1.22 cfs 0.302 af

Pond P7: R40 Gravel Wetland Peak Elev=1,882.04' Storage=19,448 cf Inflow=8.14 cfs 0.662 af
Primary=0.25 cfs 0.481 af Secondary=0.14 cfs 0.074 af Outflow=0.40 cfs 0.554 af

Pond RG 16: Large Rain Garden Peak Elev=2,103.72' Storage=3,264 cf Inflow=3.22 cfs 0.156 af
Primary=0.77 cfs 0.156 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.156 af

Pond RG 17A: Large Rain Garden Peak Elev=2,103.96' Storage=3,742 cf Inflow=3.93 cfs 0.191 af
Primary=1.19 cfs 0.191 af Secondary=0.00 cfs 0.000 af Outflow=1.19 cfs 0.191 af

Pond RG 17B: Large Rain Garden Peak Elev=2,103.96' Storage=3,742 cf Inflow=3.93 cfs 0.191 af
Primary=1.19 cfs 0.191 af Secondary=0.00 cfs 0.000 af Outflow=1.19 cfs 0.191 af

Pond RG 18: Large Rain Garden Peak Elev=2,203.93' Storage=3,678 cf Inflow=3.68 cfs 0.180 af
Primary=1.15 cfs 0.180 af Secondary=0.00 cfs 0.000 af Outflow=1.15 cfs 0.180 af

Pond RG 19: Large Rain Garden Peak Elev=2,203.82' Storage=3,463 cf Inflow=3.45 cfs 0.168 af
Primary=1.00 cfs 0.168 af Secondary=0.00 cfs 0.000 af Outflow=1.00 cfs 0.168 af

Pond RG 20: Large Rain Garden Peak Elev=2,103.77' Storage=3,365 cf Inflow=3.33 cfs 0.162 af
Primary=0.93 cfs 0.162 af Secondary=0.00 cfs 0.000 af Outflow=0.93 cfs 0.162 af

Pond RG 22: Medium Rain Garden Peak Elev=2,053.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 23: Medium Rain Garden Peak Elev=2,053.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 24: Large Rain Garden Peak Elev=2,053.98' Storage=3,793 cf Inflow=3.78 cfs 0.187 af
Primary=1.22 cfs 0.187 af Secondary=0.00 cfs 0.000 af Outflow=1.22 cfs 0.187 af

Pond RG 25: Small Rain Garden Peak Elev=2,053.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 26: Small Rain Garden Peak Elev=2,053.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 27: Small Rain Garden Peak Elev=1,903.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 28: Small Rain Garden Peak Elev=1,903.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 29: Small Rain Garden Peak Elev=1,903.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 30: Small Rain Garden Peak Elev=1,903.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 31: Medium Rain Garden Peak Elev=2,003.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 32: Medium Rain Garden Peak Elev=1,803.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 33: Small Rain Garden Peak Elev=1,803.67' Storage=1,557 cf Inflow=1.59 cfs 0.077 af
Primary=0.53 cfs 0.077 af Secondary=0.00 cfs 0.000 af Outflow=0.53 cfs 0.077 af

Pond RG 34: Small Rain Garden Peak Elev=1,803.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 35: Small Rain Garden Peak Elev=1,803.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 36: Small Rain Garden Peak Elev=1,823.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 37: Small Rain Garden Peak Elev=1,823.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 38: Medium Rain Garden Peak Elev=2,003.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 39: Medium Rain Garden Peak Elev=1,903.90' Storage=2,947 cf Inflow=3.05 cfs 0.150 af
Primary=1.11 cfs 0.150 af Secondary=0.00 cfs 0.000 af Outflow=1.11 cfs 0.150 af

Pond RG 40: Medium Rain Garden Peak Elev=1,903.85' Storage=2,866 cf Inflow=2.95 cfs 0.144 af
Primary=1.04 cfs 0.144 af Secondary=0.00 cfs 0.000 af Outflow=1.04 cfs 0.144 af

Pond RG 41: Small Rain Garden Peak Elev=1,803.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 42: Medium Rain Garden Peak Elev=1,803.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 43: Medium Rain Garden Peak Elev=1,753.80' Storage=2,789 cf Inflow=2.86 cfs 0.140 af
Primary=0.97 cfs 0.140 af Secondary=0.00 cfs 0.000 af Outflow=0.97 cfs 0.140 af

Pond RG 44: Medium Rain Garden Peak Elev=1,753.89' Storage=2,945 cf Inflow=3.04 cfs 0.149 af
Primary=1.10 cfs 0.149 af Secondary=0.00 cfs 0.000 af Outflow=1.10 cfs 0.149 af

Pond RG 45: Medium Rain Garden Peak Elev=1,753.72' Storage=2,656 cf Inflow=2.67 cfs 0.130 af
Primary=0.76 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.76 cfs 0.130 af

Pond RG 46: Medium Rain Garden Peak Elev=1,753.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 47: Medium Rain Garden Peak Elev=1,753.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 48: Medium Rain Garden Peak Elev=1,853.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 49: Medium Rain Garden Peak Elev=1,853.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 50: Medium Rain Garden Peak Elev=1,853.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Link SP1: Inflow=291.74 cfs 51.402 af
Primary=291.74 cfs 51.402 af

Link SP10:
Primary=0.00 cfs 0.000 af

Link SP11: Inflow=12.91 cfs 1.123 af
Primary=12.91 cfs 1.123 af

Link SP12: Inflow=26.92 cfs 3.520 af
Primary=26.92 cfs 3.520 af

Link SP13: Inflow=12.09 cfs 2.518 af
Primary=12.09 cfs 2.518 af

Link SP2: Inflow=2.69 cfs 0.218 af
Primary=2.69 cfs 0.218 af

Link SP3: Inflow=1.84 cfs 0.876 af
Primary=1.84 cfs 0.876 af

Link SP4: Inflow=75.31 cfs 9.768 af
Primary=75.31 cfs 9.768 af

Link SP5: Inflow=4.27 cfs 0.387 af
Primary=4.27 cfs 0.387 af

Link SP6: Inflow=83.33 cfs 12.487 af
Primary=83.33 cfs 12.487 af

Link SP7: Inflow=2.45 cfs 0.149 af
Primary=2.45 cfs 0.149 af

Link SP8: Inflow=1.13 cfs 0.066 af
Primary=1.13 cfs 0.066 af

Link SP9: Inflow=0.51 cfs 0.029 af
Primary=0.51 cfs 0.029 af

Total Runoff Area = 515.814 ac Runoff Volume = 82.789 af Average Runoff Depth = 1.93"
93.10% Pervious = 480.225 ac 6.90% Impervious = 35.589 ac

Summary for Subcatchment 1: WS 1

Runoff = 4.10 cfs @ 12.53 hrs, Volume= 0.585 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.019	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.414	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.134	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.567	77	Weighted Average
3.548		99.47% Pervious Area
0.019		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	37	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.8	102	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
36.2	150	0.0700	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.0	133	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00' n= 0.050
0.8	505	0.0600	10.43	458.93	**Trap/Vee/Rect Channel Flow,** Bot.W=20.00' D=2.00' Z= 1.0 '/' Top.W=24.00'

n= 0.050

51.7	1,065	Total

Summary for Subcatchment 1-1: WS 1-1

Runoff = 3.25 cfs @ 12.22 hrs, Volume= 0.298 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.863	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.472	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.479	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.814	77	Weighted Average
1.814		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	105	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	60	0.4700	1.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.3	328	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
27.3	593	Total			

Summary for Subcatchment 1-2: WS 1-2

Runoff = 6.64 cfs @ 12.04 hrs, Volume= 0.389 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.685	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.351	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.002	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.130	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.114	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.282	78	Weighted Average
2.280		99.91% Pervious Area
0.002		0.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	194	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	53	0.4900	1.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	327	0.1000	13.40	563.00	**Trap/Vee/Rect Channel Flow,** Bot.W=19.00' D=2.00' Z= 1.0 '/' Top.W=23.00' n= 0.050
12.0	674	Total			

Summary for Subcatchment 1-3: WS 1-3

Runoff = 13.93 cfs @ 12.26 hrs, Volume= 1.370 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.319	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.938	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
4.092	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
8.349	77	Weighted Average
8.349		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
3.4	596	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.1	585	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.5	1,281	Total			

Summary for Subcatchment 1-4: WS 1-4

Runoff = 37.90 cfs @ 12.27 hrs, Volume= 3.836 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.284	70	Existing Woods, Good, HSG C
8.316	77	Existing Woods, Good, HSG D
0.588	70	Proposed Woods, Good, HSG C
1.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.088	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.085	71	Proposed meadow, ski trail, HSG C
6.341	78	Proposed meadow, ski trail, HSG D
0.360	71	Proposed meadow, ski lift, HSG C
2.079	78	Proposed meadow, ski lift, HSG D
24.316	76	Weighted Average
24.228		99.64% Pervious Area
0.088		0.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	51	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
4.8	294	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	760	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	482	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	447	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	637	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	138	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
31.6	2,809	Total			

Summary for Subcatchment 1-5: WS 1-5

Runoff = 51.64 cfs @ 12.67 hrs, Volume= 8.518 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.002	98	Untreated existing impervious, HSG C
0.341	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
4.136	71	Existing meadow, non-grazed, HSG C
6.492	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
23.027	70	Existing Woods, Good, HSG C
11.528	77	Existing Woods, Good, HSG D
2.098	70	Proposed Woods, Good, HSG C
0.523	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.131	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.542	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
7.617	71	Proposed meadow, ski trail, HSG C
4.678	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.115	73	Weighted Average
60.641		99.22% Pervious Area
0.474		0.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.8	237	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.2	276	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	148	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.9	402	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	396	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	373	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	334	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.7	331	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	341	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	396	0.2200	15.35	153.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	367	0.2300	15.69	156.92	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	394	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	361	0.1800	13.88	138.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.3	252	0.1500	12.67	126.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	333	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.5	440	0.1900	14.26	142.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.6	459	0.1600	13.09	130.88	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
0.4	334	0.1700	13.49	134.91	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
61.0	6,226	Total			

Summary for Subcatchment 1-6: WS 1-6

Runoff = 5.87 cfs @ 11.91 hrs, Volume= 0.257 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.022	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.175	98	Proposed impervious to be treated, HSG C
0.342	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.330	71	Proposed developed meadow to be treated, HSG C
0.334	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.209	84	Weighted Average
0.692		57.24% Pervious Area
0.517		42.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	33	0.0300	1.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	51	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.6	325	0.1000	9.32	7.32	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
1.5	409	Total			

Summary for Subcatchment 1-7: WS 1-7

Runoff = 35.58 cfs @ 12.43 hrs, Volume= 4.529 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
10.166	70	Existing Woods, Good, HSG C
8.946	77	Existing Woods, Good, HSG D
1.118	70	Proposed Woods, Good, HSG C
1.643	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.068	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.838	71	Proposed meadow, ski trail, HSG C
5.370	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
31.149	74	Weighted Average
31.081		99.78% Pervious Area
0.068		0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	100	0.2700	0.29		**Sheet Flow,** n= 0.240 P2= 2.40"
1.0	229	0.2700	3.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.5	216	0.3200	1.41		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.1	483	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	251	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	311	0.2300	3.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.1	863	0.2500	3.50		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	956	0.2100	7.19	21.56	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.1	413	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.8	509	0.1500	10.18	91.58	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
43.2	4,331	Total			

Summary for Subcatchment 1-8: WS 1-8

Runoff = 66.16 cfs @ 12.54 hrs, Volume= 9.606 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.004	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.012	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
9.906	70	Existing Woods, Good, HSG C
17.781	77	Existing Woods, Good, HSG D
2.274	70	Proposed Woods, Good, HSG C
3.491	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.042	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
8.051	71	Proposed meadow, ski trail, HSG C
18.519	78	Proposed meadow, ski trail, HSG D
2.211	71	Proposed meadow, ski lift, HSG C
1.103	78	Proposed meadow, ski lift, HSG D
63.400	75	Weighted Average
63.354		99.93% Pervious Area
0.046		0.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	100	0.2900	0.29		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.1	249	0.2900	3.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	274	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	353	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.6	277	0.2500	7.84	23.52	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
5.7	374	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.8	462	0.2800	1.32		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	579	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	294	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.3	639	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	363	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
1.3	806	0.1600	10.18	71.29	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.00' Z= 1.0 '/' Top.W=8.00' n= 0.050
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
52.2	4,770	Total			

Summary for Subcatchment 1A: WS 1A

Runoff = 5.36 cfs @ 12.23 hrs, Volume= 0.505 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
3.076	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.076	77	Weighted Average
3.076		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	31	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.2	191	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	59	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	193	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	161	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.2	107	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	79	0.0500	9.26	314.98	**Trap/Vee/Rect Channel Flow,** Bot.W=15.00' D=2.00' Z= 1.0 '/' Top.W=19.00' n= 0.050
28.5	821	Total			

Summary for Subcatchment 1B: WS 1B

Runoff = 17.11 cfs @ 12.09 hrs, Volume= 1.166 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.425	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.072	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
5.568	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.084	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.429	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.578	79	Weighted Average
6.069		92.26% Pervious Area
0.509		7.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.7	336	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.7	339	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	336	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	278	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	283	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.3	118	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.4	164	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	83	0.1400	9.87	29.62	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.3	505	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
16.6	2,480	Total			

Summary for Subcatchment 1B1: WS 1B1 - Lot G

Runoff = 11.26 cfs @ 11.92 hrs, Volume= 0.506 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.007	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.765	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.438	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.030	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.385	84	Weighted Average
1.620		67.92% Pervious Area
0.765		32.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.5	81	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	304	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.2	485	Total			

Summary for Subcatchment 1C: WS 1C

Runoff = 5.82 cfs @ 12.17 hrs, Volume= 0.477 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.334	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.260	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.053	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.261	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.908	77	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0600	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	122	0.0600	1.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	46	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	221	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	154	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	283	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
2.0	88	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.9	1,014	Total			

Summary for Subcatchment 1C1: WS 1C1

Runoff = 42.21 cfs @ 12.11 hrs, Volume= 3.078 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
3.283	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
3.459	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.788	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.702	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.998	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
15.551	82	Weighted Average
12.268		78.89% Pervious Area
3.283		21.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	48	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.5	172	0.1500	6.24		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.7	164	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	77	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	157	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.9	350	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	219	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.5	251	0.0900	7.92	23.75	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	316	0.0600	6.46	19.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.1	73	0.1900	11.50	34.51	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.7	300	0.0700	6.98	20.95	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
0.8	179	0.0200	3.73	11.20	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.0	342	0.0500	5.90	17.70	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
18.9	2,648	Total			

Summary for Subcatchment 1C2: WS 1C2- Ex lot E

Runoff = 29.63 cfs @ 11.96 hrs, Volume= 1.438 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
3.136	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.703	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.869	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.211	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.919	88	Weighted Average
2.783		47.02% Pervious Area
3.136		52.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0500	1.72		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.4	90	0.0500	3.60		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	114	0.3900	1.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	356	0.0300	4.57	13.71	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041
1.2	195	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.1	31	0.3900	10.05		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
5.2	886	Total			

Summary for Subcatchment 1D: WS 1D- Ex Timbers

Runoff = 66.43 cfs @ 12.55 hrs, Volume= 9.726 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
4.355	98	Untreated existing impervious, HSG C
1.531	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
13.379	71	Existing meadow, non-grazed, HSG C
10.031	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
16.365	70	Existing Woods, Good, HSG C
13.468	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.473	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.199	98	Untreated proposed impervious, HSG D
0.067	71	Proposed developed meadow, non-grazed, HSG C
1.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.717	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
61.650	76	Weighted Average
55.557		90.12% Pervious Area
6.093		9.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	60	0.2300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.8	130	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	182	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	394	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	298	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	183	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	230	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	254	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	159	0.1300	9.31	130.40	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.3	160	0.1100	8.57	119.95	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
2.2	165	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	245	0.2600	1.27		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	192	0.1000	8.17	114.37	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.069 Riprap, 6-inch
0.1	231	0.1300	29.21	408.97	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.022
4.5	280	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	134	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.6	334	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	168	0.0800	16.81	235.27	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
1.1	398	0.0100	5.94	83.18	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.5	334	0.0400	11.88	166.36	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00' n= 0.030 Stream, clean & straight
0.2	176	0.1900	15.54	217.55	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=2.00' Z= 1.0 '/' Top.W=9.00'

n= 0.050 Mountain streams w/large boulders

53.2 4,707 Total

Summary for Subcatchment 1D1: WS 1D1

Runoff = 31.13 cfs @ 11.93 hrs, Volume= 1.339 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.085	98	Untreated existing impervious, HSG C
0.067	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.162	71	Existing meadow, non-grazed, HSG C
0.056	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.786	70	Existing Woods, Good, HSG C
0.665	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
1.703	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.200	71	Proposed developed meadow, non-grazed, HSG C
0.811	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.003	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
7.555	79	Weighted Average
5.683		75.22% Pervious Area
1.872		24.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.0	19	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	69	0.0600	3.67		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	427	0.1200	13.38	23.65	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
0.2	316	0.1900	31.50	125.99	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.016 Asphalt, rough
0.1	118	0.2400	22.93	72.04	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.020 Corrugated PE, corrugated interior
0.6	372	0.1500	10.92	43.69	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.041 Riprap, 2-inch
2.4	1,421	Total			

Summary for Subcatchment 1D2: WS 1D2

Runoff = 10.31 cfs @ 12.06 hrs, Volume= 0.643 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.065	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.137	70	Existing Woods, Good, HSG C
0.049	77	Existing Woods, Good, HSG D
0.375	70	Proposed Woods, Good, HSG C
0.139	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.072	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
2.422	71	Proposed meadow, ski trail, HSG C
0.552	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.819	72	Weighted Average
4.811		99.83% Pervious Area
0.008		0.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
6.2	1,123	0.1890	3.04		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	1,223	Total			

Summary for Subcatchment 1D3: WS 1D3

Runoff = 7.71 cfs @ 11.99 hrs, Volume= 0.381 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.223	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.937	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.995	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.106	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.363	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.624	74	Weighted Average
2.295		87.46% Pervious Area
0.329		12.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	93	0.0500	1.69		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.5	259	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	220	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.8	70	0.3100	1.39		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	89	0.1100	5.20	15.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
7.2	731	Total			

Summary for Subcatchment 1D4: WS 1D4

Runoff = 6.79 cfs @ 11.98 hrs, Volume= 0.327 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.110	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.330	71	Existing meadow, non-grazed, HSG C
0.074	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.870	70	Existing Woods, Good, HSG C
0.224	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.117	98	Untreated proposed impervious, HSG C
0.063	98	Untreated proposed impervious, HSG D
0.185	71	Proposed developed meadow, non-grazed, HSG C
0.061	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.071	76	Weighted Average
1.744		84.21% Pervious Area
0.327		15.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
4.3	603	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	603	0.1300	8.26	99.08	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	1,306	Total			

Summary for Subcatchment 1D5: Untreated from Timbers (1D5)

Runoff = 10.49 cfs @ 11.93 hrs, Volume= 0.454 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.044	70	Existing Woods, Good, HSG C
0.402	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.017	98	Untreated proposed impervious, HSG C
0.390	98	Untreated proposed impervious, HSG D
0.199	71	Proposed developed meadow, non-grazed, HSG C
1.200	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.186	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.466	80	Weighted Average
2.059		83.50% Pervious Area
0.407		16.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	87	0.0700	1.91		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.3	105	0.1700	6.18		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.7	732	0.1000	7.24	86.90	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
2.8	924	Total			

Summary for Subcatchment 1D6: WS 1D6

Runoff = 8.36 cfs @ 11.96 hrs, Volume= 0.402 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.103	98	Proposed impervious to be treated, HSG C
0.537	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.127	71	Proposed developed meadow to be treated, HSG C
1.062	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.829	85	Weighted Average
1.189		65.01% Pervious Area
0.640		34.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	66	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	89	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	310	0.0600	11.11	8.73	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
5.4	465	Total			

Summary for Subcatchment 1D7: WS 1D7

Runoff = 13.69 cfs @ 12.41 hrs, Volume= 1.714 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.084	71	Existing meadow, non-grazed, HSG C
3.608	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.198	70	Existing Woods, Good, HSG C
1.644	77	Existing Woods, Good, HSG D
0.169	70	Proposed Woods, Good, HSG C
0.253	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.008	98	Untreated proposed impervious, HSG C
0.036	98	Untreated proposed impervious, HSG D
0.091	71	Proposed developed meadow, non-grazed, HSG C
0.164	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.288	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.787	74	Weighted Average
11.743		99.63% Pervious Area
0.044		0.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	89	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.4	228	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.0	185	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	217	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	273	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	293	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	264	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	251	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.5	300	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	194	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	138	0.2200	10.15	30.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
42.2	2,532	Total			

Summary for Subcatchment 2: WS 2

Runoff = 2.69 cfs @ 12.16 hrs, Volume= 0.218 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.070	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.145	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.048	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.012	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.275	78	Weighted Average
1.205		94.51% Pervious Area
0.070		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	35	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
5.7	242	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	176	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	129	0.0500	1.10	3.30	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.220
22.5	582	Total			

Summary for Subcatchment 2A: WS 2A

Runoff = 10.91 cfs @ 11.93 hrs, Volume= 0.490 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.010	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.002	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.910	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.162	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.084	87	Weighted Average
1.164		55.85% Pervious Area
0.920		44.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.6	457	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.8	557	Total			

Summary for Subcatchment 3: WS 3

Runoff = 0.54 cfs @ 12.06 hrs, Volume= 0.034 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.032	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.103	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.172	82	Weighted Average
0.135		78.49% Pervious Area
0.037		21.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.4	115	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.2	189	Total			

Summary for Subcatchment 3A: WS 3A

Runoff = 3.67 cfs @ 12.24 hrs, Volume= 0.352 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.824	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.161	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.048	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.040	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.411	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.480	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.985	79	Weighted Average
1.876		94.51% Pervious Area
0.109		5.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	53	0.1800	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.1	136	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	241	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	18	0.4400	1.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	159	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.7	160	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.4	161	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
29.5	928	Total			

Summary for Subcatchment 4: WS 4

Runoff = 11.72 cfs @ 12.05 hrs, Volume= 0.716 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.009	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.993	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.257	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.104	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.363	77	Weighted Average
4.354		99.79% Pervious Area
0.009		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.1	269	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	100	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	436	0.1100	24.47	2,741.07	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=8.00' Z= 1.0 '/' Top.W=22.00' n= 0.050 Mountain streams w/large boulders
13.2	905	Total			

Summary for Subcatchment 4A: WS 4A

Runoff = 55.66 cfs @ 12.04 hrs, Volume= 3.282 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.200	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.739	71	Existing meadow, non-grazed, HSG C
0.785	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.883	70	Existing Woods, Good, HSG C
9.946	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
2.111	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.321	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
3.715	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
20.801	76	Weighted Average
20.500		98.55% Pervious Area
0.301		1.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	100	0.1900	0.25		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	180	0.1900	3.05		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	2,562	0.1550	9.80	58.80	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
12.1	2,842	Total			

Summary for Subcatchment 4B: WS 4B

Runoff = 16.29 cfs @ 12.06 hrs, Volume= 1.004 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.813	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.603	70	Existing Woods, Good, HSG C
3.488	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
1.104	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.065	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.286	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.006	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.365	76	Weighted Average
6.300		98.98% Pervious Area
0.065		1.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	38	0.0500	1.42		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	20	0.4000	4.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.9	270	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	168	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
0.4	218	0.1100	10.32	61.91	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.040 Mountain streams
4.4	217	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.9	211	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
13.4	1,142	Total			

Summary for Subcatchment 4C: WS 4C

Runoff = 33.27 cfs @ 12.36 hrs, Volume= 3.871 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.029	71	Existing meadow, non-grazed, HSG C
1.907	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
3.687	70	Existing Woods, Good, HSG C
5.408	77	Existing Woods, Good, HSG D
1.340	70	Proposed Woods, Good, HSG C
2.614	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.039	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.885	71	Proposed developed meadow, non-grazed, HSG C
1.161	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.924	71	Proposed meadow, ski trail, HSG C
4.557	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
25.551	75	Weighted Average
25.512		99.85% Pervious Area
0.039		0.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	37	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.0	270	0.3700	1.52		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	431	0.3200	3.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	157	0.3800	1.54		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	702	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.5	262	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	740	0.2200	7.36	22.07	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
3.5	248	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.6	347	0.1600	9.96	59.74	**Trap/Vee/Rect Channel Flow,** Bot.W=5.00' D=1.00' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
38.4	3,294	Total			

Summary for Subcatchment 5: WS 5

Runoff = 4.27 cfs @ 12.21 hrs, Volume= 0.387 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.012	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.790	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.133	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.420	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.355	77	Weighted Average
2.343		99.49% Pervious Area
0.012		0.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.0	89	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	240	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
8.1	345	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.4	87	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	88	0.1400	13.49	40.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.030 Stream, clean & straight
26.8	887	Total			

Summary for Subcatchment 6: WS 6

Runoff = 15.71 cfs @ 12.08 hrs, Volume= 1.027 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
4.020	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.108	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.595	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
1.493	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
6.257	77	Weighted Average
6.216		99.34% Pervious Area
0.041		0.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	93	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	201	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	261	0.1500	8.96	35.82	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.5	182	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050
0.8	241	0.0500	5.17	20.68	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
2.8	119	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	71	0.0600	5.30	15.90	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050
15.1	1,268	Total			

Summary for Subcatchment 6A: WS 6A

Runoff = 21.51 cfs @ 12.20 hrs, Volume= 1.894 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.089	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.276	71	Existing meadow, non-grazed, HSG C
0.174	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.354	70	Existing Woods, Good, HSG C
3.771	77	Existing Woods, Good, HSG D
0.560	70	Proposed Woods, Good, HSG C
0.935	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.108	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.241	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
1.571	71	Proposed meadow, ski trail, HSG C
2.925	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
12.004	76	Weighted Average
11.807		98.36% Pervious Area
0.197		1.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	73	0.3400	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.7	149	0.3400	1.46		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	142	0.0800	7.46	22.39	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.041 Riprap, 2-inch
0.6	62	0.5500	1.85		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.1	1,603	0.1370	12.71	152.58	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=2.00' Z= 1.0 '/' Top.W=8.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.5	2,029	Total			

Summary for Subcatchment 6B: WS 6B

Runoff = 6.91 cfs @ 12.07 hrs, Volume= 0.447 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.744	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.972	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.006	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.722	77	Weighted Average
2.722		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	62	0.2500	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	47	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	340	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
14.8	449	Total			

Summary for Subcatchment 6C: WS 6C

Runoff = 3.91 cfs @ 12.27 hrs, Volume= 0.392 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.299	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.289	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.178	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.621	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.387	77	Weighted Average
2.387		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	29	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.7	87	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.1	281	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.7	96	0.0300	0.43		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
31.4	593	Total			

Summary for Subcatchment 7: WS 7

Runoff = 2.45 cfs @ 12.05 hrs, Volume= 0.149 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.056	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.774	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.042	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.872	78	Weighted Average
0.816		93.58% Pervious Area
0.056		6.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	43	0.1200	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	92	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	253	0.0500	16.63	166.28	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
0.1	130	0.0800	21.03	210.33	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=2.00' Z= 1.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
13.0	518	Total			

Summary for Subcatchment 7A: WS 7A

Runoff = 14.91 cfs @ 11.93 hrs, Volume= 0.664 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.099	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.331	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.071	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.420	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.921	86	Weighted Average
1.751		59.95% Pervious Area
1.170		40.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0200	1.19		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	33	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	37	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	86	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	190	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.4	446	Total			

Summary for Subcatchment 7B: WS 7B

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.151 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.040	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.084	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.066	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.696	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.886	78	Weighted Average
0.886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	51	0.1700	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	57	0.1700	2.89		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	146	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	13	0.4600	4.75		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	67	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.9	334	Total			

Summary for Subcatchment 7C: WS 7C

Runoff = 10.98 cfs @ 12.11 hrs, Volume= 0.795 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.488	70	Existing Woods, Good, HSG C
2.656	77	Existing Woods, Good, HSG D
0.242	70	Proposed Woods, Good, HSG C
0.547	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.074	71	Proposed developed meadow, non-grazed, HSG C
0.192	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.006	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.244	75	Weighted Average
5.205		99.26% Pervious Area
0.039		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	42	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.1	155	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	161	0.2000	1.12		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	107	0.0400	4.58	54.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
0.5	407	0.1600	12.66	142.37	**Trap/Vee/Rect Channel Flow,** Bot.W=6.00' D=1.50' Z= 1.0 '/' Top.W=9.00' n= 0.050 Mountain streams w/large boulders
1.0	57	0.1400	0.94		**Shallow Concentrated Flow,**

Forest w/Heavy Litter Kv= 2.5 fps		
18.3	929	Total

Summary for Subcatchment 7D: WS 7D

Runoff = 4.56 cfs @ 12.06 hrs, Volume= 0.288 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.662	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.493	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.107	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.362	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.624	79	Weighted Average
1.517		93.41% Pervious Area
0.107		6.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
3.2	419	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	76	0.0500	15.55	124.41	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
14.2	535	Total			

Summary for Subcatchment 7F: WS 7F

Runoff = 5.65 cfs @ 12.05 hrs, Volume= 0.345 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.051	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.495	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.003	98	Untreated proposed impervious, HSG C
0.101	98	Untreated proposed impervious, HSG D
0.001	71	Proposed developed meadow, non-grazed, HSG C
0.369	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.020	78	Weighted Average
1.916		94.85% Pervious Area
0.104		5.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	74	0.3500	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.2	193	0.3500	1.48		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	176	0.2700	13.65	122.86	**Trap/Vee/Rect Channel Flow,** Bot.W=8.00' D=1.00' Z= 1.0 '/' Top.W=10.00' n= 0.050 Mountain streams w/large boulders
13.2	443	Total			

Summary for Subcatchment 7G: WS 7G

Runoff = 4.32 cfs @ 12.33 hrs, Volume= 0.479 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.403	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.303	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.134	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.240	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.186	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.003	78	Proposed developed meadow to be treated, HSG D
0.046	71	Proposed meadow, ski trail, HSG C
0.382	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.700	79	Weighted Average
2.460		91.11% Pervious Area
0.240		8.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	52	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.6	327	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	181	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.2	266	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
36.7	926	Total			

Summary for Subcatchment 7H: WS 7H

Runoff = 5.14 cfs @ 11.99 hrs, Volume= 0.259 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.217	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.348	70	Existing Woods, Good, HSG C
0.348	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.028	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.100	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.350	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.002	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.781	74	Weighted Average
1.681		94.39% Pervious Area
0.100		5.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	100	0.0600	1.85		**Sheet Flow,** n= 0.011 P2= 2.40"
0.5	18	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	31	0.4800	1.73		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	196	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	158	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	56	0.0900	6.49	19.48	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

7.7	559	Total

Summary for Subcatchment 8: WS 8

Runoff = 1.13 cfs @ 12.03 hrs, Volume= 0.066 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.066	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.277	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.001	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.344	81	Weighted Average
0.278		80.81% Pervious Area
0.066		19.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	40	0.1000	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	11	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	276	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	327	Total			

Summary for Subcatchment 9: WS 9

Runoff = 0.51 cfs @ 12.03 hrs, Volume= 0.029 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.036	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.101	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.011	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.148	82	Weighted Average
0.112		75.68% Pervious Area
0.036		24.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	38	0.0900	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.2	173	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.1	211	Total			

Summary for Subcatchment 10: WS 10

Runoff = 4.18 cfs @ 11.99 hrs, Volume= 0.210 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.332	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.175	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.208	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.513	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.228	78	Weighted Average
1.228		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	38	0.0900	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	84	0.0900	2.10		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	106	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.6	307	Total			

Summary for Subcatchment 10A: WS 10A

Runoff = 6.39 cfs @ 12.14 hrs, Volume= 0.497 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.003	70	Proposed Woods, Good, HSG C
0.037	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.184	98	Untreated proposed impervious, HSG D
0.194	71	Proposed developed meadow, non-grazed, HSG C
1.430	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.172	71	Proposed meadow, ski trail, HSG C
0.891	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.911	78	Weighted Average
2.727		93.68% Pervious Area
0.184		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	100	0.2200	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.9	122	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.0	154	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	204	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
21.0	580	Total			

Summary for Subcatchment 10B: WS 10B

Runoff = 8.14 cfs @ 12.06 hrs, Volume= 0.508 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.056	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.721	70	Existing Woods, Good, HSG C
0.184	77	Existing Woods, Good, HSG D
0.941	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.296	71	Proposed developed meadow, non-grazed, HSG C
0.558	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
1.043	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.805	72	Weighted Average
3.801		99.89% Pervious Area
0.004		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	47	0.1400	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.9	50	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	55	0.5200	1.80		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.2	533	0.1200	7.50	22.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050 Mountain streams w/large boulders
13.4	685	Total			

Summary for Subcatchment 11: WS 11

Runoff = 5.18 cfs @ 12.16 hrs, Volume= 0.416 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.051	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.928	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.259	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.566	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.636	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.440	78	Weighted Average
2.389		97.91% Pervious Area
0.051		2.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.0	130	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	29	0.4100	1.60		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	105	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	216	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
22.3	580	Total			

Summary for Subcatchment 11A: WS 11A

Runoff = 14.96 cfs @ 11.93 hrs, Volume= 0.697 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
1.700	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.906	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.606	91	Weighted Average
0.906		34.77% Pervious Area
1.700		65.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	21	0.1000	1.66		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	70	0.3700	9.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.9	249	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.9	440	Total			

Summary for Subcatchment 11B: WS 11B

Runoff = 10.02 cfs @ 11.97 hrs, Volume= 0.492 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.772	98	Proposed impervious to be treated, HSG C
0.167	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.233	71	Proposed developed meadow to be treated, HSG C
0.316	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.488	82	Weighted Average
1.549		62.26% Pervious Area
0.939		37.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.4400	0.35		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	36	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	246	0.0200	3.24	38.86	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.069 Riprap, 6-inch
6.2	382	Total			

Summary for Subcatchment 12: WS 12

Runoff = 8.76 cfs @ 12.05 hrs, Volume= 0.521 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.035	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
1.747	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.280	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.243	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.747	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.052	78	Weighted Average
3.017		98.85% Pervious Area
0.035		1.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.5	174	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	17	0.3500	4.14		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	204	0.1700	9.95	49.77	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.050
1.0	245	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
12.4	740	Total			

Summary for Subcatchment 12A: WS 12A

Runoff = 5.54 cfs @ 11.93 hrs, Volume= 0.238 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.777	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.012	98	Untreated proposed impervious, HSG C
0.025	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.576	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.392	78	Weighted Average
1.355		97.34% Pervious Area
0.037		2.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	33	0.0600	1.48		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
1.4	87	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	254	0.1800	12.62	104.09	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.50' Z= 1.0 '/' Top.W=7.00' n= 0.050 Mountain streams w/large boulders
2.2	374	Total			

Summary for Subcatchment 12B: WS 12B

Runoff = 3.06 cfs @ 12.18 hrs, Volume= 0.263 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.082	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.046	98	Untreated proposed impervious, HSG C
0.004	98	Untreated proposed impervious, HSG D
0.995	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.846	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.973	72	Weighted Average
1.923		97.47% Pervious Area
0.050		2.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	304	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	307	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	90	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
23.8	801	Total			

Summary for Subcatchment 12C: WS 12C

Runoff = 2.22 cfs @ 12.05 hrs, Volume= 0.136 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.044	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.492	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.372	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.208	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.116	70	Weighted Average
1.116		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.6	115	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	302	0.1400	19.66	78.65	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
12.7	476	Total			

Summary for Subcatchment 12D: WS 12D

Runoff = 6.00 cfs @ 12.05 hrs, Volume= 0.368 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.024	71	Existing meadow, non-grazed, HSG C
0.014	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.122	70	Existing Woods, Good, HSG C
0.558	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.432	98	Proposed impervious to be treated, HSG C
0.002	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.523	71	Proposed developed meadow to be treated, HSG C
0.323	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.998	80	Weighted Average
1.564		78.28% Pervious Area
0.434		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.4	82	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	171	0.3000	3.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	379	0.1200	24.09	192.74	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
13.3	681	Total			

Summary for Subcatchment 12E: WS 12E

Runoff = 3.06 cfs @ 12.04 hrs, Volume= 0.180 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.042	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.033	70	Existing Woods, Good, HSG C
0.921	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.020	71	Proposed developed meadow, non-grazed, HSG C
0.057	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.094	77	Weighted Average
1.094		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	71	0.3300	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.2	101	0.3300	1.44		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	130	0.1500	26.94	215.49	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
12.0	302	Total			

Summary for Subcatchment 12F: WS 12F

Runoff = 4.17 cfs @ 12.18 hrs, Volume= 0.354 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.346	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.593	77	Existing Woods, Good, HSG D
0.159	70	Proposed Woods, Good, HSG C
0.120	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.223	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.377	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.257	71	Proposed meadow, ski trail, HSG C
0.001	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.076	78	Weighted Average
1.853		89.26% Pervious Area
0.223		10.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	31	0.6500	5.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	129	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.3	130	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.8	195	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	334	0.0700	6.12	24.47	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.050 Mountain streams w/large boulders
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
24.3	919	Total			

Summary for Subcatchment 12G: WS 12G

Runoff = 6.16 cfs @ 12.26 hrs, Volume= 0.610 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.007	71	Existing meadow, non-grazed, HSG C
0.073	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.090	70	Existing Woods, Good, HSG C
0.912	77	Existing Woods, Good, HSG D
0.662	70	Proposed Woods, Good, HSG C
0.331	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.148	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.205	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.949	71	Proposed meadow, ski trail, HSG C
0.650	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.029	75	Weighted Average
3.881		96.33% Pervious Area
0.148		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	100	0.1800	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	127	0.1800	2.97		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	83	0.5300	1.82		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
6.1	305	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	182	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	262	0.0300	2.90	11.61	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
0.2	83	0.1200	5.80	23.22	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
30.4	1,142	Total			

Summary for Subcatchment 13: WS 13

Runoff = 1.15 cfs @ 12.03 hrs, Volume= 0.067 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.074	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.118	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.146	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.338	82	Weighted Average
0.264		78.11% Pervious Area
0.074		21.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	36	0.1100	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.9	254	0.0200	2.22	6.65	**Trap/Vee/Rect Channel Flow, ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
11.5	290	Total			

Summary for Subcatchment 15H: WS 15H

Runoff = 17.90 cfs @ 12.51 hrs, Volume= 2.527 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.864	71	Existing meadow, non-grazed, HSG C
0.081	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
4.191	70	Existing Woods, Good, HSG C
2.039	77	Existing Woods, Good, HSG D
2.433	70	Proposed Woods, Good, HSG C
0.330	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.140	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
5.213	71	Proposed developed meadow, non-grazed, HSG C
0.038	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
3.193	71	Proposed meadow, ski trail, HSG C
0.407	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
18.929	72	Weighted Average
18.789		99.26% Pervious Area
0.140		0.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.6	358	0.2800	3.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.3	1,352	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.1	765	0.2000	3.13		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.9	612	0.2700	1.30		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	209	0.2500	26.28	105.11	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
48.8	3,396	Total			

Summary for Subcatchment 64S: WS 13A

Runoff = 7.46 cfs @ 12.07 hrs, Volume= 0.486 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.353	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.301	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
1.695	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.500	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.849	78	Weighted Average
2.849		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.4	211	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	301	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
15.1	612	Total			

Summary for Subcatchment 65S: WS 13B

Runoff = 7.26 cfs @ 11.91 hrs, Volume= 0.313 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.086	70	Existing Woods, Good, HSG C
0.116	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.379	98	Proposed impervious to be treated, HSG C
0.145	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.383	71	Proposed developed meadow to be treated, HSG C
0.416	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.525	83	Weighted Average
1.001		65.64% Pervious Area
0.524		34.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0700	1.97		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.0700	5.37		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	88	0.1600	28.80	90.49	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.3	118	0.2000	7.01	21.04	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.3	331	Total			

Summary for Subcatchment 66S: WS 13C

Runoff = 8.92 cfs @ 12.00 hrs, Volume= 0.471 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.900	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.569	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.469	81	Weighted Average
1.569		63.55% Pervious Area
0.900		36.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	100	0.1300	0.21		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.3	42	0.1300	2.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.4	170	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.4	97	0.3100	3.90		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.9	409	Total			

Summary for Subcatchment R16: R16

Runoff = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17A: R17A

Runoff = 3.93 cfs @ 11.97 hrs, Volume= 0.191 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.270	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.501	71	Proposed developed meadow to be treated, HSG C
0.149	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R17B: R17B

Runoff = 3.93 cfs @ 11.97 hrs, Volume= 0.191 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.341	98	Proposed impervious to be treated, HSG C
0.009	98	Proposed impervious to be treated, HSG D
0.634	71	Proposed developed meadow to be treated, HSG C
0.016	78	Proposed developed meadow to be treated, HSG D
1.000	81	Weighted Average
0.650		65.00% Pervious Area
0.350		35.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R18: R18

Runoff = 3.68 cfs @ 11.97 hrs, Volume= 0.180 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.097	98	Proposed impervious to be treated, HSG C
0.202	98	Proposed impervious to be treated, HSG D
0.178	71	Proposed developed meadow to be treated, HSG C
0.373	78	Proposed developed meadow to be treated, HSG D
0.850	84	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R19: R19

Runoff = 3.45 cfs @ 11.97 hrs, Volume= 0.168 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.219	98	Proposed impervious to be treated, HSG C
0.080	98	Proposed impervious to be treated, HSG D
0.404	71	Proposed developed meadow to be treated, HSG C
0.147	78	Proposed developed meadow to be treated, HSG D
0.850	82	Weighted Average
0.551		64.82% Pervious Area
0.299		35.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R20: R20

Runoff = 3.33 cfs @ 11.97 hrs, Volume= 0.162 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.281	98	Proposed impervious to be treated, HSG C
0.017	98	Proposed impervious to be treated, HSG D
0.519	71	Proposed developed meadow to be treated, HSG C
0.032	78	Proposed developed meadow to be treated, HSG D
0.849	81	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R22: R22

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R23: R23

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R24: R24

Runoff = 3.78 cfs @ 11.97 hrs, Volume= 0.187 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.001	98	Proposed impervious to be treated, HSG C
0.297	98	Proposed impervious to be treated, HSG D
0.002	71	Proposed developed meadow to be treated, HSG C
0.549	78	Proposed developed meadow to be treated, HSG D
0.849	85	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R25: R25

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R26: R26

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R27: R27

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R28: R28

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R29: R29

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R30: R30

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R31: R31

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R32: R32

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R33: R33

Runoff = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R34: R34

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R35: R35

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R36: R36

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R37: R37

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R38: R38

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R39: R39

Runoff = 3.05 cfs @ 11.97 hrs, Volume= 0.150 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.035	98	Proposed impervious to be treated, HSG C
0.195	98	Proposed impervious to be treated, HSG D
0.072	71	Proposed developed meadow to be treated, HSG C
0.403	78	Proposed developed meadow to be treated, HSG D
0.705	84	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R40: R40

Runoff = 2.95 cfs @ 11.97 hrs, Volume= 0.144 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.074	98	Proposed impervious to be treated, HSG C
0.155	98	Proposed impervious to be treated, HSG D
0.153	71	Proposed developed meadow to be treated, HSG C
0.322	78	Proposed developed meadow to be treated, HSG D
0.704	83	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R41: R41

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R42: R42

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R43: R43

Runoff = 2.86 cfs @ 11.97 hrs, Volume= 0.140 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.135	98	Proposed impervious to be treated, HSG C
0.095	98	Proposed impervious to be treated, HSG D
0.279	71	Proposed developed meadow to be treated, HSG C
0.196	78	Proposed developed meadow to be treated, HSG D
0.705	82	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R44: R44

Runoff = 3.04 cfs @ 11.97 hrs, Volume= 0.149 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.042	98	Proposed impervious to be treated, HSG C
0.187	98	Proposed impervious to be treated, HSG D
0.088	71	Proposed developed meadow to be treated, HSG C
0.387	78	Proposed developed meadow to be treated, HSG D
0.704	84	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R45: R45

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.198	98	Proposed impervious to be treated, HSG C
0.031	98	Proposed impervious to be treated, HSG D
0.410	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.704	80	Weighted Average
0.475		67.47% Pervious Area
0.229		32.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R46: R46

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R47: R47

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R48: R48

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R49: R49

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R50: R50

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 17R: stream

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 23.35 cfs @ 12.19 hrs, Volume= 3.000 af
Outflow = 23.28 cfs @ 12.20 hrs, Volume= 3.000 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.15 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.59 fps, Avg. Travel Time= 2.1 min

Peak Storage= 520 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.56' , Surface Width= 5.12'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 62.68 cfs

4.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 204.0' Slope= 0.2696 '/'
Inlet Invert= 1,711.00', Outlet Invert= 1,656.00'

Summary for Reach 19R: stream

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 22.92 cfs @ 12.17 hrs, Volume= 2.762 af
Outflow = 22.66 cfs @ 12.19 hrs, Volume= 2.762 af, Atten= 1%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.18 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.82 fps, Avg. Travel Time= 2.3 min

Peak Storage= 633 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.87' , Surface Width= 3.74'
Bank-Full Depth= 1.50' Flow Area= 5.3 sf, Capacity= 63.50 cfs

2.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 254.0' Slope= 0.2087 '/'
Inlet Invert= 1,770.00', Outlet Invert= 1,717.00'

Summary for Reach 23R: ditch

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 2.16" for 25-Year event
Inflow = 16.66 cfs @ 12.17 hrs, Volume= 1.973 af
Outflow = 16.56 cfs @ 12.21 hrs, Volume= 1.973 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.45 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.29 fps, Avg. Travel Time= 7.1 min

Peak Storage= 1,229 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.62' , Surface Width= 4.24'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 38.44 cfs

3.00' x 1.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 5.00'
Length= 550.0' Slope= 0.1727 '/'
Inlet Invert= 1,945.00', Outlet Invert= 1,850.00'

Summary for Reach 24R: ditch

Inflow Area = 9.146 ac, 15.86% Impervious, Inflow Depth = 2.15" for 25-Year event
Inflow = 14.24 cfs @ 12.18 hrs, Volume= 1.639 af
Outflow = 14.17 cfs @ 12.21 hrs, Volume= 1.639 af, Atten= 1%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.96 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.21 fps, Avg. Travel Time= 5.5 min

Peak Storage= 954 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 5.30'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 163.35 cfs

3.00' x 2.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.2375 '/'
Inlet Invert= 2,015.00', Outlet Invert= 1,920.00'

Summary for Reach 29R: stream

Inflow Area = 70.584 ac, 10.64% Impervious, Inflow Depth > 1.95" for 25-Year event
Inflow = 74.01 cfs @ 12.16 hrs, Volume= 11.461 af
Outflow = 72.75 cfs @ 12.20 hrs, Volume= 11.460 af, Atten= 2%, Lag= 2.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.24 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 7.6 min

Peak Storage= 5,115 cf @ 12.18 hrs
Average Depth at Peak Storage= 1.69' , Surface Width= 6.38'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 100.62 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 645.0' Slope= 0.0946 '/'
Inlet Invert= 1,596.00', Outlet Invert= 1,535.00'

Summary for Reach 32R: dead end stream

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 1.86" for 25-Year event
Inflow = 25.63 cfs @ 12.52 hrs, Volume= 5.397 af
Outflow = 25.54 cfs @ 12.56 hrs, Volume= 5.396 af, Atten= 0%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.31 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 9.5 min

Peak Storage= 2,370 cf @ 12.54 hrs
Average Depth at Peak Storage= 0.81' , Surface Width= 4.62'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 76.81 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 770.0' Slope= 0.1610 '/'
Inlet Invert= 1,760.00', Outlet Invert= 1,636.00'

Summary for Reach 34R: stream

Inflow Area = 29.454 ac, 9.31% Impervious, Inflow Depth = 1.83" for 25-Year event
Inflow = 24.82 cfs @ 12.50 hrs, Volume= 4.498 af
Outflow = 24.76 cfs @ 12.52 hrs, Volume= 4.498 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.01 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 4.1 min

Peak Storage= 1,146 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.81' , Surface Width= 4.62'
Bank-Full Depth= 1.50' Flow Area= 6.8 sf, Capacity= 73.80 cfs

3.00' x 1.50' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 370.0' Slope= 0.1486 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,760.00'

Summary for Reach 35R: flow in wetland

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 1.71" for 25-Year event
Inflow = 20.46 cfs @ 12.46 hrs, Volume= 3.486 af
Outflow = 20.35 cfs @ 12.56 hrs, Volume= 3.486 af, Atten= 1%, Lag= 5.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.90 fps, Min. Travel Time= 3.4 min
Avg. Velocity = 0.45 fps, Avg. Travel Time= 22.2 min

Peak Storage= 4,216 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.56' , Surface Width= 13.12'
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 53.58 cfs

12.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 600.0' Slope= 0.0917 '/'
Inlet Invert= 2,080.00', Outlet Invert= 2,025.00'

‡

Summary for Reach 39R: stream

Inflow Area = 7.320 ac, 16.54% Impervious, Inflow Depth = 2.26" for 25-Year event
Inflow = 11.97 cfs @ 12.08 hrs, Volume= 1.377 af
Outflow = 11.35 cfs @ 12.17 hrs, Volume= 1.377 af, Atten= 5%, Lag= 5.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.91 fps, Min. Travel Time= 3.1 min
Avg. Velocity = 1.14 fps, Avg. Travel Time= 16.0 min

Peak Storage= 2,107 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 4.86'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 161.10 cfs

4.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 8.00'
Length= 1,100.0' Slope= 0.1527 '/'
Inlet Invert= 1,780.00', Outlet Invert= 1,612.00'

Summary for Reach 40R: stream

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 66.71 cfs @ 12.06 hrs, Volume= 9.052 af
Outflow = 64.72 cfs @ 12.11 hrs, Volume= 9.052 af, Atten= 3%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.47 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 9.7 min

Peak Storage= 5,950 cf @ 12.08 hrs
Average Depth at Peak Storage= 1.09' , Surface Width= 8.18'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 186.92 cfs

6.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 10.00'
Length= 770.0' Slope= 0.1013 '/'
Inlet Invert= 1,563.00', Outlet Invert= 1,485.00'

Summary for Reach 42R: stream

Inflow Area = 36.708 ac, 2.54% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 40.00 cfs @ 12.45 hrs, Volume= 5.771 af
Outflow = 39.24 cfs @ 12.58 hrs, Volume= 5.771 af, Atten= 2%, Lag= 7.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.78 fps, Min. Travel Time= 4.6 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 31.2 min

Peak Storage= 10,944 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.78' , Surface Width= 6.55'
Bank-Full Depth= 1.00' Flow Area= 6.0 sf, Capacity= 60.47 cfs

5.00' x 1.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 2,440.0' Slope= 0.1639 '/'
Inlet Invert= 1,973.00', Outlet Invert= 1,573.00'

Summary for Reach 45R: flow in wetland

Inflow Area = 27.251 ac, 2.34% Impervious, Inflow Depth = 1.86" for 25-Year event
Inflow = 34.69 cfs @ 12.35 hrs, Volume= 4.220 af
Outflow = 33.85 cfs @ 12.48 hrs, Volume= 4.220 af, Atten= 2%, Lag= 7.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.57 fps, Min. Travel Time= 4.4 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 31.3 min

Peak Storage= 8,935 cf @ 12.41 hrs
Average Depth at Peak Storage= 0.94' , Surface Width= 9.78'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 37.72 cfs

6.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 1,200.0' Slope= 0.1442 '/'
Inlet Invert= 2,160.00', Outlet Invert= 1,987.00'

‡

Summary for Reach 102R: stream

Inflow Area = 321.776 ac, 5.78% Impervious, Inflow Depth > 1.88" for 25-Year event
Inflow = 285.86 cfs @ 12.53 hrs, Volume= 50.313 af
Outflow = 285.22 cfs @ 12.57 hrs, Volume= 50.312 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.78 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 11.7 min

Peak Storage= 26,005 cf @ 12.55 hrs
Average Depth at Peak Storage= 2.08' , Surface Width= 16.15'
Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 883.89 cfs

12.00' x 4.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 20.00'
Length= 890.0' Slope= 0.0562 '/'
Inlet Invert= 1,480.00', Outlet Invert= 1,430.00'

Summary for Reach 103R: stream

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 1.81" for 25-Year event
Inflow = 126.07 cfs @ 12.47 hrs, Volume= 17.970 af
Outflow = 125.77 cfs @ 12.49 hrs, Volume= 17.970 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.15 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.79 fps, Avg. Travel Time= 1.6 min

Peak Storage= 3,785 cf @ 12.48 hrs
Average Depth at Peak Storage= 1.46' , Surface Width= 10.91'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 440.61 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 275.0' Slope= 0.0800 '/'
Inlet Invert= 1,502.00', Outlet Invert= 1,480.00'

Summary for Reach 104R: stream

Inflow Area = 191.143 ac, 9.36% Impervious, Inflow Depth > 1.90" for 25-Year event
Inflow = 156.79 cfs @ 12.57 hrs, Volume= 30.311 af
Outflow = 156.55 cfs @ 12.59 hrs, Volume= 30.310 af, Atten= 0%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.62 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.49 fps, Avg. Travel Time= 5.5 min

Peak Storage= 7,304 cf @ 12.58 hrs
Average Depth at Peak Storage= 1.55' , Surface Width= 11.09'
Bank-Full Depth= 3.00' Flow Area= 33.0 sf, Capacity= 495.10 cfs

8.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 14.00'
Length= 495.0' Slope= 0.1010 '/'
Inlet Invert= 1,530.00', Outlet Invert= 1,480.00'

Summary for Reach 108R: stream

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 35.58 cfs @ 12.43 hrs, Volume= 4.529 af
Outflow = 34.93 cfs @ 12.56 hrs, Volume= 4.529 af, Atten= 2%, Lag= 7.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.18 fps, Min. Travel Time= 4.6 min
Avg. Velocity = 2.10 fps, Avg. Travel Time= 15.6 min

Peak Storage= 9,599 cf @ 12.48 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 9.14'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 291.19 cfs

8.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,968.0' Slope= 0.1443 '/'
Inlet Invert= 1,810.00', Outlet Invert= 1,526.00'

Summary for Reach 110R: stream

Inflow Area = 157.125 ac, 6.82% Impervious, Inflow Depth = 1.81" for 25-Year event
Inflow = 138.12 cfs @ 12.57 hrs, Volume= 23.756 af
Outflow = 137.67 cfs @ 12.62 hrs, Volume= 23.756 af, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 12.15 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.69 fps, Avg. Travel Time= 11.6 min

Peak Storage= 13,337 cf @ 12.59 hrs
Average Depth at Peak Storage= 1.51' , Surface Width= 9.02'
Bank-Full Depth= 3.00' Flow Area= 27.0 sf, Capacity= 465.00 cfs

6.00' x 3.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 12.00'
Length= 1,175.0' Slope= 0.1464 '/'
Inlet Invert= 1,714.00', Outlet Invert= 1,542.00'

Summary for Reach 111R: upperstream

Inflow Area = 13.616 ac, 5.02% Impervious, Inflow Depth = 1.86" for 25-Year event
Inflow = 14.69 cfs @ 12.40 hrs, Volume= 2.116 af
Outflow = 14.62 cfs @ 12.45 hrs, Volume= 2.116 af, Atten= 1%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.28 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 8.8 min

Peak Storage= 1,381 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.56' , Surface Width= 4.13'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 139.11 cfs

3.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 686.0' Slope= 0.1808 '/'
Inlet Invert= 2,074.00', Outlet Invert= 1,950.00'

Summary for Reach 112R: stream

Inflow Area = 21.986 ac, 10.30% Impervious, Inflow Depth = 1.93" for 25-Year event
Inflow = 25.47 cfs @ 11.96 hrs, Volume= 3.534 af
Outflow = 23.68 cfs @ 12.04 hrs, Volume= 3.534 af, Atten= 7%, Lag= 4.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.63 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 16.4 min

Peak Storage= 3,869 cf @ 11.99 hrs
Average Depth at Peak Storage= 0.57' , Surface Width= 6.13'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 210.11 cfs

5.00' x 2.00' deep channel, n= 0.050 Mountain streams w/large boulders
Side Slope Z-value= 1.0 '/' Top Width= 9.00'
Length= 1,230.0' Slope= 0.1772 '/'
Inlet Invert= 1,950.00', Outlet Invert= 1,732.00'

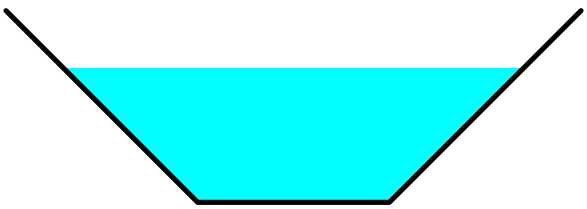
Summary for Reach 113R: ditch

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 23.28 cfs @ 12.20 hrs, Volume= 3.000 af
Outflow = 23.08 cfs @ 12.23 hrs, Volume= 3.000 af, Atten= 1%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.89 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.00 fps, Avg. Travel Time= 4.1 min

Peak Storage= 1,169 cf @ 12.21 hrs
Average Depth at Peak Storage= 1.40' , Surface Width= 4.81'
Bank-Full Depth= 2.00' Flow Area= 8.0 sf, Capacity= 46.73 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 1.0 '/' Top Width= 6.00'
Length= 245.0' Slope= 0.0694 '/'
Inlet Invert= 1,656.00', Outlet Invert= 1,639.00'



Summary for Pond 10P: new 36

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 26.92 cfs @ 12.19 hrs, Volume= 3.520 af
Outflow = 26.92 cfs @ 12.19 hrs, Volume= 3.520 af, Atten= 0%, Lag= 0.0 min
Primary = 26.92 cfs @ 12.19 hrs, Volume= 3.520 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 2.14' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.10' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=26.79 cfs @ 12.19 hrs HW=2.14' (Free Discharge)
1=Culvert (Inlet Controls 26.79 cfs @ 4.98 fps)

Summary for Pond 12P: new 48

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 1.95" for 25-Year event
Inflow = 83.33 cfs @ 12.18 hrs, Volume= 12.487 af
Outflow = 83.33 cfs @ 12.18 hrs, Volume= 12.487 af, Atten= 0%, Lag= 0.0 min
Primary = 83.33 cfs @ 12.18 hrs, Volume= 12.487 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 3.87' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**48.0" Round Culvert** L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0560 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 12.57 sf

Primary OutFlow Max=82.60 cfs @ 12.18 hrs HW=3.83' (Free Discharge)
1=Culvert (Inlet Controls 82.60 cfs @ 6.67 fps)

Summary for Pond 16P: trunk line from condos

Inflow Area = 5.094 ac, 51.81% Impervious, Inflow Depth = 2.80" for 25-Year event
Inflow = 24.33 cfs @ 11.94 hrs, Volume= 1.189 af
Outflow = 24.33 cfs @ 11.94 hrs, Volume= 1.189 af, Atten= 0%, Lag= 0.0 min
Primary = 24.33 cfs @ 11.94 hrs, Volume= 1.189 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,714.95' @ 11.94 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,712.00'	**30.0" Round Culvert** L= 700.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 1,712.00' / 1,694.00' S= 0.0257 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=23.80 cfs @ 11.94 hrs HW=1,714.88' (Free Discharge)
1=Culvert (Inlet Controls 23.80 cfs @ 4.85 fps)

Summary for Pond 18P: Culvert 5 - Trail

Inflow Area = 17.541 ac, 14.01% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 23.35 cfs @ 12.19 hrs, Volume= 3.000 af
Primary = 23.35 cfs @ 12.19 hrs, Volume= 3.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 20P: road culvert

Inflow Area = 16.149 ac, 14.99% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 22.92 cfs @ 12.17 hrs, Volume= 2.762 af
Outflow = 22.92 cfs @ 12.17 hrs, Volume= 2.762 af, Atten= 0%, Lag= 0.0 min
Primary = 22.92 cfs @ 12.17 hrs, Volume= 2.762 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,775.33' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,774.00'	**72.0" Round Culvert w/ 24.0" inside fill** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,772.00' / 1,771.00' S= 0.0200 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 20.02 sf

Primary OutFlow Max=22.66 cfs @ 12.17 hrs HW=1,775.32' (Free Discharge)
1=Culvert (Inlet Controls 22.66 cfs @ 2.90 fps)

Summary for Pond 21P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 2.12" for 25-Year event
Inflow = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af
Outflow = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af, Atten= 0%, Lag= 0.0 min
Primary = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,813.80' @ 12.17 hrs Surf.Area= 0.001 ac Storage= 0.002 af

Plug-Flow detention time= 0.3 min calculated for 2.498 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (1,023.8 - 1,023.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,812.00'	0.016 af	**8.00'D x 14.00'H Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	1,812.00'	**48.0" Round Culvert**

L= 100.0' CMP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 1,812.00' / 1,780.00' S= 0.3200 '/' Cc= 0.900
n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=19.64 cfs @ 12.17 hrs HW=1,813.79' (Free Discharge)
1=Culvert (Inlet Controls 19.64 cfs @ 3.60 fps)

Summary for Pond 22P: Pipe Down Slope

Inflow Area = 14.176 ac, 16.73% Impervious, Inflow Depth = 2.12" for 25-Year event
Inflow = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af
Outflow = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af, Atten= 0%, Lag= 0.0 min
Primary = 19.86 cfs @ 12.17 hrs, Volume= 2.499 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,823.58' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**48.0" Round Culvert**
			L= 100.0' CMP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 1,822.00' / 1,818.00' S= 0.0400 '/' Cc= 0.900
			n= 0.025 Corrugated metal, Flow Area= 12.57 sf

Primary OutFlow Max=19.66 cfs @ 12.17 hrs HW=1,823.58' (Free Discharge)
1=Culvert (Inlet Controls 19.66 cfs @ 4.27 fps)

Summary for Pond 25P: road culvert

Inflow Area = 4.029 ac, 3.67% Impervious, Inflow Depth = 1.82" for 25-Year event
Inflow = 6.16 cfs @ 12.26 hrs, Volume= 0.610 af
Primary = 6.16 cfs @ 12.26 hrs, Volume= 0.610 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 26P: road culvert

Inflow Area = 2.076 ac, 10.74% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 4.17 cfs @ 12.18 hrs, Volume= 0.354 af
Primary = 4.17 cfs @ 12.18 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 28P: road culvert

Inflow Area = 10.945 ac, 15.36% Impervious, Inflow Depth = 2.16" for 25-Year event
Inflow = 16.66 cfs @ 12.17 hrs, Volume= 1.973 af
Primary = 16.66 cfs @ 12.17 hrs, Volume= 1.973 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 30P: Culvert 4 -Trail

Inflow Area = 19.324 ac, 7.29% Impervious, Inflow Depth = 2.03" for 25-Year event
Inflow = 32.61 cfs @ 12.18 hrs, Volume= 3.271 af
Primary = 32.61 cfs @ 12.18 hrs, Volume= 3.271 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 31P: Trail Culvert

Inflow Area = 47.453 ac, 10.39% Impervious, Inflow Depth > 1.87" for 25-Year event
Inflow = 41.19 cfs @ 12.14 hrs, Volume= 7.376 af
Outflow = 41.19 cfs @ 12.14 hrs, Volume= 7.376 af, Atten= 0%, Lag= 0.0 min
Primary = 41.19 cfs @ 12.14 hrs, Volume= 7.376 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,628.32' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,626.00'	**72.0" Round Culvert** L= 300.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,626.00' / 1,610.00' S= 0.0533 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 28.27 sf

Primary OutFlow Max=40.96 cfs @ 12.14 hrs HW=1,628.31' (Free Discharge)
1=Culvert (Inlet Controls 40.96 cfs @ 4.08 fps)

Summary for Pond 33P: Culvert 12 -Road

Inflow Area = 34.881 ac, 10.72% Impervious, Inflow Depth > 1.86" for 25-Year event
Inflow = 25.63 cfs @ 12.52 hrs, Volume= 5.397 af
Primary = 25.63 cfs @ 12.52 hrs, Volume= 5.397 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 36P: trail culvert

Inflow Area = 24.408 ac, 6.29% Impervious, Inflow Depth = 1.71" for 25-Year event
Inflow = 20.46 cfs @ 12.46 hrs, Volume= 3.486 af
Primary = 20.46 cfs @ 12.46 hrs, Volume= 3.486 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 37P: Road E Culvert

Inflow Area = 28.672 ac, 8.44% Impervious, Inflow Depth = 1.81" for 25-Year event
Inflow = 24.44 cfs @ 12.51 hrs, Volume= 4.320 af
Primary = 24.44 cfs @ 12.51 hrs, Volume= 4.320 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 38P: Road A Culvert

Inflow Area = 21.778 ac, 5.23% Impervious, Inflow Depth = 1.69" for 25-Year event
Inflow = 19.46 cfs @ 12.48 hrs, Volume= 3.065 af
Primary = 19.46 cfs @ 12.48 hrs, Volume= 3.065 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 41P: Culvert 3 - Trail 3

Inflow Area = 57.509 ac, 2.14% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 66.71 cfs @ 12.06 hrs, Volume= 9.052 af
Primary = 66.71 cfs @ 12.06 hrs, Volume= 9.052 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 43P: Culvert 11 -Trail 3

Inflow Area = 33.616 ac, 2.09% Impervious, Inflow Depth = 1.86" for 25-Year event
Inflow = 36.65 cfs @ 12.47 hrs, Volume= 5.224 af
Primary = 36.65 cfs @ 12.47 hrs, Volume= 5.224 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 44P: Culvert 13 -Road A

Inflow Area = 26.401 ac, 1.28% Impervious, Inflow Depth = 1.84" for 25-Year event
Inflow = 34.08 cfs @ 12.36 hrs, Volume= 4.052 af
Primary = 34.08 cfs @ 12.36 hrs, Volume= 4.052 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 105P: Culvert 1 - Trail

Inflow Area = 181.025 ac, 7.73% Impervious, Inflow Depth = 1.87" for 25-Year event
Inflow = 152.31 cfs @ 12.58 hrs, Volume= 28.204 af
Primary = 152.31 cfs @ 12.58 hrs, Volume= 28.204 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 106P: Culvert 2- Trail 2

Inflow Area = 118.865 ac, 0.17% Impervious, Inflow Depth = 1.81" for 25-Year event
Inflow = 126.07 cfs @ 12.47 hrs, Volume= 17.970 af
Primary = 126.07 cfs @ 12.47 hrs, Volume= 17.970 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 107P: Culvert 10 -Trail 2

Inflow Area = 31.149 ac, 0.22% Impervious, Inflow Depth = 1.74" for 25-Year event
Inflow = 35.58 cfs @ 12.43 hrs, Volume= 4.529 af
Primary = 35.58 cfs @ 12.43 hrs, Volume= 4.529 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 109P: Culvert 9-Trail Crossing

Inflow Area = 87.920 ac, 3.12% Impervious, Inflow Depth = 1.73" for 25-Year event
Inflow = 68.60 cfs @ 12.61 hrs, Volume= 12.696 af
Primary = 68.60 cfs @ 12.61 hrs, Volume= 12.696 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond P1: Condos Complex Wet Pond

Inflow Area = 11.937 ac, 34.04% Impervious, Inflow Depth = 2.47" for 25-Year event
Inflow = 42.37 cfs @ 11.95 hrs, Volume= 2.459 af
Outflow = 11.62 cfs @ 12.20 hrs, Volume= 2.451 af, Atten= 73%, Lag= 14.9 min
Primary = 7.21 cfs @ 12.20 hrs, Volume= 2.049 af
Secondary = 4.41 cfs @ 12.20 hrs, Volume= 0.402 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,684.00' Surf.Area= 29,057 sf Storage= 54,189 cf
Peak Elev= 1,686.36' @ 12.20 hrs Surf.Area= 39,018 sf Storage= 104,265 cf (50,076 cf above start)

Plug-Flow detention time= 1,543.2 min calculated for 1.207 af (49% of inflow)
Center-of-Mass det. time= 708.0 min (1,523.1 - 815.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,678.00'	54,189 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,684.00'	66,450 cf	**CPv (Irregular)** Listed below (Recalc)
		120,639 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,678.00	4,365	481.7	0	0	4,365
1,679.00	5,839	500.5	5,084	5,084	5,914
1,680.00	7,369	519.4	6,589	11,673	7,531
1,681.00	8,954	538.2	8,149	19,822	9,199
1,682.00	10,598	557.1	9,764	29,586	10,935
1,683.00	12,297	575.9	11,437	41,023	12,722
1,684.00	14,053	594.8	13,165	54,189	14,578

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,684.00	15,004	752.2	0	0	15,004
1,685.00	21,703	791.7	18,251	18,251	19,918
1,686.00	24,167	734.9	22,924	41,175	26,860
1,687.00	26,400	753.8	25,275	66,450	29,220

Device	Routing	Invert	Outlet Devices
#1	Primary	1,681.00'	**24.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,681.00' / 1,680.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,684.00'	**3.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,686.00'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,686.00'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=7.19 cfs @ 12.20 hrs HW=1,686.36' (Free Discharge)
└**1=Culvert** (Passes 7.19 cfs of 24.94 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.48 cfs @ 7.17 fps)
  └**3=Orifice/Grate** (Weir Controls 6.71 cfs @ 1.97 fps)

Secondary OutFlow Max=4.39 cfs @ 12.20 hrs HW=1,686.36' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 4.39 cfs @ 1.52 fps)

Summary for Pond P11: Parking Lot G Wet Pond

Inflow Area = 8.304 ac, 46.98% Impervious, Inflow Depth = 2.81" for 25-Year event
Inflow = 40.48 cfs @ 11.95 hrs, Volume= 1.944 af
Outflow = 3.19 cfs @ 12.50 hrs, Volume= 1.809 af, Atten= 92%, Lag= 33.2 min
Primary = 3.19 cfs @ 12.50 hrs, Volume= 1.809 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,534.10' Surf.Area= 24,527 sf Storage= 51,257 cf
Peak Elev= 1,536.81' @ 12.50 hrs Surf.Area= 32,738 sf Storage= 100,876 cf (49,619 cf above start)

Plug-Flow detention time= 4,009.4 min calculated for 0.633 af (33% of inflow)
Center-of-Mass det. time= 1,626.5 min (2,429.7 - 803.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,527.00'	49,963 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,534.00'	77,661 cf	**CPv (Irregular)** Listed below (Recalc)
		127,624 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,527.00	3,398	312.2	0	0	3,398
1,528.00	4,364	331.3	3,871	3,871	4,428
1,529.00	5,386	350.1	4,866	8,737	5,502
1,530.00	6,465	369.0	5,917	14,654	6,642
1,531.00	7,600	387.8	7,025	21,679	7,836
1,532.00	8,792	406.7	8,189	29,868	9,095
1,533.00	10,040	425.5	9,409	39,277	10,408
1,534.00	11,345	444.4	10,686	49,963	11,787

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,534.00	12,700	621.7	0	0	12,700
1,535.00	17,927	661.0	15,239	15,239	16,762
1,536.00	19,949	587.1	18,929	34,168	24,129
1,537.00	21,739	606.0	20,838	55,005	26,020
1,538.00	23,585	624.8	22,656	77,661	27,961

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.00' / 1,528.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,534.10'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,536.60'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,536.90'	**8.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=3.14 cfs @ 12.50 hrs HW=1,536.81' (Free Discharge)
└**1=Culvert** (Passes 3.14 cfs of 61.92 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.80 fps)
  └**3=Orifice/Grate** (Weir Controls 2.97 cfs @ 1.50 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,534.10' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P12: Drop-off Parking Lot Soil Filter

Inflow Area = 4.069 ac, 25.29% Impervious, Inflow Depth = 2.48" for 25-Year event
Inflow = 11.95 cfs @ 11.94 hrs, Volume= 0.842 af
Outflow = 1.78 cfs @ 12.73 hrs, Volume= 0.842 af, Atten= 85%, Lag= 47.6 min
Primary = 1.78 cfs @ 12.73 hrs, Volume= 0.842 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,466.33' Surf.Area= 3,018 sf Storage= 398 cf
Peak Elev= 1,472.79' @ 12.73 hrs Surf.Area= 6,444 sf Storage= 20,781 cf (20,383 cf above start)

Plug-Flow detention time= 1,454.4 min calculated for 0.832 af (99% of inflow)
Center-of-Mass det. time= 1,431.1 min (2,253.5 - 822.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,466.00'	29,485 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,466.00	3,018	237.3	0.0	0	0	3,018
1,467.50	3,018	237.3	40.0	1,811	1,811	3,374
1,469.00	3,018	237.3	40.0	1,811	3,622	3,730
1,470.00	3,758	256.1	100.0	3,381	7,003	4,508
1,472.00	5,408	293.8	100.0	9,116	16,119	6,247
1,473.00	6,739	328.1	100.0	6,061	22,180	7,973
1,474.00	7,886	362.8	100.0	7,305	29,485	9,912

Device	Routing	Invert	Outlet Devices
#1	Primary	1,466.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,466.00' / 1,464.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,466.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,472.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,473.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=1.76 cfs @ 12.73 hrs HW=1,472.79' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.76 cfs of 16.51 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 12.19 fps)
  └**3=Orifice/Grate** (Weir Controls 1.67 cfs @ 1.42 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,466.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P13: Parking Lot H Wet Pond

Inflow Area = 2.921 ac, 40.05% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 14.91 cfs @ 11.93 hrs, Volume= 0.664 af
Outflow = 0.84 cfs @ 12.70 hrs, Volume= 0.662 af, Atten= 94%, Lag= 46.3 min
Primary = 0.84 cfs @ 12.70 hrs, Volume= 0.662 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Starting Elev= 1,567.00' Surf.Area= 11,858 sf Storage= 14,847 cf
Peak Elev= 1,568.90' @ 12.70 hrs Surf.Area= 17,025 sf Storage= 32,014 cf (17,166 cf above start)

Plug-Flow detention time= 2,170.8 min calculated for 0.321 af (48% of inflow)
Center-of-Mass det. time= 1,117.1 min (1,921.9 - 804.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,561.00'	14,847 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,567.00'	30,200 cf	**CPv (Irregular)** Listed below (Recalc)
		45,047 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,561.00	495	188.6	0	0	495
1,566.00	4,031	282.9	9,898	9,898	4,224
1,567.00	5,929	467.9	4,950	14,847	15,284

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,567.00	5,929	467.9	0	0	5,929
1,568.00	9,766	479.1	7,768	7,768	6,897
1,569.00	11,246	454.1	10,497	18,265	8,811
1,570.00	12,637	473.0	11,935	30,200	10,280

Device	Routing	Invert	Outlet Devices
#1	Primary	1,560.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,560.00' / 1,559.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,567.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,568.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,569.00'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.81 cfs @ 12.70 hrs HW=1,568.90' (Free Discharge)
└**1=Culvert** (Passes 0.81 cfs of 73.10 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.49 fps)
  └**3=Orifice/Grate** (Weir Controls 0.67 cfs @ 1.04 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,567.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P14: Timbers 1-7 Wet Pond

Inflow Area = 7.555 ac, 24.78% Impervious, Inflow Depth = 2.13" for 25-Year event
Inflow = 31.13 cfs @ 11.93 hrs, Volume= 1.339 af
Outflow = 6.99 cfs @ 12.06 hrs, Volume= 1.335 af, Atten= 78%, Lag= 7.9 min
Primary = 6.55 cfs @ 12.06 hrs, Volume= 1.332 af
Secondary = 0.44 cfs @ 12.06 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,721.00' Surf.Area= 19,738 sf Storage= 31,523 cf
Peak Elev= 1,722.86' @ 12.06 hrs Surf.Area= 26,762 sf Storage= 57,703 cf (26,180 cf above start)

Plug-Flow detention time= 1,479.4 min calculated for 0.611 af (46% of inflow)
Center-of-Mass det. time= 619.1 min (1,445.0 - 825.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,715.00'	31,523 cf	**Permanent Pool (Irregular)** Listed below (Recalc)
#2	1,721.00'	46,722 cf	**CPv (Irregular)** Listed below (Recalc)
		78,245 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,715.00	1,909	325.0	0	0	1,909
1,716.00	2,912	343.8	2,393	2,393	2,964
1,717.00	3,972	362.7	3,428	5,821	4,084
1,718.00	5,088	381.6	4,519	10,340	5,263
1,719.00	6,261	400.4	5,664	16,004	6,497
1,720.00	7,490	419.3	6,866	22,870	7,796
1,721.00	9,869	603.5	8,652	31,523	22,797

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,721.00	9,869	603.5	0	0	9,869
1,722.00	15,216	645.8	12,446	12,446	14,120
1,723.00	17,184	596.9	16,190	28,636	18,996
1,724.00	19,003	615.8	18,086	46,722	20,918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,714.00'	**36.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,714.00' / 1,713.00' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 7.07 sf
#2	Device 1	1,721.00'	**2.5" Vert. Orifice/Grate - Gravel Bench Underdrain** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,722.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,722.80'	**12.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=6.40 cfs @ 12.06 hrs HW=1,722.85' (Free Discharge)
└**1=Culvert** (Passes 6.40 cfs of 72.84 cfs potential flow)
  ├**2=Orifice/Grate - Gravel Bench Underdrain**(Orifice Controls 0.22 cfs @ 6.36 fps)
  └**3=Orifice/Grate** (Weir Controls 6.18 cfs @ 2.19 fps)

Secondary OutFlow Max=0.33 cfs @ 12.06 hrs HW=1,722.85' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Weir Controls 0.33 cfs @ 0.54 fps)

Summary for Pond P15: Timbers 8-10 Soil Filter

Inflow Area = 1.209 ac, 42.76% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 5.87 cfs @ 11.91 hrs, Volume= 0.257 af
Outflow = 0.06 cfs @ 19.63 hrs, Volume= 0.257 af, Atten= 99%, Lag= 463.4 min
Primary = 0.06 cfs @ 19.63 hrs, Volume= 0.257 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,083.33' Surf.Area= 2,042 sf Storage= 270 cf
Peak Elev= 2,088.20' @ 19.63 hrs Surf.Area= 3,913 sf Storage= 8,799 cf (8,529 cf above start)

Plug-Flow detention time= 1,659.3 min calculated for 0.250 af (98% of inflow)
Center-of-Mass det. time= 1,602.8 min (2,413.2 - 810.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,083.00'	17,217 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,083.00	2,042	210.0	0.0	0	0	2,042
2,084.50	2,042	210.0	40.0	1,225	1,225	2,357
2,086.00	2,042	210.0	40.0	1,225	2,450	2,672
2,087.00	2,702	230.0	100.0	2,364	4,815	3,406
2,088.00	3,753	271.0	100.0	3,213	8,028	5,060
2,090.00	5,491	308.5	100.0	9,189	17,217	6,884

Device	Routing	Invert	Outlet Devices
#1	Primary	2,083.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,083.00' / 2,082.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,083.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	2,088.20'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	2,088.30'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.06 cfs @ 19.63 hrs HW=2,088.20' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.06 cfs of 24.48 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.58 fps)
  └**3=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.11 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,083.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P16: Timbers 11-14 Soil Filter

Inflow Area = 1.829 ac, 34.99% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 8.36 cfs @ 11.96 hrs, Volume= 0.402 af
Outflow = 2.06 cfs @ 12.12 hrs, Volume= 0.402 af, Atten= 75%, Lag= 9.7 min
Primary = 2.06 cfs @ 12.12 hrs, Volume= 0.402 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,119.33' Surf.Area= 2,430 sf Storage= 321 cf
Peak Elev= 2,123.91' @ 12.12 hrs Surf.Area= 3,911 sf Storage= 8,917 cf (8,597 cf above start)

Plug-Flow detention time= 793.3 min calculated for 0.394 af (98% of inflow)
Center-of-Mass det. time= 765.5 min (1,576.3 - 810.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,119.00'	13,840 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
2,119.00	2,430	238.8	0.0	0	0	2,430
2,120.50	2,430	238.8	40.0	1,458	1,458	2,788
2,122.00	2,430	238.8	40.0	1,458	2,916	3,146
2,124.00	3,989	280.8	100.0	6,355	9,271	4,959
2,125.00	5,174	303.4	100.0	4,569	13,840	6,050

Device	Routing	Invert	Outlet Devices
#1	Primary	2,119.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,119.00' / 2,117.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	2,119.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,119.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,123.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,124.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=1.91 cfs @ 12.12 hrs HW=2,123.90' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.91 cfs of 23.58 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.24 fps)
    └**3=Exfiltration** (Passes 0.08 cfs of 0.27 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 1.83 cfs @ 1.46 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,119.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P6: Lot R43 Soil Filter

Inflow Area = 1.624 ac, 6.59% Impervious, Inflow Depth = 2.13" for 25-Year event
Inflow = 4.56 cfs @ 12.06 hrs, Volume= 0.288 af
Outflow = 1.22 cfs @ 12.36 hrs, Volume= 0.302 af, Atten= 73%, Lag= 17.5 min
Primary = 1.22 cfs @ 12.36 hrs, Volume= 0.302 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,823.33' Surf.Area= 1,505 sf Storage= 801 cf
Peak Elev= 1,826.90' @ 12.36 hrs Surf.Area= 3,019 sf Storage= 6,012 cf (5,211 cf above start)

Plug-Flow detention time= 745.2 min calculated for 0.283 af (98% of inflow)
Center-of-Mass det. time= 663.6 min (1,500.4 - 836.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,822.00'	9,945 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,822.00	1,505	233.0	0.0	0	0	1,505
1,823.50	1,505	233.0	40.0	903	903	1,855
1,825.00	1,505	233.0	40.0	903	1,806	2,204
1,826.00	2,234	252.5	100.0	1,858	3,664	2,996
1,828.00	4,145	312.6	100.0	6,281	9,945	5,757

Device	Routing	Invert	Outlet Devices
#1	Primary	1,822.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,822.00' / 1,822.00' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	1,822.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,826.75'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,826.90'	**4.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.21 cfs @ 12.36 hrs HW=1,826.90' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.21 cfs of 9.14 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.24 fps)
  └**3=Orifice/Grate** (Weir Controls 1.15 cfs @ 1.25 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,823.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P7: R40 Gravel Wetland

Inflow Area = 3.407 ac, 26.21% Impervious, Inflow Depth = 2.33" for 25-Year event
Inflow = 8.14 cfs @ 12.06 hrs, Volume= 0.662 af
Outflow = 0.40 cfs @ 14.76 hrs, Volume= 0.554 af, Atten= 95%, Lag= 162.0 min
Primary = 0.25 cfs @ 14.76 hrs, Volume= 0.481 af
Secondary = 0.14 cfs @ 14.76 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,878.66' Surf.Area= 2,904 sf Storage= 3,090 cf
Peak Elev= 1,882.04' @ 14.76 hrs Surf.Area= 12,283 sf Storage= 19,448 cf (16,358 cf above start)

Plug-Flow detention time= 2,404.4 min calculated for 0.483 af (73% of inflow)
Center-of-Mass det. time= 1,901.0 min (2,894.2 - 993.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,876.00'	4,453 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,876.00'	4,490 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,879.00'	867 cf	**Forebay (Irregular)** Listed below (Recalc)
#4	1,880.50'	21,050 cf	**Ponding (Irregular)** Listed below (Recalc)
		30,860 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,451	148.5	0.0	0	0	1,451
1,879.00	1,451	148.5	40.0	1,741	1,741	1,897
1,880.50	2,190	179.7	100.0	2,712	4,453	2,748

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.00	1,453	157.2	0.0	0	0	1,453
1,879.00	1,453	157.2	40.0	1,744	1,744	1,925
1,880.50	2,237	191.9	100.0	2,746	4,490	2,924

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,879.00	365	83.7	0.0	0	0	365
1,880.50	821	118.0	100.0	867	867	936

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,880.50	5,542	309.5	0	0	5,542
1,882.00	6,999	337.8	9,385	9,385	7,078
1,883.50	8,582	366.0	11,666	21,050	8,744

Device	Routing	Invert	Outlet Devices
#1	Primary	1,878.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,878.00' / 1,877.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,878.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,882.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,882.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.19 cfs @ 14.76 hrs HW=1,882.04' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 20.81 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.79 fps)
└**3=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.62 fps)

Secondary OutFlow Max=0.10 cfs @ 14.76 hrs HW=1,882.04' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.10 cfs @ 0.46 fps)

Summary for Pond RG 16: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af
Outflow = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af, Atten= 76%, Lag= 10.1 min
Primary = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.72' @ 12.14 hrs Surf.Area= 1,987 sf Storage= 3,264 cf (3,048 cf above start)

Plug-Flow detention time= 528.4 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 490.3 min (1,316.7 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.76 cfs @ 12.14 hrs HW=2,103.72' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.76 cfs of 11.58 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.81 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.71 cfs @ 1.54 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17A: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 3.93 cfs @ 11.97 hrs, Volume= 0.191 af
Outflow = 1.19 cfs @ 12.11 hrs, Volume= 0.191 af, Atten= 70%, Lag= 8.6 min
Primary = 1.19 cfs @ 12.11 hrs, Volume= 0.191 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.96' @ 12.11 hrs Surf.Area= 2,102 sf Storage= 3,742 cf (3,526 cf above start)

Plug-Flow detention time= 450.4 min calculated for 0.186 af (97% of inflow)
Center-of-Mass det. time= 419.4 min (1,242.9 - 823.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.18 cfs @ 12.11 hrs HW=2,103.95' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.18 cfs of 12.02 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.11 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.15 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.13 cfs @ 3.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 17B: Large Rain Garden

Inflow Area = 1.000 ac, 35.00% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 3.93 cfs @ 11.97 hrs, Volume= 0.191 af
Outflow = 1.19 cfs @ 12.11 hrs, Volume= 0.191 af, Atten= 70%, Lag= 8.6 min
Primary = 1.19 cfs @ 12.11 hrs, Volume= 0.191 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.96' @ 12.11 hrs Surf.Area= 2,102 sf Storage= 3,742 cf (3,526 cf above start)

Plug-Flow detention time= 450.4 min calculated for 0.186 af (97% of inflow)
Center-of-Mass det. time= 419.4 min (1,242.9 - 823.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.18 cfs @ 12.11 hrs HW=2,103.95' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.18 cfs of 12.02 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.11 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.15 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.13 cfs @ 3.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 18: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 3.68 cfs @ 11.97 hrs, Volume= 0.180 af
Outflow = 1.15 cfs @ 12.11 hrs, Volume= 0.180 af, Atten= 69%, Lag= 8.5 min
Primary = 1.15 cfs @ 12.11 hrs, Volume= 0.180 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,203.93' @ 12.11 hrs Surf.Area= 2,087 sf Storage= 3,678 cf (3,462 cf above start)

Plug-Flow detention time= 468.8 min calculated for 0.176 af (97% of inflow)
Center-of-Mass det. time= 435.0 min (1,249.5 - 814.6)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.14 cfs @ 12.11 hrs HW=2,203.92' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.14 cfs of 11.96 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.07 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.09 cfs @ 3.12 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 19: Large Rain Garden

Inflow Area = 0.850 ac, 35.18% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 3.45 cfs @ 11.97 hrs, Volume= 0.168 af
Outflow = 1.00 cfs @ 12.12 hrs, Volume= 0.168 af, Atten= 71%, Lag= 8.9 min
Primary = 1.00 cfs @ 12.12 hrs, Volume= 0.168 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,200.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,203.82' @ 12.12 hrs Surf.Area= 2,036 sf Storage= 3,463 cf (3,248 cf above start)

Plug-Flow detention time= 497.4 min calculated for 0.163 af (97% of inflow)
Center-of-Mass det. time= 461.0 min (1,281.6 - 820.6)

Volume	Invert	Avail.Storage	Storage Description
#1	2,200.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,200.00	1,630	0.0	0	0
2,201.50	1,630	40.0	978	978
2,203.00	1,630	40.0	978	1,956
2,204.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,200.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,200.00' / 2,198.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,200.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,200.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,203.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,204.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.99 cfs @ 12.12 hrs HW=2,203.81' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.99 cfs of 11.76 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.93 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.94 cfs @ 2.70 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,200.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 20: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 3.33 cfs @ 11.97 hrs, Volume= 0.162 af
Outflow = 0.93 cfs @ 12.12 hrs, Volume= 0.162 af, Atten= 72%, Lag= 9.1 min
Primary = 0.93 cfs @ 12.12 hrs, Volume= 0.162 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,100.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,103.77' @ 12.12 hrs Surf.Area= 2,012 sf Storage= 3,365 cf (3,150 cf above start)

Plug-Flow detention time= 511.9 min calculated for 0.157 af (97% of inflow)
Center-of-Mass det. time= 475.5 min (1,299.0 - 823.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,100.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,100.00	1,630	0.0	0	0
2,101.50	1,630	40.0	978	978
2,103.00	1,630	40.0	978	1,956
2,104.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,100.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,100.00' / 2,098.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,100.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,100.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,103.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,104.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.12 hrs HW=2,103.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.86 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,100.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 22: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=2,053.94' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 23: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,053.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,321	0.0	0	0
2,051.50	1,321	40.0	793	793
2,053.00	1,321	40.0	793	1,585
2,054.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=2,053.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
└**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
└**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 24: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.78 cfs @ 11.97 hrs, Volume= 0.187 af
Outflow = 1.22 cfs @ 12.11 hrs, Volume= 0.187 af, Atten= 68%, Lag= 8.4 min
Primary = 1.22 cfs @ 12.11 hrs, Volume= 0.187 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 2,053.98' @ 12.11 hrs Surf.Area= 2,114 sf Storage= 3,793 cf (3,578 cf above start)

Plug-Flow detention time= 456.1 min calculated for 0.182 af (97% of inflow)
Center-of-Mass det. time= 423.4 min (1,234.8 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	1,630	0.0	0	0
2,051.50	1,630	40.0	978	978
2,053.00	1,630	40.0	978	1,956
2,054.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.21 cfs @ 12.11 hrs HW=2,053.98' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.21 cfs of 12.07 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.14 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.15 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.16 cfs @ 3.32 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 25: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,053.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 277.9 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=2,053.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 26: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,050.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,053.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 277.9 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,050.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,050.00	790	0.0	0	0
2,051.50	790	40.0	474	474
2,053.00	790	40.0	474	948
2,054.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,050.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,050.00' / 2,048.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,050.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,050.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,053.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,054.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=2,053.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,050.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 27: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,903.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 28: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,903.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 29: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,903.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 30: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,903.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	790	0.0	0	0
1,901.50	790	40.0	474	474
1,903.00	790	40.0	474	948
1,904.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,903.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 31: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=2,003.94' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 32: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,803.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,803.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 33: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af
Outflow = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af, Atten= 67%, Lag= 8.6 min
Primary = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.67' @ 12.11 hrs Surf.Area= 1,029 sf Storage= 1,557 cf (1,453 cf above start)

Plug-Flow detention time= 306.0 min calculated for 0.075 af (97% of inflow)
Center-of-Mass det. time= 272.8 min (1,093.4 - 820.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.50 cfs @ 12.11 hrs HW=1,803.66' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.50 cfs of 11.46 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.73 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.45 cfs @ 1.32 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 34: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,803.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 35: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,803.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 36: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,823.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,823.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 37: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,820.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,823.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,820.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,820.00	790	0.0	0	0
1,821.50	790	40.0	474	474
1,823.00	790	40.0	474	948
1,824.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,820.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,820.00' / 1,818.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,820.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,820.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,823.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,824.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,823.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,820.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 38: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,000.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,003.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,000.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,000.00	1,321	0.0	0	0
2,001.50	1,321	40.0	793	793
2,003.00	1,321	40.0	793	1,585
2,004.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,000.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,000.00' / 1,998.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,000.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,000.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,003.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,004.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=2,003.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,000.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 39: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 3.05 cfs @ 11.97 hrs, Volume= 0.150 af
Outflow = 1.11 cfs @ 12.10 hrs, Volume= 0.150 af, Atten= 64%, Lag= 7.8 min
Primary = 1.11 cfs @ 12.10 hrs, Volume= 0.150 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,903.90' @ 12.10 hrs Surf.Area= 1,723 sf Storage= 2,947 cf (2,773 cf above start)

Plug-Flow detention time= 402.3 min calculated for 0.146 af (97% of inflow)
Center-of-Mass det. time= 371.9 min (1,186.5 - 814.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.10 cfs @ 12.10 hrs HW=1,903.89' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.10 cfs of 11.91 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.04 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 1.06 cfs @ 3.02 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 40: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 2.46" for 25-Year event
Inflow = 2.95 cfs @ 11.97 hrs, Volume= 0.144 af
Outflow = 1.04 cfs @ 12.10 hrs, Volume= 0.144 af, Atten= 65%, Lag= 8.0 min
Primary = 1.04 cfs @ 12.10 hrs, Volume= 0.144 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,900.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,903.85' @ 12.10 hrs Surf.Area= 1,701 sf Storage= 2,866 cf (2,691 cf above start)

Plug-Flow detention time= 414.2 min calculated for 0.140 af (97% of inflow)
Center-of-Mass det. time= 382.7 min (1,200.4 - 817.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,900.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,900.00	1,321	0.0	0	0
1,901.50	1,321	40.0	793	793
1,903.00	1,321	40.0	793	1,585
1,904.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,900.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,900.00' / 1,898.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,900.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,900.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,903.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,904.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.04 cfs @ 12.10 hrs HW=1,903.85' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.04 cfs of 11.82 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.97 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.99 cfs @ 2.83 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,900.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 41: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,803.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	790	0.0	0	0
1,801.50	790	40.0	474	474
1,803.00	790	40.0	474	948
1,804.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,803.76' (Free Discharge)
- **1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 42: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,800.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,803.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,800.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,800.00	1,321	0.0	0	0
1,801.50	1,321	40.0	793	793
1,803.00	1,321	40.0	793	1,585
1,804.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,800.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,800.00' / 1,798.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,800.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,800.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,803.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,804.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=1,803.94' (Free Discharge)
- **1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
    - **3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,800.33' (Free Discharge)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 43: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 2.86 cfs @ 11.97 hrs, Volume= 0.140 af
Outflow = 0.97 cfs @ 12.11 hrs, Volume= 0.140 af, Atten= 66%, Lag= 8.3 min
Primary = 0.97 cfs @ 12.11 hrs, Volume= 0.140 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.80' @ 12.11 hrs Surf.Area= 1,681 sf Storage= 2,789 cf (2,615 cf above start)

Plug-Flow detention time= 425.8 min calculated for 0.135 af (97% of inflow)
Center-of-Mass det. time= 393.3 min (1,213.9 - 820.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.97 cfs @ 12.11 hrs HW=1,753.80' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.97 cfs of 11.73 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.91 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.92 cfs @ 2.63 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 44: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 3.04 cfs @ 11.97 hrs, Volume= 0.149 af
Outflow = 1.10 cfs @ 12.10 hrs, Volume= 0.149 af, Atten= 64%, Lag= 7.8 min
Primary = 1.10 cfs @ 12.10 hrs, Volume= 0.149 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.89' @ 12.10 hrs Surf.Area= 1,722 sf Storage= 2,945 cf (2,771 cf above start)

Plug-Flow detention time= 402.7 min calculated for 0.145 af (97% of inflow)
Center-of-Mass det. time= 372.3 min (1,186.9 - 814.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.10 cfs @ 12.10 hrs HW=1,753.89' (Free Discharge)
└─**1=Outlet Culvert** (Passes 1.10 cfs of 11.91 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.04 fps)
    └─**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └─**4=Orifice/Grate** (Orifice Controls 1.05 cfs @ 3.02 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 45: Medium Rain Garden

Inflow Area = 0.704 ac, 32.53% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.76 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.76 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,656 cf (2,481 cf above start)

Plug-Flow detention time= 454.0 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 417.3 min (1,243.7 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,753.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.67 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 46: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,753.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 47: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,753.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,750.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,750.00	1,321	0.0	0	0
1,751.50	1,321	40.0	793	793
1,753.00	1,321	40.0	793	1,585
1,754.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,748.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,750.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,750.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,753.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,754.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,753.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 48: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,853.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 49: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,853.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 50: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,850.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,853.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,850.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,850.00	1,321	0.0	0	0
1,851.50	1,321	40.0	793	793
1,853.00	1,321	40.0	793	1,585
1,854.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,850.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,850.00' / 1,848.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,850.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,850.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,853.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,854.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=1,853.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,850.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link SP1:

Inflow Area = 328.419 ac, 5.67% Impervious, Inflow Depth > 1.88" for 25-Year event
Inflow = 291.74 cfs @ 12.57 hrs, Volume= 51.402 af
Primary = 291.74 cfs @ 12.57 hrs, Volume= 51.402 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP10:

Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP11:

Inflow Area = 6.579 ac, 3.57% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 12.91 cfs @ 12.11 hrs, Volume= 1.123 af
Primary = 12.91 cfs @ 12.11 hrs, Volume= 1.123 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP12:

Inflow Area = 20.593 ac, 12.11% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 26.92 cfs @ 12.19 hrs, Volume= 3.520 af
Primary = 26.92 cfs @ 12.19 hrs, Volume= 3.520 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP13:

Inflow Area = 12.275 ac, 33.70% Impervious, Inflow Depth > 2.46" for 25-Year event
Inflow = 12.09 cfs @ 12.19 hrs, Volume= 2.518 af
Primary = 12.09 cfs @ 12.19 hrs, Volume= 2.518 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 1.275 ac, 5.49% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 2.69 cfs @ 12.16 hrs, Volume= 0.218 af
Primary = 2.69 cfs @ 12.16 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP3:

Inflow Area = 4.241 ac, 25.14% Impervious, Inflow Depth > 2.48" for 25-Year event
Inflow = 1.84 cfs @ 12.72 hrs, Volume= 0.876 af
Primary = 1.84 cfs @ 12.72 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP4:

Inflow Area = 61.872 ac, 2.01% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 75.31 cfs @ 12.10 hrs, Volume= 9.768 af
Primary = 75.31 cfs @ 12.10 hrs, Volume= 9.768 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP5:

Inflow Area = 2.355 ac, 0.51% Impervious, Inflow Depth = 1.97" for 25-Year event
Inflow = 4.27 cfs @ 12.21 hrs, Volume= 0.387 af
Primary = 4.27 cfs @ 12.21 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP6:

Inflow Area = 76.841 ac, 9.82% Impervious, Inflow Depth > 1.95" for 25-Year event
Inflow = 83.33 cfs @ 12.18 hrs, Volume= 12.487 af
Primary = 83.33 cfs @ 12.18 hrs, Volume= 12.487 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP7:

Inflow Area = 0.872 ac, 6.42% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 2.45 cfs @ 12.05 hrs, Volume= 0.149 af
Primary = 2.45 cfs @ 12.05 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP8:

Inflow Area = 0.344 ac, 19.19% Impervious, Inflow Depth = 2.29" for 25-Year event
Inflow = 1.13 cfs @ 12.03 hrs, Volume= 0.066 af
Primary = 1.13 cfs @ 12.03 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP9:

Inflow Area = 0.148 ac, 24.32% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 0.51 cfs @ 12.03 hrs, Volume= 0.029 af
Primary = 0.51 cfs @ 12.03 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

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468 Pond P13: Parking Lot H Wet Pond
469 Pond P14: Timbers 1-7 Wet Pond
471 Pond P15: Timbers 8-10 Soil Filter
472 Pond P16: Timbers 11-14 Soil Filter
473 Pond P6: Lot R43 Soil Filter
474 Pond P7: R40 Gravel Wetland
475 Pond RG 16: Large Rain Garden
476 Pond RG 17A: Large Rain Garden
477 Pond RG 17B: Large Rain Garden
478 Pond RG 18: Large Rain Garden
479 Pond RG 19: Large Rain Garden
480 Pond RG 20: Large Rain Garden
481 Pond RG 22: Medium Rain Garden
482 Pond RG 23: Medium Rain Garden
483 Pond RG 24: Large Rain Garden

484 Pond RG 25: Small Rain Garden
485 Pond RG 26: Small Rain Garden
486 Pond RG 27: Small Rain Garden
487 Pond RG 28: Small Rain Garden
488 Pond RG 29: Small Rain Garden
489 Pond RG 30: Small Rain Garden
490 Pond RG 31: Medium Rain Garden
491 Pond RG 32: Medium Rain Garden
492 Pond RG 33: Small Rain Garden
493 Pond RG 34: Small Rain Garden
494 Pond RG 35: Small Rain Garden
495 Pond RG 36: Small Rain Garden
496 Pond RG 37: Small Rain Garden
497 Pond RG 38: Medium Rain Garden
498 Pond RG 39: Medium Rain Garden
499 Pond RG 40: Medium Rain Garden
500 Pond RG 41: Small Rain Garden
501 Pond RG 42: Medium Rain Garden
502 Pond RG 43: Medium Rain Garden
503 Pond RG 44: Medium Rain Garden
504 Pond RG 45: Medium Rain Garden
505 Pond RG 46: Medium Rain Garden
506 Pond RG 47: Medium Rain Garden
507 Pond RG 48: Medium Rain Garden
508 Pond RG 49: Medium Rain Garden
509 Pond RG 50: Medium Rain Garden
510 Link SP1:
510 Link SP10:
510 Link SP11:
510 Link SP12:
511 Link SP13:
511 Link SP2:
511 Link SP3:
511 Link SP4:
511 Link SP5:
511 Link SP6:
512 Link SP7:
512 Link SP8:
512 Link SP9:

25-Year Event
512 Node Listing
524 Subcat 1: WS 1
526 Subcat 1-1: WS 1-1
526 Subcat 1-2: WS 1-2
527 Subcat 1-3: WS 1-3
528 Subcat 1-4: WS 1-4
530 Subcat 1-5: WS 1-5

532 Subcat 1-6: WS 1-6
533 Subcat 1-7: WS 1-7
535 Subcat 1-8: WS 1-8
537 Subcat 1A: WS 1A
538 Subcat 1B: WS 1B
540 Subcat 1B1: WS 1B1 - Lot G
541 Subcat 1C: WS 1C
542 Subcat 1C1: WS 1C1
544 Subcat 1C2: WS 1C2- Ex lot E
545 Subcat 1D: WS 1D- Ex Timbers
548 Subcat 1D1: WS 1D1
549 Subcat 1D2: WS 1D2
550 Subcat 1D3: WS 1D3
551 Subcat 1D4: WS 1D4
552 Subcat 1D5: Untreated from Timbers (1D5)
553 Subcat 1D6: WS 1D6
554 Subcat 1D7: WS 1D7
556 Subcat 2: WS 2
557 Subcat 2A: WS 2A
558 Subcat 3: WS 3
559 Subcat 3A: WS 3A
560 Subcat 4: WS 4
561 Subcat 4A: WS 4A
562 Subcat 4B: WS 4B
564 Subcat 4C: WS 4C
566 Subcat 5: WS 5
567 Subcat 6: WS 6
569 Subcat 6A: WS 6A
570 Subcat 6B: WS 6B
571 Subcat 6C: WS 6C
572 Subcat 7: WS 7
573 Subcat 7A: WS 7A
574 Subcat 7B: WS 7B
575 Subcat 7C: WS 7C
577 Subcat 7D: WS 7D
577 Subcat 7F: WS 7F
578 Subcat 7G: WS 7G
579 Subcat 7H: WS 7H
581 Subcat 8: WS 8
581 Subcat 9: WS 9
582 Subcat 10: WS 10
583 Subcat 10A: WS 10A
584 Subcat 10B: WS 10B
585 Subcat 11: WS 11
586 Subcat 11A: WS 11A
587 Subcat 11B: WS 11B
588 Subcat 12: WS 12
589 Subcat 12A: WS 12A

590 Subcat 12B: WS 12B
591 Subcat 12C: WS 12C
592 Subcat 12D: WS 12D
593 Subcat 12E: WS 12E
594 Subcat 12F: WS 12F
596 Subcat 12G: WS 12G
597 Subcat 13: WS 13
598 Subcat 15H: WS 15H
600 Subcat 64S: WS 13A
601 Subcat 65S: WS 13B
602 Subcat 66S: WS 13C
603 Subcat R16: R16
604 Subcat R17A: R17A
604 Subcat R17B: R17B
605 Subcat R18: R18
605 Subcat R19: R19
605 Subcat R20: R20
606 Subcat R22: R22
606 Subcat R23: R23
607 Subcat R24: R24
607 Subcat R25: R25
608 Subcat R26: R26
608 Subcat R27: R27
608 Subcat R28: R28
609 Subcat R29: R29
609 Subcat R30: R30
610 Subcat R31: R31
610 Subcat R32: R32
611 Subcat R33: R33
611 Subcat R34: R34
611 Subcat R35: R35
612 Subcat R36: R36
612 Subcat R37: R37
613 Subcat R38: R38
613 Subcat R39: R39
614 Subcat R40: R40
614 Subcat R41: R41
614 Subcat R42: R42
615 Subcat R43: R43
615 Subcat R44: R44
616 Subcat R45: R45
616 Subcat R46: R46
617 Subcat R47: R47
617 Subcat R48: R48
617 Subcat R49: R49
618 Subcat R50: R50
618 Reach 17R: stream
619 Reach 19R: stream

619 Reach 23R: ditch
620 Reach 24R: ditch
620 Reach 29R: stream
621 Reach 32R: dead end stream
621 Reach 34R: stream
622 Reach 35R: flow in wetland
622 Reach 39R: stream
623 Reach 40R: stream
623 Reach 42R: stream
624 Reach 45R: flow in wetland
624 Reach 102R: stream
625 Reach 103R: stream
625 Reach 104R: stream
626 Reach 108R: stream
626 Reach 110R: stream
627 Reach 111R: upperstream
627 Reach 112R: stream
628 Reach 113R: ditch
628 Pond 10P: new 36
629 Pond 12P: new 48
629 Pond 16P: trunk line from condos
630 Pond 18P: Culvert 5 - Trail
630 Pond 20P: road culvert
630 Pond 21P: Pipe Down Slope
631 Pond 22P: Pipe Down Slope
631 Pond 25P: road culvert
631 Pond 26P: road culvert
631 Pond 28P: road culvert
631 Pond 30P: Culvert 4 -Trail
632 Pond 31P: Trail Culvert
632 Pond 33P: Culvert 12 -Road
632 Pond 36P: trail culvert
632 Pond 37P: Road E Culvert
632 Pond 38P: Road A Culvert
633 Pond 41P: Culvert 3 - Trail 3
633 Pond 43P: Culvert 11 -Trail 3
633 Pond 44P: Culvert 13 -Road A
633 Pond 105P: Culvert 1 - Trail
633 Pond 106P: Culvert 2- Trail 2
633 Pond 107P: Culvert 10 -Trail 2
634 Pond 109P: Culvert 9-Trail Crossing
634 Pond P1: Condos Complex Wet Pond
635 Pond P11: Parking Lot G Wet Pond
636 Pond P12: Drop-off Parking Lot Soil Filter
637 Pond P13: Parking Lot H Wet Pond
638 Pond P14: Timbers 1-7 Wet Pond
640 Pond P15: Timbers 8-10 Soil Filter
641 Pond P16: Timbers 11-14 Soil Filter

642 Pond P6: Lot R43 Soil Filter
643 Pond P7: R40 Gravel Wetland
644 Pond RG 16: Large Rain Garden
645 Pond RG 17A: Large Rain Garden
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663 Pond RG 35: Small Rain Garden
664 Pond RG 36: Small Rain Garden
665 Pond RG 37: Small Rain Garden
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669 Pond RG 41: Small Rain Garden
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674 Pond RG 46: Medium Rain Garden
675 Pond RG 47: Medium Rain Garden
676 Pond RG 48: Medium Rain Garden
677 Pond RG 49: Medium Rain Garden
678 Pond RG 50: Medium Rain Garden
679 Link SP1:
679 Link SP10:
679 Link SP11:
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680 Link SP13:
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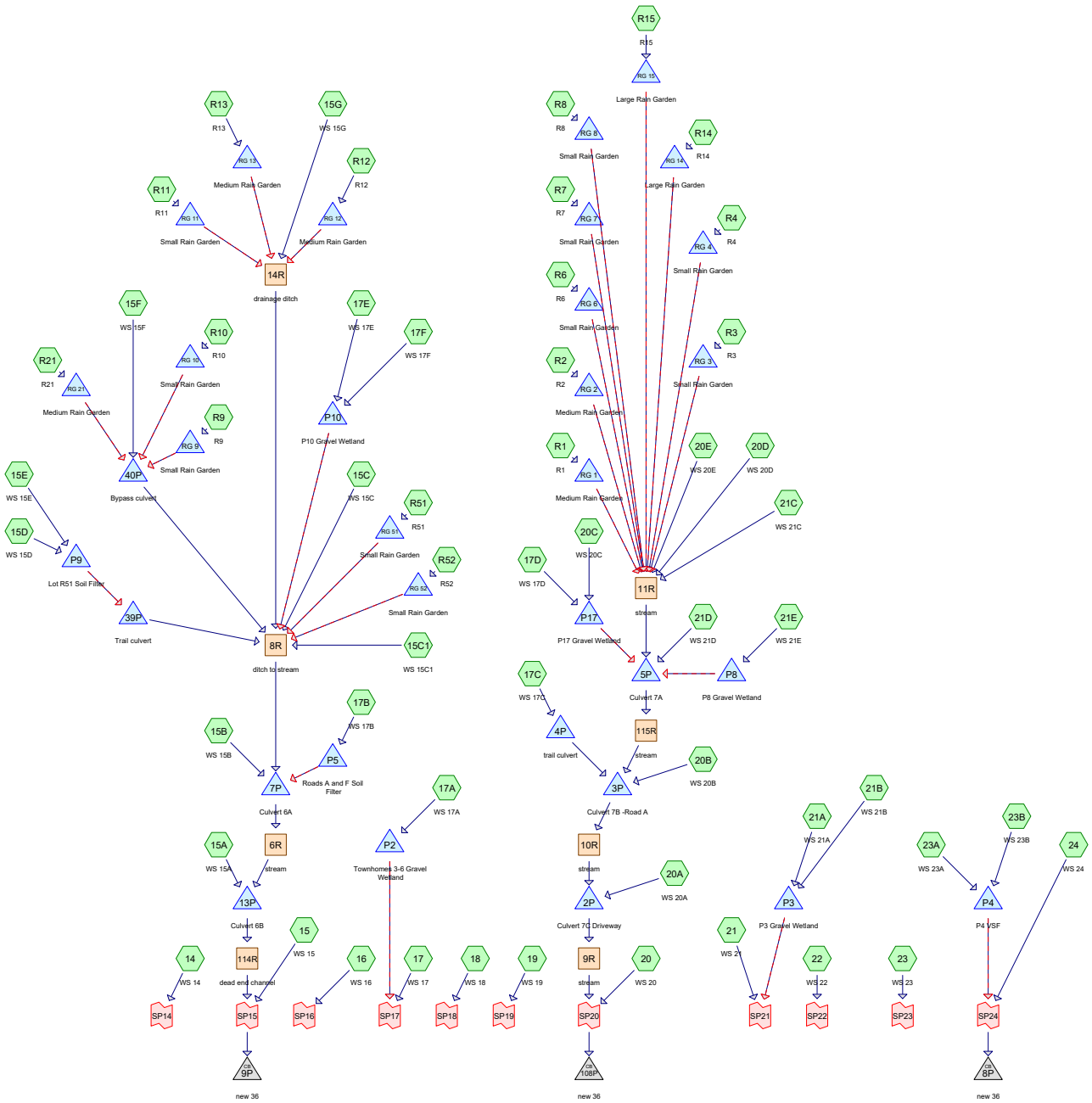
681 Link SP8:
681 Link SP9:



Routing Diagram for 55310.01-West Mountain-PR2
Prepared by VHB, Printed 4/29/2022
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.00	2
2	2-Year	Type II 24-hr		Default	24.00	1	2.40	2
3	10-Year	Type II 24-hr		Default	24.00	1	3.40	2
4	25-Year	Type II 24-hr		Default	24.00	1	4.20	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.659	70	Existing Woods, Good, HSG C (15, 15A, 15B, 15D, 15E, 15G, 16, 17, 17A, 17B, 17C, 17D, 19, 20, 20A, 20B, 20D, 20E, 21A, 21B, 21C, 21D, 21E, 23B)
19.339	77	Existing Woods, Good, HSG D (14, 15, 15E, 15F, 15G, 16, 17, 17A, 17E, 17F, 18, 19, 20, 20D, 20E, 21, 21A, 21B, 21C, 21D, 21E, 22, 23, 24)
7.883	71	Existing meadow, non-grazed, HSG C (15B, 15G, 16, 17A, 17B, 17C, 17D, 17F, 20D, 20E, 21B, 21C, 21D, 23B, 24)
13.451	78	Existing meadow, non-grazed, HSG D (15F, 15G, 16, 17, 17F, 18, 19, 20, 20D, 20E, 21, 21C, 21D, 23, 24)
1.776	70	Proposed Woods, Good, HSG C (15, 15B, 15C, 15D, 15G, 16, 17C, 20B, 20D, 21B, 21C, 21D, 23B)
0.634	77	Proposed Woods, Good, HSG D (14, 15, 15F, 15G)
9.662	71	Proposed developed meadow to be treated, HSG C (15C, 15D, 15E, 17A, 17B, 17D, 17E, 17F, 20C, 21A, 21B, 21E, 23A, R11, R12, R13, R14, R15, R51, R52, R7, R8)
10.969	78	Proposed developed meadow to be treated, HSG D (14, 15E, 15F, 17A, 17B, 17D, 17E, 17F, 20, 21A, 21B, 21E, 23A, 24, R1, R10, R11, R2, R21, R3, R4, R6, R7, R8, R9)
8.869	71	Proposed developed meadow, non-grazed, HSG C (14, 15, 15A, 15B, 15C, 15C1, 15F, 15G, 16, 17, 17C, 19, 20, 20A, 20B, 20D, 20E, 21C, 21D, 23B, 24)
3.760	78	Proposed developed meadow, non-grazed, HSG D (15, 15F, 15G, 16, 17, 18, 19, 20, 20A, 20D, 20E, 21, 21C, 22, 23, 23B, 24)
5.546	98	Proposed impervious to be treated, HSG C (15A, 15E, 17A, 17B, 17D, 17E, 20C, 21A, 21E, 23A, R11, R12, R13, R14, R15, R51, R52, R7, R8)
4.147	98	Proposed impervious to be treated, HSG D (15E, 17D, 17E, 21A, 21B, 21E, 23A, R1, R10, R11, R2, R21, R3, R4, R6, R7, R8, R9)
3.312	71	Proposed meadow, ski trail, HSG C (14, 15, 15B, 15C, 15F, 16, 17A, 17C, 20A, 20B, 20C, 20D, 21B, 23B, 24)
0.952	78	Proposed meadow, ski trail, HSG D (14, 15F, 17E)
1.021	98	Untreated existing impervious, HSG C (21C)
1.359	98	Untreated existing impervious, HSG D (14, 15, 16, 17, 18, 19, 20, 21, 21C, 22, 23, 24)
0.963	98	Untreated proposed impervious, HSG C (15A, 15B, 15C, 15F, 16, 17, 17C, 19, 20, 20A, 20B, 20D, 21D)
0.112	98	Untreated proposed impervious, HSG D (20, 20A, 24)
112.414	**77**	**TOTAL AREA**

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14: WS 14 Runoff Area=1.238 ac 3.31% Impervious Runoff Depth=0.48"
Flow Length=624' Tc=16.0 min CN=78 Runoff=0.67 cfs 0.050 af

Subcatchment15: WS 15 Runoff Area=1.306 ac 1.30% Impervious Runoff Depth=0.41"
Flow Length=624' Tc=13.7 min CN=76 Runoff=0.62 cfs 0.045 af

Subcatchment15A: WS 15A Runoff Area=1.785 ac 7.79% Impervious Runoff Depth=0.32"
Flow Length=376' Tc=3.1 min CN=73 Runoff=0.97 cfs 0.048 af

Subcatchment15B: WS 15B Runoff Area=3.249 ac 1.72% Impervious Runoff Depth=0.27"
Flow Length=689' Tc=14.3 min CN=71 Runoff=0.77 cfs 0.072 af

Subcatchment15C: WS 15C Runoff Area=0.503 ac 7.36% Impervious Runoff Depth=0.32"
Flow Length=244' Tc=1.2 min CN=73 Runoff=0.28 cfs 0.013 af

Subcatchment15C1: WS 15C1 Runoff Area=0.234 ac 0.00% Impervious Runoff Depth=0.27"
Flow Length=241' Tc=12.1 min CN=71 Runoff=0.06 cfs 0.005 af

Subcatchment15D: WS 15D Runoff Area=0.408 ac 0.00% Impervious Runoff Depth=0.27"
Flow Length=111' Slope=0.5100 '/' Tc=6.2 min CN=71 Runoff=0.15 cfs 0.009 af

Subcatchment15E: WS 15E Runoff Area=0.711 ac 38.12% Impervious Runoff Depth=0.80"
Flow Length=427' Tc=1.8 min CN=85 Runoff=1.09 cfs 0.047 af

Subcatchment15F: WS 15F Runoff Area=2.145 ac 0.05% Impervious Runoff Depth=0.48"
Flow Length=584' Slope=0.1400 '/' Tc=9.2 min CN=78 Runoff=1.51 cfs 0.087 af

Subcatchment15G: WS 15G Runoff Area=1.566 ac 0.00% Impervious Runoff Depth=0.29"
Flow Length=619' Tc=12.5 min CN=72 Runoff=0.46 cfs 0.038 af

Subcatchment16: WS 16 Runoff Area=1.345 ac 7.96% Impervious Runoff Depth=0.41"
Flow Length=640' Tc=16.1 min CN=76 Runoff=0.59 cfs 0.046 af

Subcatchment17: WS 17 Runoff Area=1.216 ac 17.52% Impervious Runoff Depth=0.56"
Flow Length=404' Tc=2.9 min CN=80 Runoff=1.31 cfs 0.057 af

Subcatchment17A: WS 17A Runoff Area=3.201 ac 25.65% Impervious Runoff Depth=0.48"
Flow Length=435' Tc=10.5 min CN=78 Runoff=2.14 cfs 0.129 af

Subcatchment17B: WS 17B Runoff Area=2.412 ac 25.58% Impervious Runoff Depth=0.48"
Flow Length=677' Tc=2.4 min CN=78 Runoff=2.23 cfs 0.097 af

Subcatchment17C: WS 17C Runoff Area=1.420 ac 9.79% Impervious Runoff Depth=0.32"
Flow Length=465' Tc=6.9 min CN=73 Runoff=0.65 cfs 0.038 af

Subcatchment17D: WS 17D Runoff Area=1.794 ac 20.79% Impervious Runoff Depth=0.41"
Flow Length=855' Tc=1.5 min CN=76 Runoff=1.38 cfs 0.062 af

Subcatchment17E: WS 17E Runoff Area=2.734 ac 36.14% Impervious Runoff Depth=0.74"
Flow Length=1,721' Tc=6.3 min CN=84 Runoff=3.51 cfs 0.169 af

Subcatchment17F: WS 17F Runoff Area=4.893 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=899' Tc=22.7 min CN=77 Runoff=1.90 cfs 0.183 af

Subcatchment18: WS 18 Runoff Area=0.207 ac 10.14% Impervious Runoff Depth=0.56"
Flow Length=157' Tc=4.2 min CN=80 Runoff=0.21 cfs 0.010 af

Subcatchment19: WS 19 Runoff Area=0.585 ac 4.10% Impervious Runoff Depth=0.41"
Flow Length=455' Tc=11.5 min CN=76 Runoff=0.31 cfs 0.020 af

Subcatchment20: WS 20 Runoff Area=1.316 ac 5.85% Impervious Runoff Depth=0.48"
Flow Length=426' Tc=6.0 min CN=78 Runoff=1.06 cfs 0.053 af

Subcatchment20A: WS 20A Runoff Area=1.160 ac 12.67% Impervious Runoff Depth=0.35"
Flow Length=330' Tc=3.3 min CN=74 Runoff=0.70 cfs 0.034 af

Subcatchment20B: WS 20B Runoff Area=0.730 ac 7.40% Impervious Runoff Depth=0.32"
Flow Length=216' Tc=5.5 min CN=73 Runoff=0.35 cfs 0.019 af

Subcatchment20C: WS 20C Runoff Area=1.681 ac 45.03% Impervious Runoff Depth=0.70"
Flow Length=450' Tc=3.7 min CN=83 Runoff=2.22 cfs 0.097 af

Subcatchment20D: WS 20D Runoff Area=11.452 ac 0.56% Impervious Runoff Depth=0.35"
Flow Length=1,926' Tc=28.2 min CN=74 Runoff=2.65 cfs 0.334 af

Subcatchment20E: WS 20E Runoff Area=1.398 ac 0.00% Impervious Runoff Depth=0.32"
Flow Length=331' Tc=13.8 min CN=73 Runoff=0.46 cfs 0.037 af

Subcatchment21: WS 21 Runoff Area=0.266 ac 7.52% Impervious Runoff Depth=0.52"
Flow Length=242' Tc=11.6 min CN=79 Runoff=0.19 cfs 0.012 af

Subcatchment21A: WS 21A Runoff Area=5.281 ac 20.37% Impervious Runoff Depth=0.65"
Flow Length=593' Tc=4.1 min CN=82 Runoff=6.37 cfs 0.285 af

Subcatchment21B: WS 21B Runoff Area=2.098 ac 2.38% Impervious Runoff Depth=0.27"
Flow Length=624' Tc=25.2 min CN=71 Runoff=0.34 cfs 0.046 af

Subcatchment21C: WS 21C Runoff Area=21.265 ac 6.68% Impervious Runoff Depth=0.38"
Flow Length=2,762' Tc=53.8 min CN=75 Runoff=3.53 cfs 0.675 af

Subcatchment21D: WS 21D Runoff Area=4.433 ac 6.32% Impervious Runoff Depth=0.29"
Flow Length=674' Tc=2.9 min CN=72 Runoff=2.14 cfs 0.108 af

Subcatchment21E: WS 21E Runoff Area=1.628 ac 46.93% Impervious Runoff Depth=0.74"
Flow Length=453' Tc=1.7 min CN=84 Runoff=2.34 cfs 0.101 af

Subcatchment22: WS 22 Runoff Area=0.225 ac 11.11% Impervious Runoff Depth=0.56"
Flow Length=208' Tc=12.3 min CN=80 Runoff=0.17 cfs 0.011 af

Subcatchment23: WS 23 Runoff Area=0.280 ac 13.93% Impervious Runoff Depth=0.56"
Flow Length=285' Tc=10.2 min CN=80 Runoff=0.23 cfs 0.013 af

Subcatchment23A: WS 23A Runoff Area=1.267 ac 44.75% Impervious Runoff Depth=0.91"
Flow Length=362' Tc=1.3 min CN=87 Runoff=2.26 cfs 0.096 af

Subcatchment23B: WS 23B Runoff Area=1.201 ac 0.00% Impervious Runoff Depth=0.27"
Flow Length=467' Tc=12.6 min CN=71 Runoff=0.30 cfs 0.027 af

Subcatchment24: WS 24 Runoff Area=14.634 ac 3.97% Impervious Runoff Depth=0.48"
Flow Length=2,578' Tc=19.4 min CN=78 Runoff=7.02 cfs 0.591 af

SubcatchmentR1: R1 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR10: R10 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR11: R11 Runoff Area=0.389 ac 41.13% Impervious Runoff Depth=0.70"
Tc=6.0 min CN=83 Runoff=0.47 cfs 0.023 af

SubcatchmentR12: R12 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR13: R13 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.67 cfs 0.033 af

SubcatchmentR14: R14 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.81 cfs 0.040 af

SubcatchmentR15: R15 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.56"
Tc=6.0 min CN=80 Runoff=0.81 cfs 0.040 af

SubcatchmentR2: R2 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR21: R21 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=85 Runoff=0.98 cfs 0.047 af

SubcatchmentR3: R3 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR4: R4 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

SubcatchmentR51: R51 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=82 Runoff=0.44 cfs 0.021 af

SubcatchmentR52: R52 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=82 Runoff=0.44 cfs 0.021 af

Subcatchment R6: R6 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

Subcatchment R7: R7 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

Subcatchment R8: R8 Runoff Area=0.407 ac 41.28% Impervious Runoff Depth=0.70"
Tc=6.0 min CN=83 Runoff=0.49 cfs 0.024 af

Subcatchment R9: R9 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.85"
Tc=6.0 min CN=86 Runoff=0.58 cfs 0.028 af

Reach 6R: stream Avg. Flow Depth=0.21' Max Vel=3.92 fps Inflow=2.61 cfs 0.953 af
n=0.050 L=280.0' S=0.1643 '/' Capacity=132.62 cfs Outflow=2.53 cfs 0.953 af

Reach 8R: ditch to stream Avg. Flow Depth=0.16' Max Vel=3.64 fps Inflow=1.89 cfs 0.784 af
n=0.050 L=475.0' S=0.1937 '/' Capacity=144.00 cfs Outflow=1.81 cfs 0.784 af

Reach 9R: stream Avg. Flow Depth=0.33' Max Vel=4.83 fps Inflow=6.03 cfs 1.813 af
n=0.050 L=330.0' S=0.1424 '/' Capacity=139.42 cfs Outflow=6.02 cfs 1.813 af

Reach 10R: stream Avg. Flow Depth=0.31' Max Vel=5.10 fps Inflow=5.96 cfs 1.779 af
n=0.050 L=140.0' S=0.1714 '/' Capacity=152.96 cfs Outflow=5.95 cfs 1.779 af

Reach 11R: stream Avg. Flow Depth=0.31' Max Vel=5.40 fps Inflow=5.49 cfs 1.354 af
n=0.050 L=300.0' S=0.1967 '/' Capacity=145.10 cfs Outflow=5.48 cfs 1.354 af

Reach 14R: drainage ditch Avg. Flow Depth=0.11' Max Vel=1.82 fps Inflow=0.54 cfs 0.127 af
n=0.069 L=600.0' S=0.1500 '/' Capacity=106.43 cfs Outflow=0.46 cfs 0.127 af

Reach 114R: dead end channel Avg. Flow Depth=0.17' Max Vel=5.17 fps Inflow=2.71 cfs 1.001 af
n=0.050 L=400.0' S=0.3750 '/' Capacity=200.37 cfs Outflow=2.65 cfs 1.001 af

Reach 115R: stream Avg. Flow Depth=0.34' Max Vel=5.08 fps Inflow=5.81 cfs 1.722 af
n=0.050 L=130.0' S=0.1538 '/' Capacity=128.34 cfs Outflow=5.80 cfs 1.722 af

Pond 2P: Culvert 7C Driveway Inflow=6.03 cfs 1.813 af
Primary=6.03 cfs 1.813 af

Pond 3P: Culvert 7B -Road A Inflow=5.96 cfs 1.779 af
Primary=5.96 cfs 1.779 af

Pond 4P: trail culvert Inflow=0.65 cfs 0.038 af
Primary=0.65 cfs 0.038 af

Pond 5P: Culvert 7A Inflow=5.81 cfs 1.722 af
Primary=5.81 cfs 1.722 af

Pond 7P: Culvert 6A Inflow=2.61 cfs 0.953 af
Primary=2.61 cfs 0.953 af

Pond 8P: new 36 Peak Elev=1.00' Inflow=7.07 cfs 0.713 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0400 '/' Outflow=7.07 cfs 0.713 af

Pond 9P: new 36 Peak Elev=0.66' Inflow=3.15 cfs 1.046 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0150 '/' Outflow=3.15 cfs 1.046 af

Pond 13P: Culvert 6B Inflow=2.71 cfs 1.001 af
Primary=2.71 cfs 1.001 af

Pond 39P: Trail culvert Inflow=0.04 cfs 0.056 af
Primary=0.04 cfs 0.056 af

Pond 40P: Bypass culvert Inflow=1.59 cfs 0.189 af
Primary=1.59 cfs 0.189 af

Pond 108P: new 36 Peak Elev=1,740.93' Inflow=6.14 cfs 1.866 af
36.0" Round Culvert n=0.025 L=70.0' S=0.0286 '/' Outflow=6.14 cfs 1.866 af

Pond P10: P10 Gravel Wetland Peak Elev=1,979.42' Storage=19,422 cf Inflow=4.17 cfs 0.352 af
Primary=0.08 cfs 0.352 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.352 af

Pond P17: P17 Gravel Wetland Peak Elev=1,875.76' Storage=9,456 cf Inflow=3.57 cfs 0.159 af
Primary=0.06 cfs 0.159 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.159 af

Pond P2: Townhomes 3-6 Gravel Wetland Peak Elev=1,747.80' Storage=8,108 cf Inflow=2.14 cfs 0.129 af
Primary=0.04 cfs 0.129 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.129 af

Pond P3: P3 Gravel Wetland Peak Elev=1,752.38' Storage=18,259 cf Inflow=6.39 cfs 0.332 af
Primary=0.08 cfs 0.332 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.332 af

Pond P4: P4 VSF Peak Elev=1,802.03' Storage=3,538 cf Inflow=2.29 cfs 0.122 af
Primary=0.06 cfs 0.122 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.122 af

Pond P5: Roads A and F Soil Filter Peak Elev=1,833.41' Storage=2,734 cf Inflow=2.23 cfs 0.097 af
Primary=0.05 cfs 0.097 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.097 af

Pond P8: P8 Gravel Wetland Peak Elev=1,928.96' Storage=5,814 cf Inflow=2.34 cfs 0.101 af
Primary=0.03 cfs 0.101 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.101 af

Pond P9: Lot R51 Soil Filter Peak Elev=1,943.60' Storage=1,495 cf Inflow=1.18 cfs 0.056 af
Primary=0.04 cfs 0.056 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.056 af

Pond RG 1: Medium Rain Garden Peak Elev=1,952.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 10: Small Rain Garden Peak Elev=1,932.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 11: Small Rain Garden Peak Elev=2,071.72' Storage=542 cf Inflow=0.47 cfs 0.023 af
Primary=0.03 cfs 0.023 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.023 af

Pond RG 12: Medium Rain Garden Peak Elev=2,071.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 13: Medium Rain Garden Peak Elev=2,071.64' Storage=864 cf Inflow=0.67 cfs 0.033 af
Primary=0.03 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.033 af

Pond RG 14: Large Rain Garden Peak Elev=1,951.68' Storage=1,095 cf Inflow=0.81 cfs 0.040 af
Primary=0.03 cfs 0.040 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.040 af

Pond RG 15: Large Rain Garden Peak Elev=1,951.68' Storage=1,095 cf Inflow=0.81 cfs 0.040 af
Primary=0.03 cfs 0.040 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.040 af

Pond RG 2: Medium Rain Garden Peak Elev=1,952.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 21: Medium Rain Garden Peak Elev=1,932.39' Storage=1,263 cf Inflow=0.98 cfs 0.047 af
Primary=0.04 cfs 0.047 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.047 af

Pond RG 3: Small Rain Garden Peak Elev=1,952.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 4: Small Rain Garden Peak Elev=1,952.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 51: Small Rain Garden Peak Elev=1,951.60' Storage=505 cf Inflow=0.44 cfs 0.021 af
Primary=0.03 cfs 0.021 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.021 af

Pond RG 52: Small Rain Garden Peak Elev=1,951.60' Storage=505 cf Inflow=0.44 cfs 0.021 af
Primary=0.03 cfs 0.021 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.021 af

Pond RG 6: Small Rain Garden Peak Elev=1,952.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 7: Small Rain Garden Peak Elev=1,952.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Pond RG 8: Small Rain Garden Peak Elev=1,951.79' Storage=565 cf Inflow=0.49 cfs 0.024 af
Primary=0.03 cfs 0.024 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.024 af

Pond RG 9: Small Rain Garden Peak Elev=1,932.15' Storage=679 cf Inflow=0.58 cfs 0.028 af
Primary=0.04 cfs 0.028 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.028 af

Link SP14: Inflow=0.67 cfs 0.050 af
Primary=0.67 cfs 0.050 af

Link SP15: Inflow=3.15 cfs 1.046 af
Primary=3.15 cfs 1.046 af

Link SP16: Inflow=0.59 cfs 0.046 af
Primary=0.59 cfs 0.046 af

Link SP17: Inflow=1.33 cfs 0.186 af
Primary=1.33 cfs 0.186 af

Link SP18: Inflow=0.21 cfs 0.010 af
Primary=0.21 cfs 0.010 af

Link SP19: Inflow=0.31 cfs 0.020 af
Primary=0.31 cfs 0.020 af

Link SP20: Inflow=6.14 cfs 1.866 af
Primary=6.14 cfs 1.866 af

Link SP21: Inflow=0.24 cfs 0.343 af
Primary=0.24 cfs 0.343 af

Link SP22: Inflow=0.17 cfs 0.011 af
Primary=0.17 cfs 0.011 af

Link SP23: Inflow=0.23 cfs 0.013 af
Primary=0.23 cfs 0.013 af

Link SP24: Inflow=7.07 cfs 0.713 af
Primary=7.07 cfs 0.713 af

Total Runoff Area = 112.414 ac Runoff Volume = 4.305 af Average Runoff Depth = 0.46"
88.30% Pervious = 99.266 ac 11.70% Impervious = 13.148 ac

Summary for Subcatchment 14: WS 14

Runoff = 0.67 cfs @ 12.10 hrs, Volume= 0.050 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.657	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.170	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.192	78	Proposed developed meadow to be treated, HSG D
0.080	71	Proposed meadow, ski trail, HSG C
0.096	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.238	78	Weighted Average
1.197		96.69% Pervious Area
0.041		3.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	81	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	28	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	44	0.5000	1.77		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	192	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	209	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	70	0.0400	4.33	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

16.0 624 Total

Summary for Subcatchment 15: WS 15

Runoff = 0.62 cfs @ 12.08 hrs, Volume= 0.045 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.017	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.776	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.042	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.096	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.306	76	Weighted Average
1.289		98.70% Pervious Area
0.017		1.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0700	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	69	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	44	0.5000	4.95		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	170	0.1500	12.39	148.70	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	43	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
13.7	624	Total			

Summary for Subcatchment 15A: WS 15A

Runoff = 0.97 cfs @ 11.95 hrs, Volume= 0.048 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.051	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.047	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.092	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.595	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.785	73	Weighted Average
1.646		92.21% Pervious Area
0.139		7.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	72	0.0800	1.94		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
2.3	155	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	149	0.1200	11.08	133.00	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050 Mountain streams w/large boulders
3.1	376	Total			

Summary for Subcatchment 15B: WS 15B

Runoff = 0.77 cfs @ 12.11 hrs, Volume= 0.072 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.387	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.966	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.064	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.056	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.129	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.647	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.249	71	Weighted Average
3.193		98.28% Pervious Area
0.056		1.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
7.0	502	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	87	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
14.3	689	Total			

Summary for Subcatchment 15C: WS 15C

Runoff = 0.28 cfs @ 11.93 hrs, Volume= 0.013 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.010	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.037	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.352	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.103	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.503	73	Weighted Average
0.466		92.64% Pervious Area
0.037		7.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	66	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	41	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	137	0.2000	23.50	94.01	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.2	244	Total			

Summary for Subcatchment 15C1: WS 15C1

Runoff = 0.06 cfs @ 12.08 hrs, Volume= 0.005 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.234	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.234	71	Weighted Average
0.234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	41	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	141	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.1	241	Total			

Summary for Subcatchment 15D: WS 15D

Runoff = 0.15 cfs @ 12.00 hrs, Volume= 0.009 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.004	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.038	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.366	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.408	71	Weighted Average
0.408		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	43	0.5100	0.12		**Sheet Flow,** n= 0.800 P2= 2.40"
0.2	68	0.5100	5.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.2	111	Total			

Summary for Subcatchment 15E: WS 15E

Runoff = 1.09 cfs @ 11.92 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.012	70	Existing Woods, Good, HSG C
0.018	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.054	98	Proposed impervious to be treated, HSG C
0.217	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.031	71	Proposed developed meadow to be treated, HSG C
0.379	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.711	85	Weighted Average
0.440		61.88% Pervious Area
0.271		38.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	302	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.8	427	Total			

Summary for Subcatchment 15F: WS 15F

Runoff = 1.51 cfs @ 12.02 hrs, Volume= 0.087 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.323	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.324	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.001	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.019	71	Proposed developed meadow, non-grazed, HSG C
0.593	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.011	71	Proposed meadow, ski trail, HSG C
0.852	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.145	78	Weighted Average
2.144		99.95% Pervious Area
0.001		0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	83	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	401	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
9.2	584	Total			

Summary for Subcatchment 15G: WS 15G

Runoff = 0.46 cfs @ 12.08 hrs, Volume= 0.038 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.096	71	Existing meadow, non-grazed, HSG C
0.002	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.411	70	Existing Woods, Good, HSG C
0.082	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.098	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.362	71	Proposed developed meadow, non-grazed, HSG C
0.172	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.566	72	Weighted Average
1.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	54	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	21	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	544	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
12.5	619	Total			

Summary for Subcatchment 16: WS 16

Runoff = 0.59 cfs @ 12.11 hrs, Volume= 0.046 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.084	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.001	71	Existing meadow, non-grazed, HSG C
0.027	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.098	70	Existing Woods, Good, HSG C
0.543	77	Existing Woods, Good, HSG D
0.054	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.023	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.162	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.273	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.345	76	Weighted Average
1.238		92.04% Pervious Area
0.107		7.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	26	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	25	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	119	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	139	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	161	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	70	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
16.1	640	Total			

Summary for Subcatchment 17: WS 17

Runoff = 1.31 cfs @ 11.94 hrs, Volume= 0.057 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.166	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.127	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.551	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.047	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.202	71	Proposed developed meadow, non-grazed, HSG C
0.076	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.216	80	Weighted Average
1.003		82.48% Pervious Area
0.213		17.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	23	0.1700	2.09		**Sheet Flow,** n= 0.011 P2= 2.40"
0.4	53	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	126	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	202	0.1400	15.06	75.28	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.030
2.9	404	Total			

Summary for Subcatchment 17A: WS 17A

Runoff = 2.14 cfs @ 12.04 hrs, Volume= 0.129 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.152	70	Existing Woods, Good, HSG C
0.011	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.821	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.586	71	Proposed developed meadow to be treated, HSG C
0.260	78	Proposed developed meadow to be treated, HSG D
0.350	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.201	78	Weighted Average
2.380		74.35% Pervious Area
0.821		25.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	73	0.1200	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.8	94	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	268	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.5	435	Total			

Summary for Subcatchment 17B: WS 17B

Runoff = 2.23 cfs @ 11.94 hrs, Volume= 0.097 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.127	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.326	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.617	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.336	71	Proposed developed meadow to be treated, HSG C
0.006	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.412	78	Weighted Average
1.795		74.42% Pervious Area
0.617		25.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	35	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	542	0.1300	5.65	16.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.4	677	Total			

Summary for Subcatchment 17C: WS 17C

Runoff = 0.65 cfs @ 12.00 hrs, Volume= 0.038 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.057	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.462	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.139	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.651	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.420	73	Weighted Average
1.281		90.21% Pervious Area
0.139		9.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	55	0.1900	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.5	164	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	246	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
6.9	465	Total			

Summary for Subcatchment 17D: WS 17D

Runoff = 1.38 cfs @ 11.93 hrs, Volume= 0.062 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.030	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.315	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.315	98	Proposed impervious to be treated, HSG C
0.058	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.065	71	Proposed developed meadow to be treated, HSG C
0.011	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.794	76	Weighted Average
1.421		79.21% Pervious Area
0.373		20.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1200	2.44		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	46	0.1200	7.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	709	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.5	855	Total			

Summary for Subcatchment 17E: WS 17E

Runoff = 3.51 cfs @ 11.98 hrs, Volume= 0.169 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.001	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.414	98	Proposed impervious to be treated, HSG C
0.574	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.285	71	Proposed developed meadow to be treated, HSG C
1.456	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.004	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.734	84	Weighted Average
1.746		63.86% Pervious Area
0.988		36.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
5.1	1,621	0.1000	5.30	21.20	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
6.3	1,721	Total			

Summary for Subcatchment 17F: WS 17F

Runoff = 1.90 cfs @ 12.19 hrs, Volume= 0.183 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.041	71	Existing meadow, non-grazed, HSG C
0.804	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.114	71	Proposed developed meadow to be treated, HSG C
1.841	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.893	77	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.9	182	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	241	0.0300	9.10	36.41	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
8.5	424	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.7	899	Total			

Summary for Subcatchment 18: WS 18

Runoff = 0.21 cfs @ 11.96 hrs, Volume= 0.010 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.065	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.207	80	Weighted Average
0.186		89.86% Pervious Area
0.021		10.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	65	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	92	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
4.2	157	Total			

Summary for Subcatchment 19: WS 19

Runoff = 0.31 cfs @ 12.05 hrs, Volume= 0.020 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.008	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.016	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.113	70	Existing Woods, Good, HSG C
0.312	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.016	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.047	71	Proposed developed meadow, non-grazed, HSG C
0.073	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.585	76	Weighted Average
0.561		95.90% Pervious Area
0.024		4.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
4.2	253	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	455	Total			

Summary for Subcatchment 20: WS 20

Runoff = 1.06 cfs @ 11.99 hrs, Volume= 0.053 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.802	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.013	98	Untreated proposed impervious, HSG C
0.027	98	Untreated proposed impervious, HSG D
0.021	71	Proposed developed meadow, non-grazed, HSG C
0.379	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.316	78	Weighted Average
1.239		94.15% Pervious Area
0.077		5.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	34	0.0600	1.49		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	18	0.3900	4.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	166	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	144	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	64	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
6.0	426	Total			

Summary for Subcatchment 20A: WS 20A

Runoff = 0.70 cfs @ 11.95 hrs, Volume= 0.034 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.287	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.141	98	Untreated proposed impervious, HSG C
0.006	98	Untreated proposed impervious, HSG D
0.600	71	Proposed developed meadow, non-grazed, HSG C
0.008	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.118	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.160	74	Weighted Average
1.013		87.33% Pervious Area
0.147		12.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	47	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	116	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	32	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	330	Total			

Summary for Subcatchment 20B: WS 20B

Runoff = 0.35 cfs @ 11.99 hrs, Volume= 0.019 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.026	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.098	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.054	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.182	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.370	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.730	73	Weighted Average
0.676		92.60% Pervious Area
0.054		7.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	76	0.2000	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	140	0.1300	13.74	228.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=3.50' Z= 1.0 & 0.0 '/' Top.W=6.50' n= 0.050 Mountain streams w/large boulders
5.5	216	Total			

Summary for Subcatchment 20C: WS 20C

Runoff = 2.22 cfs @ 11.95 hrs, Volume= 0.097 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.757	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.923	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.681	83	Weighted Average
0.924		54.97% Pervious Area
0.757		45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0800	2.07		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	43	0.0800	5.74		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	307	0.0060	1.83	1.44	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
3.7	450	Total			

Summary for Subcatchment 20D: WS 20D

Runoff = 2.65 cfs @ 12.28 hrs, Volume= 0.334 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.530	71	Existing meadow, non-grazed, HSG C
2.720	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.679	70	Existing Woods, Good, HSG C
1.134	77	Existing Woods, Good, HSG D
0.241	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.064	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.002	71	Proposed developed meadow, non-grazed, HSG C
0.586	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.496	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.452	74	Weighted Average
11.388		99.44% Pervious Area
0.064		0.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.8	470	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	338	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	665	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.1	274	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	79	0.0300	2.72	8.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch

28.2 1,926 Total

Summary for Subcatchment 20E: WS 20E

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.061	71	Existing meadow, non-grazed, HSG C
0.148	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.327	70	Existing Woods, Good, HSG C
0.356	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.426	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.398	73	Weighted Average
1.398		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.6	149	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	133	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
13.8	331	Total			

Summary for Subcatchment 21: WS 21

Runoff = 0.19 cfs @ 12.05 hrs, Volume= 0.012 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.020	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.005	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.035	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.206	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.266	79	Weighted Average
0.246		92.48% Pervious Area
0.020		7.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	55	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	17	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	170	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.6	242	Total			

Summary for Subcatchment 21A: WS 21A

Runoff = 6.37 cfs @ 11.95 hrs, Volume= 0.285 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.034	70	Existing Woods, Good, HSG C
0.923	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.063	98	Proposed impervious to be treated, HSG C
1.013	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.085	71	Proposed developed meadow to be treated, HSG C
3.163	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.281	82	Weighted Average
4.205		79.63% Pervious Area
1.076		20.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	89	0.0900	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	42	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	99	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	222	0.0500	3.51	10.52	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.1	50	0.0500	16.10	50.59	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.2	91	0.1500	6.07	18.22	**Trap/Vee/Rect Channel Flow,**

Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00'
n= 0.069 Riprap, 6-inch

4.1	593	Total

Summary for Subcatchment 21B: WS 21B

Runoff = 0.34 cfs @ 12.26 hrs, Volume= 0.046 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.052	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.046	70	Existing Woods, Good, HSG C
0.012	77	Existing Woods, Good, HSG D
0.211	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.050	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.165	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.497	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.098	71	Weighted Average
2.048		97.62% Pervious Area
0.050		2.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	161	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.7	363	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.2	624	Total			

Summary for Subcatchment 21C: WS 21C

Runoff = 3.53 cfs @ 12.64 hrs, Volume= 0.675 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
1.021	98	Untreated existing impervious, HSG C
0.399	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
3.515	71	Existing meadow, non-grazed, HSG C
3.201	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
8.408	70	Existing Woods, Good, HSG C
3.898	77	Existing Woods, Good, HSG D
0.185	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.179	71	Proposed developed meadow, non-grazed, HSG C
0.459	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
21.265	75	Weighted Average
19.845		93.32% Pervious Area
1.420		6.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	17	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	146	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	259	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	218	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	279	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	186	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	90	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	201	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	256	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	195	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	80	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	334	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	115	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	113	0.1900	22.91	91.63	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
53.8	2,762	Total			

Summary for Subcatchment 21D: WS 21D

Runoff = 2.14 cfs @ 11.95 hrs, Volume= 0.108 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.045	71	Existing meadow, non-grazed, HSG C
0.036	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.309	70	Existing Woods, Good, HSG C
0.065	77	Existing Woods, Good, HSG D
0.280	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.280	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.418	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.433	72	Weighted Average
4.153		93.68% Pervious Area
0.280		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	40	0.1000	1.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	43	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	134	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	457	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
2.9	674	Total			

Summary for Subcatchment 21E: WS 21E

Runoff = 2.34 cfs @ 11.92 hrs, Volume= 0.101 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.763	98	Proposed impervious to be treated, HSG C
0.001	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.794	71	Proposed developed meadow to be treated, HSG C
0.018	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.628	84	Weighted Average
0.864		53.07% Pervious Area
0.764		46.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	26	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	327	0.3500	13.96	10.96	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.7	453	Total			

Summary for Subcatchment 22: WS 22

Runoff = 0.17 cfs @ 12.05 hrs, Volume= 0.011 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.025	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.115	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.085	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.225	80	Weighted Average
0.200		88.89% Pervious Area
0.025		11.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.1	47	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	125	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
12.3	208	Total			

Summary for Subcatchment 23: WS 23

Runoff = 0.23 cfs @ 12.03 hrs, Volume= 0.013 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.004	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.123	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.114	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.280	80	Weighted Average
0.241		86.07% Pervious Area
0.039		13.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	67	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	118	0.0700	13.90	55.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.2	285	Total			

Summary for Subcatchment 23A: WS 23A

Runoff = 2.26 cfs @ 11.91 hrs, Volume= 0.096 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.057	98	Proposed impervious to be treated, HSG C
0.510	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.027	71	Proposed developed meadow to be treated, HSG C
0.673	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.267	87	Weighted Average
0.700		55.25% Pervious Area
0.567		44.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0400	1.22		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	53	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	281	0.0600	5.78	4.54	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.3	362	Total			

Summary for Subcatchment 23B: WS 23B

Runoff = 0.30 cfs @ 12.08 hrs, Volume= 0.027 af, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.306	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.509	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.032	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.215	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.094	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.201	71	Weighted Average
1.201		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	40	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	229	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	98	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	467	Total			

Summary for Subcatchment 24: WS 24

Runoff = 7.02 cfs @ 12.15 hrs, Volume= 0.591 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.502	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.614	71	Existing meadow, non-grazed, HSG C
6.291	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.411	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.079	98	Untreated proposed impervious, HSG D
0.065	71	Proposed developed meadow, non-grazed, HSG C
0.643	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.002	78	Proposed developed meadow to be treated, HSG D
0.027	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
14.634	78	Weighted Average
14.053		96.03% Pervious Area
0.581		3.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	10	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	210	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	333	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	221	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	317	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	305	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	241	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	138	0.2000	21.99	65.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	224	0.1500	19.05	57.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.1	118	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	167	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	89	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	105	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
19.4	2,578	Total			

Summary for Subcatchment R1: R1

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R10: R10

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R11: R11

Runoff = 0.47 cfs @ 11.98 hrs, Volume= 0.023 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.127	98	Proposed impervious to be treated, HSG C
0.033	98	Proposed impervious to be treated, HSG D
0.182	71	Proposed developed meadow to be treated, HSG C
0.047	78	Proposed developed meadow to be treated, HSG D
0.389	83	Weighted Average
0.229		58.87% Pervious Area
0.160		41.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R12: R12

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R13: R13

Runoff = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R14: R14

Runoff = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R15: R15

Runoff = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R2: R2

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R21: R21

Runoff = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af, Depth= 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R3: R3

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R4: R4

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R51: R51

Runoff = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R52: R52

Runoff = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R6: R6

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R7: R7

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.002	98	Proposed impervious to be treated, HSG C
0.159	98	Proposed impervious to be treated, HSG D
0.003	71	Proposed developed meadow to be treated, HSG C
0.227	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R8: R8

Runoff = 0.49 cfs @ 11.98 hrs, Volume= 0.024 af, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.131	98	Proposed impervious to be treated, HSG C
0.037	98	Proposed impervious to be treated, HSG D
0.187	71	Proposed developed meadow to be treated, HSG C
0.052	78	Proposed developed meadow to be treated, HSG D
0.407	83	Weighted Average
0.239		58.72% Pervious Area
0.168		41.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R9: R9

Runoff = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.00"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 6R: stream

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 0.50" for 1-Year event
Inflow = 2.61 cfs @ 12.10 hrs, Volume= 0.953 af
Outflow = 2.53 cfs @ 12.13 hrs, Volume= 0.953 af, Atten= 3%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.92 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 1.10 fps, Avg. Travel Time= 4.2 min

Peak Storage= 186 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.21' , Surface Width= 3.41'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 132.62 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 280.0' Slope= 0.1643 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,769.00'

Summary for Reach 8R: ditch to stream

Inflow Area = 17.262 ac, 16.17% Impervious, Inflow Depth > 0.55" for 1-Year event
Inflow = 1.89 cfs @ 12.02 hrs, Volume= 0.784 af
Outflow = 1.81 cfs @ 12.09 hrs, Volume= 0.784 af, Atten= 4%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.64 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.13 fps, Avg. Travel Time= 7.0 min

Peak Storage= 241 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.16' , Surface Width= 3.32'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 144.00 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 475.0' Slope= 0.1937 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,818.00'

Summary for Reach 9R: stream

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 6.03 cfs @ 12.48 hrs, Volume= 1.813 af
Outflow = 6.02 cfs @ 12.51 hrs, Volume= 1.813 af, Atten= 0%, Lag= 2.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.83 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.18 fps, Avg. Travel Time= 4.7 min

Peak Storage= 412 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.33' , Surface Width= 4.15'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 139.42 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 330.0' Slope= 0.1424 '/'
Inlet Invert= 1,787.00', Outlet Invert= 1,740.00'

Summary for Reach 10R: stream

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 5.96 cfs @ 12.47 hrs, Volume= 1.779 af
Outflow = 5.95 cfs @ 12.49 hrs, Volume= 1.779 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.10 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.27 fps, Avg. Travel Time= 1.8 min

Peak Storage= 163 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.31' , Surface Width= 4.11'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 152.96 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 140.0' Slope= 0.1714 '/'
Inlet Invert= 1,814.00', Outlet Invert= 1,790.00'

Summary for Reach 11R: stream

Inflow Area = 39.194 ac, 8.55% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 5.49 cfs @ 12.46 hrs, Volume= 1.354 af
Outflow = 5.48 cfs @ 12.49 hrs, Volume= 1.354 af, Atten= 0%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.40 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.55 fps, Avg. Travel Time= 3.2 min

Peak Storage= 305 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.31' , Surface Width= 3.61'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 145.10 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 300.0' Slope= 0.1967 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,851.00'

Summary for Reach 14R: drainage ditch

Inflow Area = 3.365 ac, 18.42% Impervious, Inflow Depth = 0.45" for 1-Year event
Inflow = 0.54 cfs @ 12.08 hrs, Volume= 0.127 af
Outflow = 0.46 cfs @ 12.24 hrs, Volume= 0.127 af, Atten= 15%, Lag= 9.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.82 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 13.1 min

Peak Storage= 153 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.11' , Surface Width= 2.46'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 106.43 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 600.0' Slope= 0.1500 '/'
Inlet Invert= 2,060.00', Outlet Invert= 1,970.00'

Summary for Reach 114R: dead end channel

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 0.49" for 1-Year event
Inflow = 2.71 cfs @ 12.13 hrs, Volume= 1.001 af
Outflow = 2.65 cfs @ 12.16 hrs, Volume= 1.001 af, Atten= 2%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.17 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.56 fps, Avg. Travel Time= 4.3 min

Peak Storage= 209 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.17' , Surface Width= 3.33'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 200.37 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 400.0' Slope= 0.3750 '/'
Inlet Invert= 1,750.00', Outlet Invert= 1,600.00'

Summary for Reach 115R: stream

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 5.81 cfs @ 12.47 hrs, Volume= 1.722 af
Outflow = 5.80 cfs @ 12.48 hrs, Volume= 1.722 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.08 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 1.7 min

Peak Storage= 149 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 3.68'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 128.34 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 130.0' Slope= 0.1538 '/'
Inlet Invert= 1,844.00', Outlet Invert= 1,824.00'

Summary for Pond 2P: Culvert 7C Driveway

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 6.03 cfs @ 12.48 hrs, Volume= 1.813 af
Primary = 6.03 cfs @ 12.48 hrs, Volume= 1.813 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 3P: Culvert 7B -Road A

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 5.96 cfs @ 12.47 hrs, Volume= 1.779 af
Primary = 5.96 cfs @ 12.47 hrs, Volume= 1.779 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 4P: trail culvert

Inflow Area = 1.420 ac, 9.79% Impervious, Inflow Depth = 0.32" for 1-Year event
Inflow = 0.65 cfs @ 12.00 hrs, Volume= 0.038 af
Primary = 0.65 cfs @ 12.00 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 5P: Culvert 7A

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 5.81 cfs @ 12.47 hrs, Volume= 1.722 af
Primary = 5.81 cfs @ 12.47 hrs, Volume= 1.722 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 7P: Culvert 6A

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 0.50" for 1-Year event
Inflow = 2.61 cfs @ 12.10 hrs, Volume= 0.953 af
Primary = 2.61 cfs @ 12.10 hrs, Volume= 0.953 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 8P: new 36

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 7.07 cfs @ 12.15 hrs, Volume= 0.713 af
Outflow = 7.07 cfs @ 12.15 hrs, Volume= 0.713 af, Atten= 0%, Lag= 0.0 min
Primary = 7.07 cfs @ 12.15 hrs, Volume= 0.713 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.00' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=7.03 cfs @ 12.15 hrs HW=1.00' (Free Discharge)
1=Culvert (Inlet Controls 7.03 cfs @ 3.41 fps)

Summary for Pond 9P: new 36

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 0.48" for 1-Year event
Inflow = 3.15 cfs @ 12.15 hrs, Volume= 1.046 af
Outflow = 3.15 cfs @ 12.15 hrs, Volume= 1.046 af, Atten= 0%, Lag= 0.0 min
Primary = 3.15 cfs @ 12.15 hrs, Volume= 1.046 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 0.66' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -1.05' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=3.13 cfs @ 12.15 hrs HW=0.65' (Free Discharge)
1=Culvert (Inlet Controls 3.13 cfs @ 2.75 fps)

Summary for Pond 13P: Culvert 6B

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 0.49" for 1-Year event
Inflow = 2.71 cfs @ 12.13 hrs, Volume= 1.001 af
Primary = 2.71 cfs @ 12.13 hrs, Volume= 1.001 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 39P: Trail culvert

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 0.04 cfs @ 14.80 hrs, Volume= 0.056 af
Primary = 0.04 cfs @ 14.80 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 40P: Bypass culvert

Inflow Area = 3.632 ac, 15.23% Impervious, Inflow Depth = 0.62" for 1-Year event
Inflow = 1.59 cfs @ 12.02 hrs, Volume= 0.189 af
Primary = 1.59 cfs @ 12.02 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 108P: new 36

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 6.14 cfs @ 12.51 hrs, Volume= 1.866 af
Outflow = 6.14 cfs @ 12.51 hrs, Volume= 1.866 af, Atten= 0%, Lag= 0.0 min
Primary = 6.14 cfs @ 12.51 hrs, Volume= 1.866 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,740.93' @ 12.51 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,740.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,740.00' / 1,738.00' S= 0.0286 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 7.07 sf

Primary OutFlow Max=6.13 cfs @ 12.51 hrs HW=1,740.93' (Free Discharge)
1=Culvert (Inlet Controls 6.13 cfs @ 3.28 fps)

Summary for Pond P10: P10 Gravel Wetland

Inflow Area = 7.627 ac, 12.95% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 4.17 cfs @ 12.00 hrs, Volume= 0.352 af
Outflow = 0.08 cfs @ 24.10 hrs, Volume= 0.352 af, Atten= 98%, Lag= 726.2 min
Primary = 0.08 cfs @ 24.10 hrs, Volume= 0.352 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,977.66' Surf.Area= 6,880 sf Storage= 7,320 cf
Peak Elev= 1,979.42' @ 24.10 hrs Surf.Area= 8,944 sf Storage= 19,422 cf (12,102 cf above start)

Plug-Flow detention time= 2,958.5 min calculated for 0.184 af (52% of inflow)
Center-of-Mass det. time= 1,797.5 min (2,672.2 - 874.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,975.00'	10,093 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,975.00'	10,093 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,979.50'	52,918 cf	**Ponding (Irregular)**Listed below (Recalc)
		73,103 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,979.50	9,252	409.5	0	0	9,252
1,981.00	11,159	437.8	15,286	15,286	11,263
1,983.00	13,000	460.0	24,136	39,422	13,086
1,984.00	14,000	490.0	13,497	52,918	15,403

Device	Routing	Invert	Outlet Devices
#1	Primary	1,977.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,977.00' / 1,976.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,977.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,982.40'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,983.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.08 cfs @ 24.10 hrs HW=1,979.42' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.08 cfs of 14.21 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 6.26 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,977.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P17: P17 Gravel Wetland

Inflow Area = 3.475 ac, 32.52% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 3.57 cfs @ 11.94 hrs, Volume= 0.159 af
Outflow = 0.06 cfs @ 19.22 hrs, Volume= 0.159 af, Atten= 98%, Lag= 436.7 min
Primary = 0.06 cfs @ 19.22 hrs, Volume= 0.159 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,874.66' Surf.Area= 4,642 sf Storage= 4,939 cf
Peak Elev= 1,875.76' @ 19.22 hrs Surf.Area= 5,551 sf Storage= 9,456 cf (4,517 cf above start)

Plug-Flow detention time= 1,975.1 min calculated for 0.046 af (29% of inflow)
Center-of-Mass det. time= 924.8 min (1,788.9 - 864.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,872.00'	6,972 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,872.00'	6,921 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,876.50'	13,117 cf	**Ponding (Irregular)**Listed below (Recalc)
		27,010 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,322	197.0	0.0	0	0	2,322
1,875.00	2,322	197.0	40.0	2,786	2,786	2,913
1,876.50	3,286	231.9	100.0	4,185	6,972	4,147

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,320	184.0	0.0	0	0	2,320
1,875.00	2,320	184.0	40.0	2,784	2,784	2,872
1,876.50	3,220	216.4	100.0	4,137	6,921	3,947

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.50	7,778	425.6	0	0	7,778
1,878.00	9,749	453.2	13,117	13,117	9,818

Device	Routing	Invert	Outlet Devices
#1	Primary	1,874.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,874.00' / 1,873.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,874.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,877.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,878.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.06 cfs @ 19.22 hrs HW=1,875.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.06 cfs of 10.47 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 4.91 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,874.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P2: Townhomes 3-6 Gravel Wetland

Inflow Area = 3.201 ac, 25.65% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 2.14 cfs @ 12.04 hrs, Volume= 0.129 af
Outflow = 0.04 cfs @ 24.05 hrs, Volume= 0.129 af, Atten= 98%, Lag= 720.7 min
Primary = 0.04 cfs @ 24.05 hrs, Volume= 0.129 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,746.66' Surf.Area= 3,892 sf Storage= 4,141 cf
Peak Elev= 1,747.80' @ 24.05 hrs Surf.Area= 4,766 sf Storage= 8,108 cf (3,967 cf above start)

Plug-Flow detention time= 2,539.6 min calculated for 0.034 af (26% of inflow)
Center-of-Mass det. time= 1,197.0 min (2,077.9 - 880.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,744.00'	5,915 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,744.00'	5,845 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,748.50'	11,773 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,949	182.2	0.0	0	0	1,949
1,747.00	1,949	182.2	40.0	2,339	2,339	2,496
1,748.50	2,848	217.0	100.0	3,577	5,915	3,641

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,943	166.6	0.0	0	0	1,943
1,747.00	1,943	166.6	40.0	2,332	2,332	2,443
1,748.50	2,765	198.6	100.0	3,513	5,845	3,412

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.50	6,943	396.4	0	0	6,943
1,750.00	8,791	424.7	11,773	11,773	8,892

Device	Routing	Invert	Outlet Devices
#1	Primary	1,746.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,746.00' / 1,745.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,746.66'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,749.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,749.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.04 cfs @ 24.05 hrs HW=1,747.80' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 10.71 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 5.02 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,746.66' (Free Discharge)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P3: P3 Gravel Wetland

Inflow Area = 7.379 ac, 15.26% Impervious, Inflow Depth = 0.54" for 1-Year event
Inflow = 6.39 cfs @ 11.95 hrs, Volume= 0.332 af
Outflow = 0.08 cfs @ 24.03 hrs, Volume= 0.332 af, Atten= 99%, Lag= 724.7 min
Primary = 0.08 cfs @ 24.03 hrs, Volume= 0.332 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.66' Surf.Area= 6,574 sf Storage= 6,995 cf
Peak Elev= 1,752.38' @ 24.03 hrs Surf.Area= 8,536 sf Storage= 18,259 cf (11,265 cf above start)

Plug-Flow detention time= 2,831.0 min calculated for 0.171 af (52% of inflow)
Center-of-Mass det. time= 1,705.0 min (2,572.8 - 867.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,748.00'	9,662 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,748.00'	9,662 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,752.50'	61,673 cf	**Ponding (Irregular)** Listed below (Recalc)
		80,998 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,752.50	10,828	401.5	0	0	10,828
1,754.00	14,121	764.7	18,657	18,657	44,545
1,756.50	20,489	895.0	43,016	61,673	61,879

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,749.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,750.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,754.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,755.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.08 cfs @ 24.03 hrs HW=1,752.38' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.08 cfs of 14.01 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 6.19 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P4: P4 VSF

Inflow Area = 2.468 ac, 22.97% Impervious, Inflow Depth = 0.59" for 1-Year event
Inflow = 2.29 cfs @ 11.91 hrs, Volume= 0.122 af
Outflow = 0.06 cfs @ 16.26 hrs, Volume= 0.122 af, Atten= 97%, Lag= 261.1 min
Primary = 0.06 cfs @ 16.26 hrs, Volume= 0.122 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,799.33' Surf.Area= 2,868 sf Storage= 379 cf
Peak Elev= 1,802.03' @ 16.26 hrs Surf.Area= 2,894 sf Storage= 3,538 cf (3,159 cf above start)

Plug-Flow detention time= 772.7 min calculated for 0.114 af (93% of inflow)
Center-of-Mass det. time= 674.9 min (1,527.2 - 852.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,799.00'	36,922 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,799.00	2,868	235.8	0.0	0	0	2,868
1,800.50	2,868	235.8	40.0	1,721	1,721	3,222
1,802.00	2,868	235.8	40.0	1,721	3,442	3,575
1,804.00	4,635	289.1	100.0	7,433	10,874	5,863
1,806.00	6,481	326.2	100.0	11,065	21,939	7,781
1,808.00	8,550	363.4	100.0	14,983	36,922	9,935

Device	Routing	Invert	Outlet Devices
#1	Primary	1,799.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,799.00' / 1,797.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,799.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,805.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,805.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.06 cfs @ 16.26 hrs HW=1,802.03' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.06 cfs of 7.24 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 7.84 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,799.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P5: Roads A and F Soil Filter

Inflow Area = 2.412 ac, 25.58% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 2.23 cfs @ 11.94 hrs, Volume= 0.097 af
Outflow = 0.05 cfs @ 16.60 hrs, Volume= 0.097 af, Atten= 98%, Lag= 279.9 min
Primary = 0.05 cfs @ 16.60 hrs, Volume= 0.097 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,831.33' Surf.Area= 2,838 sf Storage= 375 cf
Peak Elev= 1,833.41' @ 16.60 hrs Surf.Area= 2,838 sf Storage= 2,734 cf (2,359 cf above start)

Plug-Flow detention time= 706.9 min calculated for 0.089 af (91% of inflow)
Center-of-Mass det. time= 594.3 min (1,467.7 - 873.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,831.00'	21,966 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,831.00	2,838	261.4	0.0	0	0	2,838
1,832.50	2,838	261.4	40.0	1,703	1,703	3,230
1,834.00	2,838	261.4	40.0	1,703	3,406	3,622
1,836.00	4,520	299.0	100.0	7,293	10,699	5,390
1,838.00	6,826	390.0	100.0	11,267	21,966	10,427

Device	Routing	Invert	Outlet Devices
#1	Primary	1,830.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,830.00' / 1,828.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,831.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,836.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,837.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 16.60 hrs HW=1,833.41' (Free Discharge)
└**1=Culvert** (Passes 0.05 cfs of 10.95 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 6.86 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,831.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P8: P8 Gravel Wetland

Inflow Area = 1.628 ac, 46.93% Impervious, Inflow Depth = 0.74" for 1-Year event
Inflow = 2.34 cfs @ 11.92 hrs, Volume= 0.101 af
Outflow = 0.03 cfs @ 20.13 hrs, Volume= 0.101 af, Atten= 99%, Lag= 492.6 min
Primary = 0.03 cfs @ 20.13 hrs, Volume= 0.101 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,927.66' Surf.Area= 2,506 sf Storage= 2,666 cf
Peak Elev= 1,928.96' @ 20.13 hrs Surf.Area= 3,391 sf Storage= 5,814 cf (3,148 cf above start)

Plug-Flow detention time= 2,355.1 min calculated for 0.040 af (39% of inflow)
Center-of-Mass det. time= 1,262.5 min (2,108.6 - 846.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,925.00'	3,942 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,925.00'	3,871 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,929.50'	15,570 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,382 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	152.0	0.0	0	0	1,253
1,928.00	1,253	152.0	40.0	1,504	1,504	1,709
1,929.50	2,029	192.4	100.0	2,438	3,942	2,846

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	134.0	0.0	0	0	1,253
1,928.00	1,253	134.0	40.0	1,504	1,504	1,655
1,929.50	1,927	165.0	100.0	2,367	3,871	2,426

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,929.50	4,972	320.0	0	0	4,972
1,931.00	6,477	348.7	8,562	8,562	6,579
1,932.00	7,552	367.5	7,008	15,570	7,709

Device	Routing	Invert	Outlet Devices
#1	Primary	1,927.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,927.00' / 1,926.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,927.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,930.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,930.50'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64

2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.03 cfs @ 20.13 hrs HW=1,928.96' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.03 cfs of 11.74 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.39 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,927.66' (Free Discharge)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P9: Lot R51 Soil Filter

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 0.60" for 1-Year event
Inflow = 1.18 cfs @ 11.93 hrs, Volume= 0.056 af
Outflow = 0.04 cfs @ 14.80 hrs, Volume= 0.056 af, Atten= 97%, Lag= 172.0 min
Primary = 0.04 cfs @ 14.80 hrs, Volume= 0.056 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,941.33' Surf.Area= 1,440 sf Storage= 190 cf
Peak Elev= 1,943.60' @ 14.80 hrs Surf.Area= 1,440 sf Storage= 1,495 cf (1,305 cf above start)

Plug-Flow detention time= 533.0 min calculated for 0.052 af (92% of inflow)
Center-of-Mass det. time= 445.8 min (1,299.8 - 854.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,941.00'	22,064 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,941.00	1,440	179.7	0.0	0	0	1,440
1,942.50	1,440	179.7	40.0	864	864	1,710
1,944.00	1,440	179.7	40.0	864	1,728	1,979
1,946.00	2,631	217.4	100.0	4,012	5,740	3,235
1,948.00	4,049	255.1	100.0	6,629	12,369	4,729
1,950.00	5,693	292.8	100.0	9,695	22,064	6,462

Device	Routing	Invert	Outlet Devices
#1	Primary	1,940.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,940.00' / 1,938.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,941.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,941.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,945.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,945.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.04 cfs @ 14.80 hrs HW=1,943.60' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 19.24 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.18 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,941.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 1: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,952.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=1,952.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 10: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,932.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,932.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 11: Small Rain Garden

Inflow Area = 0.389 ac, 41.13% Impervious, Inflow Depth = 0.70" for 1-Year event
Inflow = 0.47 cfs @ 11.98 hrs, Volume= 0.023 af
Outflow = 0.03 cfs @ 12.98 hrs, Volume= 0.023 af, Atten= 93%, Lag= 60.3 min
Primary = 0.03 cfs @ 12.98 hrs, Volume= 0.023 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,071.72' @ 12.98 hrs Surf.Area= 790 sf Storage= 542 cf (438 cf above start)

Plug-Flow detention time= 272.6 min calculated for 0.020 af (89% of inflow)
Center-of-Mass det. time= 182.6 min (1,037.0 - 854.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	790	0.0	0	0
2,071.50	790	40.0	474	474
2,073.00	790	40.0	474	948
2,074.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 12.98 hrs HW=2,071.72' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.60 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.58 fps)
  │ └**3=Exfiltration** (Passes 0.03 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 12: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,071.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=2,071.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
  │ └**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 13: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.67 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af, Atten= 96%, Lag= 119.1 min
Primary = 0.03 cfs @ 13.97 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,071.64' @ 13.97 hrs Surf.Area= 1,321 sf Storage= 864 cf (690 cf above start)

Plug-Flow detention time= 432.6 min calculated for 0.029 af (88% of inflow)
Center-of-Mass det. time= 315.8 min (1,183.3 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.97 hrs HW=2,071.64' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.03 cfs of 6.32 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.41 fps)
  │ └─**3=Exfiltration** (Passes 0.03 cfs of 0.09 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 14: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af
Outflow = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af, Atten= 96%, Lag= 165.1 min
Primary = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,951.68' @ 14.73 hrs Surf.Area= 1,630 sf Storage= 1,095 cf (880 cf above start)

Plug-Flow detention time= 528.4 min calculated for 0.035 af (88% of inflow)
Center-of-Mass det. time= 398.9 min (1,266.4 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 14.73 hrs HW=1,951.68' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.48 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.51 fps)
  │ └**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 15: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.81 cfs @ 11.98 hrs, Volume= 0.040 af
Outflow = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af, Atten= 96%, Lag= 165.1 min
Primary = 0.03 cfs @ 14.73 hrs, Volume= 0.040 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,951.68' @ 14.73 hrs Surf.Area= 1,630 sf Storage= 1,095 cf (880 cf above start)

Plug-Flow detention time= 528.4 min calculated for 0.035 af (88% of inflow)
Center-of-Mass det. time= 398.9 min (1,266.4 - 867.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 14.73 hrs HW=1,951.68' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.03 cfs of 6.48 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.51 fps)
  │ └─**3=Exfiltration** (Passes 0.03 cfs of 0.11 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 2: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,952.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=1,952.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 21: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.98 cfs @ 11.98 hrs, Volume= 0.047 af
Outflow = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af, Atten= 96%, Lag= 119.3 min
Primary = 0.04 cfs @ 13.96 hrs, Volume= 0.047 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,932.39' @ 13.96 hrs Surf.Area= 1,321 sf Storage= 1,263 cf (1,089 cf above start)

Plug-Flow detention time= 477.0 min calculated for 0.043 af (91% of inflow)
Center-of-Mass det. time= 385.7 min (1,231.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	1,321	0.0	0	0
1,931.50	1,321	40.0	793	793
1,933.00	1,321	40.0	793	1,585
1,934.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.96 hrs HW=1,932.39' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.61 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.84 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 3: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,952.15' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 4: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,952.15' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 51: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af
Outflow = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af, Atten= 93%, Lag= 60.3 min
Primary = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,951.60' @ 12.99 hrs Surf.Area= 790 sf Storage= 505 cf (400 cf above start)

Plug-Flow detention time= 270.0 min calculated for 0.019 af (89% of inflow)
Center-of-Mass det. time= 175.3 min (1,034.0 - 858.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 12.99 hrs HW=1,951.60' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.18 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.33 fps)
  │ └**3=Exfiltration** (Passes 0.03 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 52: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 0.44 cfs @ 11.98 hrs, Volume= 0.021 af
Outflow = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af, Atten= 93%, Lag= 60.3 min
Primary = 0.03 cfs @ 12.99 hrs, Volume= 0.021 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,951.60' @ 12.99 hrs Surf.Area= 790 sf Storage= 505 cf (400 cf above start)

Plug-Flow detention time= 270.0 min calculated for 0.019 af (89% of inflow)
Center-of-Mass det. time= 175.3 min (1,034.0 - 858.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 12.99 hrs HW=1,951.60' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.03 cfs of 6.18 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.33 fps)
  │ └─**3=Exfiltration** (Passes 0.03 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 6: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,952.15' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 7: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,952.15' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 8: Small Rain Garden

Inflow Area = 0.407 ac, 41.28% Impervious, Inflow Depth = 0.70" for 1-Year event
Inflow = 0.49 cfs @ 11.98 hrs, Volume= 0.024 af
Outflow = 0.03 cfs @ 13.01 hrs, Volume= 0.024 af, Atten= 94%, Lag= 61.9 min
Primary = 0.03 cfs @ 13.01 hrs, Volume= 0.024 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,951.79' @ 13.01 hrs Surf.Area= 790 sf Storage= 565 cf (461 cf above start)

Plug-Flow detention time= 273.3 min calculated for 0.021 af (90% of inflow)
Center-of-Mass det. time= 187.4 min (1,041.8 - 854.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.03 cfs @ 13.01 hrs HW=1,951.79' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 6.84 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 5.73 fps)
  │ └**3=Exfiltration** (Passes 0.03 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 9: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 0.58 cfs @ 11.98 hrs, Volume= 0.028 af
Outflow = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af, Atten= 94%, Lag= 60.9 min
Primary = 0.04 cfs @ 12.99 hrs, Volume= 0.028 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,932.15' @ 12.99 hrs Surf.Area= 790 sf Storage= 679 cf (575 cf above start)

Plug-Flow detention time= 283.8 min calculated for 0.025 af (91% of inflow)
Center-of-Mass det. time= 207.0 min (1,048.6 - 841.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 12.99 hrs HW=1,932.15' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 7.94 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.42 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Link SP14:

Inflow Area = 1.238 ac, 3.31% Impervious, Inflow Depth = 0.48" for 1-Year event
Inflow = 0.67 cfs @ 12.10 hrs, Volume= 0.050 af
Primary = 0.67 cfs @ 12.10 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 0.48" for 1-Year event
Inflow = 3.15 cfs @ 12.15 hrs, Volume= 1.046 af
Primary = 3.15 cfs @ 12.15 hrs, Volume= 1.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 1.345 ac, 7.96% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 0.59 cfs @ 12.11 hrs, Volume= 0.046 af
Primary = 0.59 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 4.417 ac, 23.41% Impervious, Inflow Depth = 0.51" for 1-Year event
Inflow = 1.33 cfs @ 11.94 hrs, Volume= 0.186 af
Primary = 1.33 cfs @ 11.94 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 0.207 ac, 10.14% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.21 cfs @ 11.96 hrs, Volume= 0.010 af
Primary = 0.21 cfs @ 11.96 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 0.585 ac, 4.10% Impervious, Inflow Depth = 0.41" for 1-Year event
Inflow = 0.31 cfs @ 12.05 hrs, Volume= 0.020 af
Primary = 0.31 cfs @ 12.05 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 0.42" for 1-Year event
Inflow = 6.14 cfs @ 12.51 hrs, Volume= 1.866 af
Primary = 6.14 cfs @ 12.51 hrs, Volume= 1.866 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 7.645 ac, 14.99% Impervious, Inflow Depth > 0.54" for 1-Year event
Inflow = 0.24 cfs @ 12.05 hrs, Volume= 0.343 af
Primary = 0.24 cfs @ 12.05 hrs, Volume= 0.343 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 0.225 ac, 11.11% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.17 cfs @ 12.05 hrs, Volume= 0.011 af
Primary = 0.17 cfs @ 12.05 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 0.280 ac, 13.93% Impervious, Inflow Depth = 0.56" for 1-Year event
Inflow = 0.23 cfs @ 12.03 hrs, Volume= 0.013 af
Primary = 0.23 cfs @ 12.03 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 0.50" for 1-Year event
Inflow = 7.07 cfs @ 12.15 hrs, Volume= 0.713 af
Primary = 7.07 cfs @ 12.15 hrs, Volume= 0.713 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14: WS 14 Runoff Area=1.238 ac 3.31% Impervious Runoff Depth=0.72"
Flow Length=624' Tc=16.0 min CN=78 Runoff=1.06 cfs 0.075 af

Subcatchment15: WS 15 Runoff Area=1.306 ac 1.30% Impervious Runoff Depth=0.63"
Flow Length=624' Tc=13.7 min CN=76 Runoff=1.03 cfs 0.069 af

Subcatchment15A: WS 15A Runoff Area=1.785 ac 7.79% Impervious Runoff Depth=0.51"
Flow Length=376' Tc=3.1 min CN=73 Runoff=1.69 cfs 0.077 af

Subcatchment15B: WS 15B Runoff Area=3.249 ac 1.72% Impervious Runoff Depth=0.44"
Flow Length=689' Tc=14.3 min CN=71 Runoff=1.54 cfs 0.120 af

Subcatchment15C: WS 15C Runoff Area=0.503 ac 7.36% Impervious Runoff Depth=0.51"
Flow Length=244' Tc=1.2 min CN=73 Runoff=0.48 cfs 0.022 af

Subcatchment15C1: WS 15C1 Runoff Area=0.234 ac 0.00% Impervious Runoff Depth=0.44"
Flow Length=241' Tc=12.1 min CN=71 Runoff=0.12 cfs 0.009 af

Subcatchment15D: WS 15D Runoff Area=0.408 ac 0.00% Impervious Runoff Depth=0.44"
Flow Length=111' Slope=0.5100 '/' Tc=6.2 min CN=71 Runoff=0.28 cfs 0.015 af

Subcatchment15E: WS 15E Runoff Area=0.711 ac 38.12% Impervious Runoff Depth=1.10"
Flow Length=427' Tc=1.8 min CN=85 Runoff=1.50 cfs 0.065 af

Subcatchment15F: WS 15F Runoff Area=2.145 ac 0.05% Impervious Runoff Depth=0.72"
Flow Length=584' Slope=0.1400 '/' Tc=9.2 min CN=78 Runoff=2.35 cfs 0.129 af

Subcatchment15G: WS 15G Runoff Area=1.566 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=619' Tc=12.5 min CN=72 Runoff=0.89 cfs 0.062 af

Subcatchment16: WS 16 Runoff Area=1.345 ac 7.96% Impervious Runoff Depth=0.63"
Flow Length=640' Tc=16.1 min CN=76 Runoff=0.97 cfs 0.071 af

Subcatchment17: WS 17 Runoff Area=1.216 ac 17.52% Impervious Runoff Depth=0.82"
Flow Length=404' Tc=2.9 min CN=80 Runoff=1.94 cfs 0.083 af

Subcatchment17A: WS 17A Runoff Area=3.201 ac 25.65% Impervious Runoff Depth=0.72"
Flow Length=435' Tc=10.5 min CN=78 Runoff=3.33 cfs 0.193 af

Subcatchment17B: WS 17B Runoff Area=2.412 ac 25.58% Impervious Runoff Depth=0.72"
Flow Length=677' Tc=2.4 min CN=78 Runoff=3.40 cfs 0.145 af

Subcatchment17C: WS 17C Runoff Area=1.420 ac 9.79% Impervious Runoff Depth=0.51"
Flow Length=465' Tc=6.9 min CN=73 Runoff=1.14 cfs 0.061 af

Subcatchment17D: WS 17D Runoff Area=1.794 ac 20.79% Impervious Runoff Depth=0.63"
Flow Length=855' Tc=1.5 min CN=76 Runoff=2.16 cfs 0.095 af

Subcatchment17E: WS 17E Runoff Area=2.734 ac 36.14% Impervious Runoff Depth=1.04"
Flow Length=1,721' Tc=6.3 min CN=84 Runoff=4.91 cfs 0.237 af

Subcatchment17F: WS 17F Runoff Area=4.893 ac 0.00% Impervious Runoff Depth=0.68"
Flow Length=899' Tc=22.7 min CN=77 Runoff=3.11 cfs 0.277 af

Subcatchment18: WS 18 Runoff Area=0.207 ac 10.14% Impervious Runoff Depth=0.82"
Flow Length=157' Tc=4.2 min CN=80 Runoff=0.32 cfs 0.014 af

Subcatchment19: WS 19 Runoff Area=0.585 ac 4.10% Impervious Runoff Depth=0.63"
Flow Length=455' Tc=11.5 min CN=76 Runoff=0.50 cfs 0.031 af

Subcatchment20: WS 20 Runoff Area=1.316 ac 5.85% Impervious Runoff Depth=0.72"
Flow Length=426' Tc=6.0 min CN=78 Runoff=1.63 cfs 0.079 af

Subcatchment20A: WS 20A Runoff Area=1.160 ac 12.67% Impervious Runoff Depth=0.55"
Flow Length=330' Tc=3.3 min CN=74 Runoff=1.18 cfs 0.053 af

Subcatchment20B: WS 20B Runoff Area=0.730 ac 7.40% Impervious Runoff Depth=0.51"
Flow Length=216' Tc=5.5 min CN=73 Runoff=0.62 cfs 0.031 af

Subcatchment20C: WS 20C Runoff Area=1.681 ac 45.03% Impervious Runoff Depth=0.98"
Flow Length=450' Tc=3.7 min CN=83 Runoff=3.15 cfs 0.137 af

Subcatchment20D: WS 20D Runoff Area=11.452 ac 0.56% Impervious Runoff Depth=0.55"
Flow Length=1,926' Tc=28.2 min CN=74 Runoff=4.79 cfs 0.528 af

Subcatchment20E: WS 20E Runoff Area=1.398 ac 0.00% Impervious Runoff Depth=0.51"
Flow Length=331' Tc=13.8 min CN=73 Runoff=0.83 cfs 0.060 af

Subcatchment21: WS 21 Runoff Area=0.266 ac 7.52% Impervious Runoff Depth=0.77"
Flow Length=242' Tc=11.6 min CN=79 Runoff=0.29 cfs 0.017 af

Subcatchment21A: WS 21A Runoff Area=5.281 ac 20.37% Impervious Runoff Depth=0.93"
Flow Length=593' Tc=4.1 min CN=82 Runoff=9.17 cfs 0.407 af

Subcatchment21B: WS 21B Runoff Area=2.098 ac 2.38% Impervious Runoff Depth=0.44"
Flow Length=624' Tc=25.2 min CN=71 Runoff=0.68 cfs 0.077 af

Subcatchment21C: WS 21C Runoff Area=21.265 ac 6.68% Impervious Runoff Depth=0.59"
Flow Length=2,762' Tc=53.8 min CN=75 Runoff=6.14 cfs 1.051 af

Subcatchment21D: WS 21D Runoff Area=4.433 ac 6.32% Impervious Runoff Depth=0.48"
Flow Length=674' Tc=2.9 min CN=72 Runoff=3.85 cfs 0.176 af

Subcatchment21E: WS 21E Runoff Area=1.628 ac 46.93% Impervious Runoff Depth=1.04"
Flow Length=453' Tc=1.7 min CN=84 Runoff=3.27 cfs 0.141 af

Subcatchment22: WS 22 Runoff Area=0.225 ac 11.11% Impervious Runoff Depth=0.82"
Flow Length=208' Tc=12.3 min CN=80 Runoff=0.25 cfs 0.015 af

Subcatchment23: WS 23 Runoff Area=0.280 ac 13.93% Impervious Runoff Depth=0.82"
Flow Length=285' Tc=10.2 min CN=80 Runoff=0.34 cfs 0.019 af

Subcatchment23A: WS 23A Runoff Area=1.267 ac 44.75% Impervious Runoff Depth=1.23"
Flow Length=362' Tc=1.3 min CN=87 Runoff=3.05 cfs 0.130 af

Subcatchment23B: WS 23B Runoff Area=1.201 ac 0.00% Impervious Runoff Depth=0.44"
Flow Length=467' Tc=12.6 min CN=71 Runoff=0.61 cfs 0.044 af

Subcatchment24: WS 24 Runoff Area=14.634 ac 3.97% Impervious Runoff Depth=0.72"
Flow Length=2,578' Tc=19.4 min CN=78 Runoff=11.14 cfs 0.883 af

SubcatchmentR1: R1 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR10: R10 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR11: R11 Runoff Area=0.389 ac 41.13% Impervious Runoff Depth=0.98"
Tc=6.0 min CN=83 Runoff=0.66 cfs 0.032 af

SubcatchmentR12: R12 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR13: R13 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.00 cfs 0.048 af

SubcatchmentR14: R14 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.21 cfs 0.058 af

SubcatchmentR15: R15 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=80 Runoff=1.21 cfs 0.058 af

SubcatchmentR2: R2 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR21: R21 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.10"
Tc=6.0 min CN=85 Runoff=1.34 cfs 0.065 af

SubcatchmentR3: R3 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR4: R4 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

SubcatchmentR51: R51 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=0.63 cfs 0.030 af

SubcatchmentR52: R52 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=0.63 cfs 0.030 af

Subcatchment R6: R6 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

Subcatchment R7: R7 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

Subcatchment R8: R8 Runoff Area=0.407 ac 41.28% Impervious Runoff Depth=0.98"
Tc=6.0 min CN=83 Runoff=0.70 cfs 0.033 af

Subcatchment R9: R9 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=86 Runoff=0.78 cfs 0.038 af

Reach 6R: stream Avg. Flow Depth=0.29' Max Vel=4.77 fps Inflow=4.55 cfs 1.407 af
n=0.050 L=280.0' S=0.1643 '/' Capacity=132.62 cfs Outflow=4.47 cfs 1.407 af

Reach 8R: ditch to stream Avg. Flow Depth=0.22' Max Vel=4.36 fps Inflow=3.07 cfs 1.142 af
n=0.050 L=475.0' S=0.1937 '/' Capacity=144.00 cfs Outflow=2.96 cfs 1.142 af

Reach 9R: stream Avg. Flow Depth=0.45' Max Vel=5.82 fps Inflow=10.40 cfs 2.764 af
n=0.050 L=330.0' S=0.1424 '/' Capacity=139.42 cfs Outflow=10.39 cfs 2.764 af

Reach 10R: stream Avg. Flow Depth=0.42' Max Vel=6.16 fps Inflow=10.28 cfs 2.710 af
n=0.050 L=140.0' S=0.1714 '/' Capacity=152.96 cfs Outflow=10.27 cfs 2.710 af

Reach 11R: stream Avg. Flow Depth=0.43' Max Vel=6.52 fps Inflow=9.54 cfs 2.068 af
n=0.050 L=300.0' S=0.1967 '/' Capacity=145.10 cfs Outflow=9.52 cfs 2.068 af

Reach 14R: drainage ditch Avg. Flow Depth=0.17' Max Vel=2.26 fps Inflow=0.99 cfs 0.191 af
n=0.069 L=600.0' S=0.1500 '/' Capacity=106.43 cfs Outflow=0.86 cfs 0.191 af

Reach 114R: dead end channel Avg. Flow Depth=0.23' Max Vel=6.29 fps Inflow=4.75 cfs 1.484 af
n=0.050 L=400.0' S=0.3750 '/' Capacity=200.37 cfs Outflow=4.67 cfs 1.484 af

Reach 115R: stream Avg. Flow Depth=0.47' Max Vel=6.10 fps Inflow=10.06 cfs 2.618 af
n=0.050 L=130.0' S=0.1538 '/' Capacity=128.34 cfs Outflow=10.04 cfs 2.618 af

Pond 2P: Culvert 7C Driveway Inflow=10.40 cfs 2.764 af
Primary=10.40 cfs 2.764 af

Pond 3P: Culvert 7B -Road A Inflow=10.28 cfs 2.710 af
Primary=10.28 cfs 2.710 af

Pond 4P: trail culvert Inflow=1.14 cfs 0.061 af
Primary=1.14 cfs 0.061 af

Pond 5P: Culvert 7A Inflow=10.06 cfs 2.618 af
Primary=10.06 cfs 2.618 af

Pond 7P: Culvert 6A Inflow=4.55 cfs 1.407 af
Primary=4.55 cfs 1.407 af

Pond 8P: new 36 Peak Elev=1.29' Inflow=11.20 cfs 1.057 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0400 '/' Outflow=11.20 cfs 1.057 af

Pond 9P: new 36 Peak Elev=0.88' Inflow=5.56 cfs 1.553 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0150 '/' Outflow=5.56 cfs 1.553 af

Pond 13P: Culvert 6B Inflow=4.75 cfs 1.484 af
Primary=4.75 cfs 1.484 af

Pond 39P: Trail culvert Inflow=0.05 cfs 0.080 af
Primary=0.05 cfs 0.080 af

Pond 40P: Bypass culvert Inflow=2.45 cfs 0.270 af
Primary=2.45 cfs 0.270 af

Pond 108P: new 36 Peak Elev=1,741.25' Inflow=10.57 cfs 2.843 af
36.0" Round Culvert n=0.025 L=70.0' S=0.0286 '/' Outflow=10.57 cfs 2.843 af

Pond P10: P10 Gravel Wetland Peak Elev=1,980.09' Storage=25,811 cf Inflow=6.22 cfs 0.513 af
Primary=0.09 cfs 0.511 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.511 af

Pond P17: P17 Gravel Wetland Peak Elev=1,876.21' Storage=12,040 cf Inflow=5.27 cfs 0.232 af
Primary=0.07 cfs 0.232 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.232 af

Pond P2: Townhomes 3-6 Gravel Wetland Peak Elev=1,748.28' Storage=10,551 cf Inflow=3.33 cfs 0.193 af
Primary=0.05 cfs 0.193 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.193 af

Pond P3: P3 Gravel Wetland Peak Elev=1,752.94' Storage=24,335 cf Inflow=9.25 cfs 0.484 af
Primary=0.09 cfs 0.483 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.483 af

Pond P4: P4 VSF Peak Elev=1,802.60' Storage=5,293 cf Inflow=3.19 cfs 0.174 af
Primary=0.07 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.174 af

Pond P5: Roads A and F Soil Filter Peak Elev=1,834.30' Storage=4,277 cf Inflow=3.40 cfs 0.145 af
Primary=0.06 cfs 0.145 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.145 af

Pond P8: P8 Gravel Wetland Peak Elev=1,929.37' Storage=7,321 cf Inflow=3.27 cfs 0.141 af
Primary=0.03 cfs 0.141 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.141 af

Pond P9: Lot R51 Soil Filter Peak Elev=1,944.32' Storage=2,218 cf Inflow=1.71 cfs 0.080 af
Primary=0.05 cfs 0.080 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.080 af

Pond RG 1: Medium Rain Garden Peak Elev=1,953.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 10: Small Rain Garden Peak Elev=1,932.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 11: Small Rain Garden Peak Elev=2,072.44' Storage=770 cf Inflow=0.66 cfs 0.032 af
Primary=0.04 cfs 0.032 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.032 af

Pond RG 12: Medium Rain Garden Peak Elev=2,072.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 13: Medium Rain Garden Peak Elev=2,072.41' Storage=1,273 cf Inflow=1.00 cfs 0.048 af
Primary=0.04 cfs 0.048 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.048 af

Pond RG 14: Large Rain Garden Peak Elev=1,952.47' Storage=1,612 cf Inflow=1.21 cfs 0.058 af
Primary=0.04 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.058 af

Pond RG 15: Large Rain Garden Peak Elev=1,952.47' Storage=1,612 cf Inflow=1.21 cfs 0.058 af
Primary=0.04 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.058 af

Pond RG 2: Medium Rain Garden Peak Elev=1,953.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 21: Medium Rain Garden Peak Elev=1,933.14' Storage=1,776 cf Inflow=1.34 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond RG 3: Small Rain Garden Peak Elev=1,952.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 4: Small Rain Garden Peak Elev=1,952.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 51: Small Rain Garden Peak Elev=1,952.29' Storage=725 cf Inflow=0.63 cfs 0.030 af
Primary=0.04 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.030 af

Pond RG 52: Small Rain Garden Peak Elev=1,952.29' Storage=725 cf Inflow=0.63 cfs 0.030 af
Primary=0.04 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.030 af

Pond RG 6: Small Rain Garden Peak Elev=1,952.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 7: Small Rain Garden Peak Elev=1,952.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Pond RG 8: Small Rain Garden Peak Elev=1,952.55' Storage=805 cf Inflow=0.70 cfs 0.033 af
Primary=0.04 cfs 0.033 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.033 af

Pond RG 9: Small Rain Garden Peak Elev=1,932.96' Storage=936 cf Inflow=0.78 cfs 0.038 af
Primary=0.04 cfs 0.038 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.038 af

Link SP14: Inflow=1.06 cfs 0.075 af
Primary=1.06 cfs 0.075 af

Link SP15: Inflow=5.56 cfs 1.553 af
Primary=5.56 cfs 1.553 af

Link SP16: Inflow=0.97 cfs 0.071 af
Primary=0.97 cfs 0.071 af

Link SP17: Inflow=1.96 cfs 0.276 af
Primary=1.96 cfs 0.276 af

Link SP18: Inflow=0.32 cfs 0.014 af
Primary=0.32 cfs 0.014 af

Link SP19: Inflow=0.50 cfs 0.031 af
Primary=0.50 cfs 0.031 af

Link SP20: Inflow=10.57 cfs 2.843 af
Primary=10.57 cfs 2.843 af

Link SP21: Inflow=0.35 cfs 0.500 af
Primary=0.35 cfs 0.500 af

Link SP22: Inflow=0.25 cfs 0.015 af
Primary=0.25 cfs 0.015 af

Link SP23: Inflow=0.34 cfs 0.019 af
Primary=0.34 cfs 0.019 af

Link SP24: Inflow=11.20 cfs 1.057 af
Primary=11.20 cfs 1.057 af

Total Runoff Area = 112.414 ac Runoff Volume = 6.458 af Average Runoff Depth = 0.69"
88.30% Pervious = 99.266 ac 11.70% Impervious = 13.148 ac

Summary for Subcatchment 14: WS 14

Runoff = 1.06 cfs @ 12.10 hrs, Volume= 0.075 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.657	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.170	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.192	78	Proposed developed meadow to be treated, HSG D
0.080	71	Proposed meadow, ski trail, HSG C
0.096	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.238	78	Weighted Average
1.197		96.69% Pervious Area
0.041		3.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	81	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	28	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	44	0.5000	1.77		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	192	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	209	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	70	0.0400	4.33	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

16.0 624 Total

Summary for Subcatchment 15: WS 15

Runoff = 1.03 cfs @ 12.07 hrs, Volume= 0.069 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.017	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.776	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.042	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.096	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.306	76	Weighted Average
1.289		98.70% Pervious Area
0.017		1.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0700	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	69	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	44	0.5000	4.95		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	170	0.1500	12.39	148.70	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	43	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
13.7	624	Total			

Summary for Subcatchment 15A: WS 15A

Runoff = 1.69 cfs @ 11.95 hrs, Volume= 0.077 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.051	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.047	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.092	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.595	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.785	73	Weighted Average
1.646		92.21% Pervious Area
0.139		7.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	72	0.0800	1.94		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
2.3	155	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	149	0.1200	11.08	133.00	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050 Mountain streams w/large boulders
3.1	376	Total			

Summary for Subcatchment 15B: WS 15B

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 0.120 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.387	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.966	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.064	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.056	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.129	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.647	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.249	71	Weighted Average
3.193		98.28% Pervious Area
0.056		1.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
7.0	502	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	87	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
14.3	689	Total			

Summary for Subcatchment 15C: WS 15C

Runoff = 0.48 cfs @ 11.92 hrs, Volume= 0.022 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.010	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.037	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.352	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.103	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.503	73	Weighted Average
0.466		92.64% Pervious Area
0.037		7.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	66	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	41	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	137	0.2000	23.50	94.01	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.2	244	Total			

Summary for Subcatchment 15C1: WS 15C1

Runoff = 0.12 cfs @ 12.06 hrs, Volume= 0.009 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.234	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.234	71	Weighted Average
0.234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	41	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	141	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.1	241	Total			

Summary for Subcatchment 15D: WS 15D

Runoff = 0.28 cfs @ 11.99 hrs, Volume= 0.015 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.004	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.038	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.366	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.408	71	Weighted Average
0.408		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	43	0.5100	0.12		**Sheet Flow,** n= 0.800 P2= 2.40"
0.2	68	0.5100	5.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.2	111	Total			

Summary for Subcatchment 15E: WS 15E

Runoff = 1.50 cfs @ 11.92 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.012	70	Existing Woods, Good, HSG C
0.018	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.054	98	Proposed impervious to be treated, HSG C
0.217	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.031	71	Proposed developed meadow to be treated, HSG C
0.379	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.711	85	Weighted Average
0.440		61.88% Pervious Area
0.271		38.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	302	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.8	427	Total			

Summary for Subcatchment 15F: WS 15F

Runoff = 2.35 cfs @ 12.02 hrs, Volume= 0.129 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.323	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.324	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.001	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.019	71	Proposed developed meadow, non-grazed, HSG C
0.593	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.011	71	Proposed meadow, ski trail, HSG C
0.852	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.145	78	Weighted Average
2.144		99.95% Pervious Area
0.001		0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	83	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	401	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
9.2	584	Total			

Summary for Subcatchment 15G: WS 15G

Runoff = 0.89 cfs @ 12.07 hrs, Volume= 0.062 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.096	71	Existing meadow, non-grazed, HSG C
0.002	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.411	70	Existing Woods, Good, HSG C
0.082	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.098	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.362	71	Proposed developed meadow, non-grazed, HSG C
0.172	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.566	72	Weighted Average
1.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	54	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	21	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	544	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
12.5	619	Total			

Summary for Subcatchment 16: WS 16

Runoff = 0.97 cfs @ 12.10 hrs, Volume= 0.071 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.084	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.001	71	Existing meadow, non-grazed, HSG C
0.027	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.098	70	Existing Woods, Good, HSG C
0.543	77	Existing Woods, Good, HSG D
0.054	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.023	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.162	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.273	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.345	76	Weighted Average
1.238		92.04% Pervious Area
0.107		7.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	26	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	25	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	119	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	139	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	161	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	70	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
16.1	640	Total			

Summary for Subcatchment 17: WS 17

Runoff = 1.94 cfs @ 11.94 hrs, Volume= 0.083 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.166	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.127	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.551	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.047	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.202	71	Proposed developed meadow, non-grazed, HSG C
0.076	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.216	80	Weighted Average
1.003		82.48% Pervious Area
0.213		17.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	23	0.1700	2.09		**Sheet Flow,** n= 0.011 P2= 2.40"
0.4	53	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	126	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	202	0.1400	15.06	75.28	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.030
2.9	404	Total			

Summary for Subcatchment 17A: WS 17A

Runoff = 3.33 cfs @ 12.03 hrs, Volume= 0.193 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.152	70	Existing Woods, Good, HSG C
0.011	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.821	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.586	71	Proposed developed meadow to be treated, HSG C
0.260	78	Proposed developed meadow to be treated, HSG D
0.350	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.201	78	Weighted Average
2.380		74.35% Pervious Area
0.821		25.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	73	0.1200	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.8	94	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	268	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.5	435	Total			

Summary for Subcatchment 17B: WS 17B

Runoff = 3.40 cfs @ 11.94 hrs, Volume= 0.145 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.127	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.326	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.617	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.336	71	Proposed developed meadow to be treated, HSG C
0.006	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.412	78	Weighted Average
1.795		74.42% Pervious Area
0.617		25.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	35	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	542	0.1300	5.65	16.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.4	677	Total			

Summary for Subcatchment 17C: WS 17C

Runoff = 1.14 cfs @ 12.00 hrs, Volume= 0.061 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.057	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.462	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.139	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.651	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.420	73	Weighted Average
1.281		90.21% Pervious Area
0.139		9.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	55	0.1900	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.5	164	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	246	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
6.9	465	Total			

Summary for Subcatchment 17D: WS 17D

Runoff = 2.16 cfs @ 11.92 hrs, Volume= 0.095 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.030	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.315	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.315	98	Proposed impervious to be treated, HSG C
0.058	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.065	71	Proposed developed meadow to be treated, HSG C
0.011	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.794	76	Weighted Average
1.421		79.21% Pervious Area
0.373		20.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1200	2.44		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	46	0.1200	7.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	709	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.5	855	Total			

Summary for Subcatchment 17E: WS 17E

Runoff = 4.91 cfs @ 11.98 hrs, Volume= 0.237 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.001	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.414	98	Proposed impervious to be treated, HSG C
0.574	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.285	71	Proposed developed meadow to be treated, HSG C
1.456	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.004	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.734	84	Weighted Average
1.746		63.86% Pervious Area
0.988		36.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
5.1	1,621	0.1000	5.30	21.20	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
6.3	1,721	Total			

Summary for Subcatchment 17F: WS 17F

Runoff = 3.11 cfs @ 12.18 hrs, Volume= 0.277 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.041	71	Existing meadow, non-grazed, HSG C
0.804	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.114	71	Proposed developed meadow to be treated, HSG C
1.841	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.893	77	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.9	182	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	241	0.0300	9.10	36.41	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
8.5	424	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.7	899	Total			

Summary for Subcatchment 18: WS 18

Runoff = 0.32 cfs @ 11.95 hrs, Volume= 0.014 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.065	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.207	80	Weighted Average
0.186		89.86% Pervious Area
0.021		10.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	65	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	92	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
4.2	157	Total			

Summary for Subcatchment 19: WS 19

Runoff = 0.50 cfs @ 12.05 hrs, Volume= 0.031 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.008	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.016	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.113	70	Existing Woods, Good, HSG C
0.312	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.016	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.047	71	Proposed developed meadow, non-grazed, HSG C
0.073	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.585	76	Weighted Average
0.561		95.90% Pervious Area
0.024		4.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
4.2	253	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	455	Total			

Summary for Subcatchment 20: WS 20

Runoff = 1.63 cfs @ 11.98 hrs, Volume= 0.079 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.802	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.013	98	Untreated proposed impervious, HSG C
0.027	98	Untreated proposed impervious, HSG D
0.021	71	Proposed developed meadow, non-grazed, HSG C
0.379	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.316	78	Weighted Average
1.239		94.15% Pervious Area
0.077		5.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	34	0.0600	1.49		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	18	0.3900	4.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	166	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	144	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	64	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
6.0	426	Total			

Summary for Subcatchment 20A: WS 20A

Runoff = 1.18 cfs @ 11.95 hrs, Volume= 0.053 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.287	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.141	98	Untreated proposed impervious, HSG C
0.006	98	Untreated proposed impervious, HSG D
0.600	71	Proposed developed meadow, non-grazed, HSG C
0.008	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.118	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.160	74	Weighted Average
1.013		87.33% Pervious Area
0.147		12.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	47	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	116	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	32	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	330	Total			

Summary for Subcatchment 20B: WS 20B

Runoff = 0.62 cfs @ 11.98 hrs, Volume= 0.031 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.026	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.098	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.054	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.182	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.370	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.730	73	Weighted Average
0.676		92.60% Pervious Area
0.054		7.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	76	0.2000	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	140	0.1300	13.74	228.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=3.50' Z= 1.0 & 0.0 '/' Top.W=6.50' n= 0.050 Mountain streams w/large boulders
5.5	216	Total			

Summary for Subcatchment 20C: WS 20C

Runoff = 3.15 cfs @ 11.95 hrs, Volume= 0.137 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.757	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.923	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.681	83	Weighted Average
0.924		54.97% Pervious Area
0.757		45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0800	2.07		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	43	0.0800	5.74		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	307	0.0060	1.83	1.44	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
3.7	450	Total			

Summary for Subcatchment 20D: WS 20D

Runoff = 4.79 cfs @ 12.26 hrs, Volume= 0.528 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.530	71	Existing meadow, non-grazed, HSG C
2.720	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.679	70	Existing Woods, Good, HSG C
1.134	77	Existing Woods, Good, HSG D
0.241	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.064	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.002	71	Proposed developed meadow, non-grazed, HSG C
0.586	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.496	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.452	74	Weighted Average
11.388		99.44% Pervious Area
0.064		0.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.8	470	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	338	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	665	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.1	274	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	79	0.0300	2.72	8.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch

28.2 1,926 Total

Summary for Subcatchment 20E: WS 20E

Runoff = 0.83 cfs @ 12.08 hrs, Volume= 0.060 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.061	71	Existing meadow, non-grazed, HSG C
0.148	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.327	70	Existing Woods, Good, HSG C
0.356	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.426	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.398	73	Weighted Average
1.398		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.6	149	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	133	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
13.8	331	Total			

Summary for Subcatchment 21: WS 21

Runoff = 0.29 cfs @ 12.04 hrs, Volume= 0.017 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.020	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.005	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.035	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.206	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.266	79	Weighted Average
0.246		92.48% Pervious Area
0.020		7.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	55	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	17	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	170	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.6	242	Total			

Summary for Subcatchment 21A: WS 21A

Runoff = 9.17 cfs @ 11.95 hrs, Volume= 0.407 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.034	70	Existing Woods, Good, HSG C
0.923	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.063	98	Proposed impervious to be treated, HSG C
1.013	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.085	71	Proposed developed meadow to be treated, HSG C
3.163	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.281	82	Weighted Average
4.205		79.63% Pervious Area
1.076		20.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	89	0.0900	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	42	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	99	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	222	0.0500	3.51	10.52	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.1	50	0.0500	16.10	50.59	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.2	91	0.1500	6.07	18.22	**Trap/Vee/Rect Channel Flow,**

Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00'
n= 0.069 Riprap, 6-inch

4.1	593	Total

Summary for Subcatchment 21B: WS 21B

Runoff = 0.68 cfs @ 12.23 hrs, Volume= 0.077 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.052	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.046	70	Existing Woods, Good, HSG C
0.012	77	Existing Woods, Good, HSG D
0.211	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.050	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.165	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.497	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.098	71	Weighted Average
2.048		97.62% Pervious Area
0.050		2.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	161	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.7	363	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.2	624	Total			

Summary for Subcatchment 21C: WS 21C

Runoff = 6.14 cfs @ 12.61 hrs, Volume= 1.051 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
1.021	98	Untreated existing impervious, HSG C
0.399	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
3.515	71	Existing meadow, non-grazed, HSG C
3.201	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
8.408	70	Existing Woods, Good, HSG C
3.898	77	Existing Woods, Good, HSG D
0.185	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.179	71	Proposed developed meadow, non-grazed, HSG C
0.459	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
21.265	75	Weighted Average
19.845		93.32% Pervious Area
1.420		6.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	17	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	146	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	259	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	218	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	279	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	186	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	90	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	201	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	256	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	195	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	80	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	334	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	115	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	113	0.1900	22.91	91.63	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
53.8	2,762	Total			

Summary for Subcatchment 21D: WS 21D

Runoff = 3.85 cfs @ 11.95 hrs, Volume= 0.176 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.045	71	Existing meadow, non-grazed, HSG C
0.036	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.309	70	Existing Woods, Good, HSG C
0.065	77	Existing Woods, Good, HSG D
0.280	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.280	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.418	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.433	72	Weighted Average
4.153		93.68% Pervious Area
0.280		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	40	0.1000	1.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	43	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	134	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	457	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
2.9	674	Total			

Summary for Subcatchment 21E: WS 21E

Runoff = 3.27 cfs @ 11.92 hrs, Volume= 0.141 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.763	98	Proposed impervious to be treated, HSG C
0.001	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.794	71	Proposed developed meadow to be treated, HSG C
0.018	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.628	84	Weighted Average
0.864		53.07% Pervious Area
0.764		46.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	26	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	327	0.3500	13.96	10.96	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.7	453	Total			

Summary for Subcatchment 22: WS 22

Runoff = 0.25 cfs @ 12.05 hrs, Volume= 0.015 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.025	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.115	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.085	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.225	80	Weighted Average
0.200		88.89% Pervious Area
0.025		11.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.1	47	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	125	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
12.3	208	Total			

Summary for Subcatchment 23: WS 23

Runoff = 0.34 cfs @ 12.03 hrs, Volume= 0.019 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.004	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.123	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.114	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.280	80	Weighted Average
0.241		86.07% Pervious Area
0.039		13.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	67	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	118	0.0700	13.90	55.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.2	285	Total			

Summary for Subcatchment 23A: WS 23A

Runoff = 3.05 cfs @ 11.91 hrs, Volume= 0.130 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.057	98	Proposed impervious to be treated, HSG C
0.510	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.027	71	Proposed developed meadow to be treated, HSG C
0.673	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.267	87	Weighted Average
0.700		55.25% Pervious Area
0.567		44.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0400	1.22		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	53	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	281	0.0600	5.78	4.54	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.3	362	Total			

Summary for Subcatchment 23B: WS 23B

Runoff = 0.61 cfs @ 12.07 hrs, Volume= 0.044 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.306	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.509	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.032	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.215	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.094	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.201	71	Weighted Average
1.201		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	40	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	229	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	98	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	467	Total			

Summary for Subcatchment 24: WS 24

Runoff = 11.14 cfs @ 12.14 hrs, Volume= 0.883 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.502	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.614	71	Existing meadow, non-grazed, HSG C
6.291	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.411	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.079	98	Untreated proposed impervious, HSG D
0.065	71	Proposed developed meadow, non-grazed, HSG C
0.643	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.002	78	Proposed developed meadow to be treated, HSG D
0.027	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
14.634	78	Weighted Average
14.053		96.03% Pervious Area
0.581		3.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	10	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	210	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	333	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	221	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	317	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	305	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	241	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	138	0.2000	21.99	65.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	224	0.1500	19.05	57.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.1	118	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	167	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	89	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	105	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
19.4	2,578	Total			

Summary for Subcatchment R1: R1

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R10: R10

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R11: R11

Runoff = 0.66 cfs @ 11.98 hrs, Volume= 0.032 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.127	98	Proposed impervious to be treated, HSG C
0.033	98	Proposed impervious to be treated, HSG D
0.182	71	Proposed developed meadow to be treated, HSG C
0.047	78	Proposed developed meadow to be treated, HSG D
0.389	83	Weighted Average
0.229		58.87% Pervious Area
0.160		41.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R12: R12

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R13: R13

Runoff = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R14: R14

Runoff = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R15: R15

Runoff = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R2: R2

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R21: R21

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R3: R3

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R4: R4

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R51: R51

Runoff = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R52: R52

Runoff = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R6: R6

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R7: R7

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.002	98	Proposed impervious to be treated, HSG C
0.159	98	Proposed impervious to be treated, HSG D
0.003	71	Proposed developed meadow to be treated, HSG C
0.227	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R8: R8

Runoff = 0.70 cfs @ 11.98 hrs, Volume= 0.033 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.131	98	Proposed impervious to be treated, HSG C
0.037	98	Proposed impervious to be treated, HSG D
0.187	71	Proposed developed meadow to be treated, HSG C
0.052	78	Proposed developed meadow to be treated, HSG D
0.407	83	Weighted Average
0.239		58.72% Pervious Area
0.168		41.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R9: R9

Runoff = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 6R: stream

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 0.74" for 2-Year event
Inflow = 4.55 cfs @ 12.09 hrs, Volume= 1.407 af
Outflow = 4.47 cfs @ 12.11 hrs, Volume= 1.407 af, Atten= 2%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.77 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 1.19 fps, Avg. Travel Time= 3.9 min

Peak Storage= 267 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.29' , Surface Width= 3.58'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 132.62 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 280.0' Slope= 0.1643 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,769.00'

Summary for Reach 8R: ditch to stream

Inflow Area = 17.262 ac, 16.17% Impervious, Inflow Depth > 0.79" for 2-Year event
Inflow = 3.07 cfs @ 12.02 hrs, Volume= 1.142 af
Outflow = 2.96 cfs @ 12.08 hrs, Volume= 1.142 af, Atten= 3%, Lag= 3.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.36 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.21 fps, Avg. Travel Time= 6.6 min

Peak Storage= 330 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.22' , Surface Width= 3.43'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 144.00 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 475.0' Slope= 0.1937 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,818.00'

Summary for Reach 9R: stream

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.40 cfs @ 12.43 hrs, Volume= 2.764 af
Outflow = 10.39 cfs @ 12.46 hrs, Volume= 2.764 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.82 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 4.5 min

Peak Storage= 590 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.45' , Surface Width= 4.40'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 139.42 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 330.0' Slope= 0.1424 '/'
Inlet Invert= 1,787.00', Outlet Invert= 1,740.00'

Summary for Reach 10R: stream

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.28 cfs @ 12.43 hrs, Volume= 2.710 af
Outflow = 10.27 cfs @ 12.44 hrs, Volume= 2.710 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.16 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 1.8 min

Peak Storage= 233 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 4.35'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 152.96 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 140.0' Slope= 0.1714 '/'
Inlet Invert= 1,814.00', Outlet Invert= 1,790.00'

Summary for Reach 11R: stream

Inflow Area = 39.194 ac, 8.55% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 9.54 cfs @ 12.41 hrs, Volume= 2.068 af
Outflow = 9.52 cfs @ 12.44 hrs, Volume= 2.068 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.52 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.64 fps, Avg. Travel Time= 3.0 min

Peak Storage= 439 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 3.85'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 145.10 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 300.0' Slope= 0.1967 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,851.00'

Summary for Reach 14R: drainage ditch

Inflow Area = 3.365 ac, 18.42% Impervious, Inflow Depth = 0.68" for 2-Year event
Inflow = 0.99 cfs @ 12.07 hrs, Volume= 0.191 af
Outflow = 0.86 cfs @ 12.20 hrs, Volume= 0.191 af, Atten= 13%, Lag= 7.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.26 fps, Min. Travel Time= 4.4 min
Avg. Velocity = 0.81 fps, Avg. Travel Time= 12.4 min

Peak Storage= 235 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.17' , Surface Width= 2.67'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 106.43 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 600.0' Slope= 0.1500 '/'
Inlet Invert= 2,060.00', Outlet Invert= 1,970.00'

Summary for Reach 114R: dead end channel

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 0.72" for 2-Year event
Inflow = 4.75 cfs @ 12.11 hrs, Volume= 1.484 af
Outflow = 4.67 cfs @ 12.14 hrs, Volume= 1.484 af, Atten= 2%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.29 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 4.0 min

Peak Storage= 298 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.23' , Surface Width= 3.46'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 200.37 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 400.0' Slope= 0.3750 '/'
Inlet Invert= 1,750.00', Outlet Invert= 1,600.00'

Summary for Reach 115R: stream

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.06 cfs @ 12.42 hrs, Volume= 2.618 af
Outflow = 10.04 cfs @ 12.43 hrs, Volume= 2.618 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.10 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 1.7 min

Peak Storage= 214 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.47' , Surface Width= 3.95'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 128.34 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 130.0' Slope= 0.1538 '/'
Inlet Invert= 1,844.00', Outlet Invert= 1,824.00'

Summary for Pond 2P: Culvert 7C Driveway

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.40 cfs @ 12.43 hrs, Volume= 2.764 af
Primary = 10.40 cfs @ 12.43 hrs, Volume= 2.764 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 3P: Culvert 7B -Road A

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.28 cfs @ 12.43 hrs, Volume= 2.710 af
Primary = 10.28 cfs @ 12.43 hrs, Volume= 2.710 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 4P: trail culvert

Inflow Area = 1.420 ac, 9.79% Impervious, Inflow Depth = 0.51" for 2-Year event
Inflow = 1.14 cfs @ 12.00 hrs, Volume= 0.061 af
Primary = 1.14 cfs @ 12.00 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 5P: Culvert 7A

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.06 cfs @ 12.42 hrs, Volume= 2.618 af
Primary = 10.06 cfs @ 12.42 hrs, Volume= 2.618 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 7P: Culvert 6A

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 0.74" for 2-Year event
Inflow = 4.55 cfs @ 12.09 hrs, Volume= 1.407 af
Primary = 4.55 cfs @ 12.09 hrs, Volume= 1.407 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 8P: new 36

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 11.20 cfs @ 12.14 hrs, Volume= 1.057 af
Outflow = 11.20 cfs @ 12.14 hrs, Volume= 1.057 af, Atten= 0%, Lag= 0.0 min
Primary = 11.20 cfs @ 12.14 hrs, Volume= 1.057 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.29' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=11.08 cfs @ 12.14 hrs HW=1.28' (Free Discharge)
1=Culvert (Inlet Controls 11.08 cfs @ 3.85 fps)

Summary for Pond 9P: new 36

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 0.72" for 2-Year event
Inflow = 5.56 cfs @ 12.12 hrs, Volume= 1.553 af
Outflow = 5.56 cfs @ 12.12 hrs, Volume= 1.553 af, Atten= 0%, Lag= 0.0 min
Primary = 5.56 cfs @ 12.12 hrs, Volume= 1.553 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 0.88' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -1.05' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=5.51 cfs @ 12.12 hrs HW=0.88' (Free Discharge)
1=Culvert (Inlet Controls 5.51 cfs @ 3.19 fps)

Summary for Pond 13P: Culvert 6B

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 0.72" for 2-Year event
Inflow = 4.75 cfs @ 12.11 hrs, Volume= 1.484 af
Primary = 4.75 cfs @ 12.11 hrs, Volume= 1.484 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 39P: Trail culvert

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 0.86" for 2-Year event
Inflow = 0.05 cfs @ 15.52 hrs, Volume= 0.080 af
Primary = 0.05 cfs @ 15.52 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 40P: Bypass culvert

Inflow Area = 3.632 ac, 15.23% Impervious, Inflow Depth = 0.89" for 2-Year event
Inflow = 2.45 cfs @ 12.02 hrs, Volume= 0.270 af
Primary = 2.45 cfs @ 12.02 hrs, Volume= 0.270 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 108P: new 36

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.57 cfs @ 12.46 hrs, Volume= 2.843 af
Outflow = 10.57 cfs @ 12.46 hrs, Volume= 2.843 af, Atten= 0%, Lag= 0.0 min
Primary = 10.57 cfs @ 12.46 hrs, Volume= 2.843 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,741.25' @ 12.46 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,740.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,740.00' / 1,738.00' S= 0.0286 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 7.07 sf

Primary OutFlow Max=10.56 cfs @ 12.46 hrs HW=1,741.25' (Free Discharge)
1=Culvert (Inlet Controls 10.56 cfs @ 3.80 fps)

Summary for Pond P10: P10 Gravel Wetland

Inflow Area = 7.627 ac, 12.95% Impervious, Inflow Depth = 0.81" for 2-Year event
Inflow = 6.22 cfs @ 12.00 hrs, Volume= 0.513 af
Outflow = 0.09 cfs @ 24.13 hrs, Volume= 0.511 af, Atten= 99%, Lag= 727.9 min
Primary = 0.09 cfs @ 24.13 hrs, Volume= 0.511 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,977.66' Surf.Area= 6,880 sf Storage= 7,320 cf
Peak Elev= 1,980.09' @ 24.13 hrs Surf.Area= 19,051 sf Storage= 25,811 cf (18,491 cf above start)

Plug-Flow detention time= 3,219.4 min calculated for 0.343 af (67% of inflow)
Center-of-Mass det. time= 2,264.5 min (3,127.7 - 863.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,975.00'	10,093 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,975.00'	10,093 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,979.50'	52,918 cf	**Ponding (Irregular)**Listed below (Recalc)
		73,103 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,979.50	9,252	409.5	0	0	9,252
1,981.00	11,159	437.8	15,286	15,286	11,263
1,983.00	13,000	460.0	24,136	39,422	13,086
1,984.00	14,000	490.0	13,497	52,918	15,403

Device	Routing	Invert	Outlet Devices
#1	Primary	1,977.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,977.00' / 1,976.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,977.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,982.40'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,983.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 24.13 hrs HW=1,980.09' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.09 cfs of 17.25 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 7.40 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,977.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P17: P17 Gravel Wetland

Inflow Area = 3.475 ac, 32.52% Impervious, Inflow Depth = 0.80" for 2-Year event
Inflow = 5.27 cfs @ 11.94 hrs, Volume= 0.232 af
Outflow = 0.07 cfs @ 19.94 hrs, Volume= 0.232 af, Atten= 99%, Lag= 479.9 min
Primary = 0.07 cfs @ 19.94 hrs, Volume= 0.232 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,874.66' Surf.Area= 4,642 sf Storage= 4,939 cf
Peak Elev= 1,876.21' @ 19.94 hrs Surf.Area= 6,116 sf Storage= 12,040 cf (7,101 cf above start)

Plug-Flow detention time= 2,028.0 min calculated for 0.119 af (51% of inflow)
Center-of-Mass det. time= 1,185.7 min (2,037.9 - 852.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,872.00'	6,972 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,872.00'	6,921 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,876.50'	13,117 cf	**Ponding (Irregular)**Listed below (Recalc)
		27,010 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,322	197.0	0.0	0	0	2,322
1,875.00	2,322	197.0	40.0	2,786	2,786	2,913
1,876.50	3,286	231.9	100.0	4,185	6,972	4,147

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,320	184.0	0.0	0	0	2,320
1,875.00	2,320	184.0	40.0	2,784	2,784	2,872
1,876.50	3,220	216.4	100.0	4,137	6,921	3,947

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.50	7,778	425.6	0	0	7,778
1,878.00	9,749	453.2	13,117	13,117	9,818

Device	Routing	Invert	Outlet Devices
#1	Primary	1,874.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,874.00' / 1,873.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,874.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,877.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,878.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.07 cfs @ 19.94 hrs HW=1,876.21' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.07 cfs of 13.12 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 5.87 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,874.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P2: Townhomes 3-6 Gravel Wetland

Inflow Area = 3.201 ac, 25.65% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 3.33 cfs @ 12.03 hrs, Volume= 0.193 af
Outflow = 0.05 cfs @ 24.08 hrs, Volume= 0.193 af, Atten= 99%, Lag= 722.6 min
Primary = 0.05 cfs @ 24.08 hrs, Volume= 0.193 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,746.66' Surf.Area= 3,892 sf Storage= 4,141 cf
Peak Elev= 1,748.28' @ 24.08 hrs Surf.Area= 5,340 sf Storage= 10,551 cf (6,410 cf above start)

Plug-Flow detention time= 2,620.9 min calculated for 0.098 af (51% of inflow)
Center-of-Mass det. time= 1,562.2 min (2,429.5 - 867.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,744.00'	5,915 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,744.00'	5,845 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,748.50'	11,773 cf	**Ponding (Irregular)**Listed below (Recalc)
		23,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,949	182.2	0.0	0	0	1,949
1,747.00	1,949	182.2	40.0	2,339	2,339	2,496
1,748.50	2,848	217.0	100.0	3,577	5,915	3,641

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,943	166.6	0.0	0	0	1,943
1,747.00	1,943	166.6	40.0	2,332	2,332	2,443
1,748.50	2,765	198.6	100.0	3,513	5,845	3,412

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.50	6,943	396.4	0	0	6,943
1,750.00	8,791	424.7	11,773	11,773	8,892

Device	Routing	Invert	Outlet Devices
#1	Primary	1,746.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,746.00' / 1,745.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,746.66'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,749.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,749.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 24.08 hrs HW=1,748.28' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.05 cfs of 13.51 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 6.03 fps)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,746.66' (Free Discharge)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P3: P3 Gravel Wetland

Inflow Area = 7.379 ac, 15.26% Impervious, Inflow Depth = 0.79" for 2-Year event
Inflow = 9.25 cfs @ 11.95 hrs, Volume= 0.484 af
Outflow = 0.09 cfs @ 24.05 hrs, Volume= 0.483 af, Atten= 99%, Lag= 725.8 min
Primary = 0.09 cfs @ 24.05 hrs, Volume= 0.483 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.66' Surf.Area= 6,574 sf Storage= 6,995 cf
Peak Elev= 1,752.94' @ 24.05 hrs Surf.Area= 20,481 sf Storage= 24,335 cf (17,340 cf above start)

Plug-Flow detention time= 3,100.9 min calculated for 0.323 af (67% of inflow)
Center-of-Mass det. time= 2,172.3 min (3,028.9 - 856.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,748.00'	9,662 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,748.00'	9,662 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,752.50'	61,673 cf	**Ponding (Irregular)**Listed below (Recalc)
		80,998 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,752.50	10,828	401.5	0	0	10,828
1,754.00	14,121	764.7	18,657	18,657	44,545
1,756.50	20,489	895.0	43,016	61,673	61,879

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,749.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,750.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,754.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,755.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 24.05 hrs HW=1,752.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.09 cfs of 16.65 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 7.18 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P4: P4 VSF

Inflow Area = 2.468 ac, 22.97% Impervious, Inflow Depth = 0.85" for 2-Year event
Inflow = 3.19 cfs @ 11.91 hrs, Volume= 0.174 af
Outflow = 0.07 cfs @ 18.07 hrs, Volume= 0.174 af, Atten= 98%, Lag= 369.6 min
Primary = 0.07 cfs @ 18.07 hrs, Volume= 0.174 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,799.33' Surf.Area= 2,868 sf Storage= 379 cf
Peak Elev= 1,802.60' @ 18.07 hrs Surf.Area= 3,350 sf Storage= 5,293 cf (4,914 cf above start)

Plug-Flow detention time= 957.4 min calculated for 0.165 af (95% of inflow)
Center-of-Mass det. time= 878.7 min (1,722.2 - 843.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,799.00'	36,922 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,799.00	2,868	235.8	0.0	0	0	2,868
1,800.50	2,868	235.8	40.0	1,721	1,721	3,222
1,802.00	2,868	235.8	40.0	1,721	3,442	3,575
1,804.00	4,635	289.1	100.0	7,433	10,874	5,863
1,806.00	6,481	326.2	100.0	11,065	21,939	7,781
1,808.00	8,550	363.4	100.0	14,983	36,922	9,935

Device	Routing	Invert	Outlet Devices
#1	Primary	1,799.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,799.00' / 1,797.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,799.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,805.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,805.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.07 cfs @ 18.07 hrs HW=1,802.60' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.07 cfs of 8.04 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 8.63 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,799.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P5: Roads A and F Soil Filter

Inflow Area = 2.412 ac, 25.58% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 3.40 cfs @ 11.94 hrs, Volume= 0.145 af
Outflow = 0.06 cfs @ 17.86 hrs, Volume= 0.145 af, Atten= 98%, Lag= 355.5 min
Primary = 0.06 cfs @ 17.86 hrs, Volume= 0.145 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,831.33' Surf.Area= 2,838 sf Storage= 375 cf
Peak Elev= 1,834.30' @ 17.86 hrs Surf.Area= 3,062 sf Storage= 4,277 cf (3,903 cf above start)

Plug-Flow detention time= 851.5 min calculated for 0.137 af (94% of inflow)
Center-of-Mass det. time= 765.1 min (1,624.9 - 859.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,831.00'	21,966 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,831.00	2,838	261.4	0.0	0	0	2,838
1,832.50	2,838	261.4	40.0	1,703	1,703	3,230
1,834.00	2,838	261.4	40.0	1,703	3,406	3,622
1,836.00	4,520	299.0	100.0	7,293	10,699	5,390
1,838.00	6,826	390.0	100.0	11,267	21,966	10,427

Device	Routing	Invert	Outlet Devices
#1	Primary	1,830.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,830.00' / 1,828.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,831.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,836.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,837.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.06 cfs @ 17.86 hrs HW=1,834.30' (Free Discharge)
└**1=Culvert** (Passes 0.06 cfs of 12.65 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 8.22 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,831.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P8: P8 Gravel Wetland

Inflow Area = 1.628 ac, 46.93% Impervious, Inflow Depth = 1.04" for 2-Year event
Inflow = 3.27 cfs @ 11.92 hrs, Volume= 0.141 af
Outflow = 0.03 cfs @ 23.42 hrs, Volume= 0.141 af, Atten= 99%, Lag= 689.9 min
Primary = 0.03 cfs @ 23.42 hrs, Volume= 0.141 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,927.66' Surf.Area= 2,506 sf Storage= 2,666 cf
Peak Elev= 1,929.37' @ 23.42 hrs Surf.Area= 3,821 sf Storage= 7,321 cf (4,654 cf above start)

Plug-Flow detention time= 2,501.0 min calculated for 0.080 af (57% of inflow)
Center-of-Mass det. time= 1,577.1 min (2,413.4 - 836.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,925.00'	3,942 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,925.00'	3,871 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,929.50'	15,570 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,382 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	152.0	0.0	0	0	1,253
1,928.00	1,253	152.0	40.0	1,504	1,504	1,709
1,929.50	2,029	192.4	100.0	2,438	3,942	2,846

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	134.0	0.0	0	0	1,253
1,928.00	1,253	134.0	40.0	1,504	1,504	1,655
1,929.50	1,927	165.0	100.0	2,367	3,871	2,426

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,929.50	4,972	320.0	0	0	4,972
1,931.00	6,477	348.7	8,562	8,562	6,579
1,932.00	7,552	367.5	7,008	15,570	7,709

Device	Routing	Invert	Outlet Devices
#1	Primary	1,927.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,927.00' / 1,926.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,927.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,930.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,930.50'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64

2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.03 cfs @ 23.42 hrs HW=1,929.37' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.03 cfs of 14.00 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 6.23 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,927.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P9: Lot R51 Soil Filter

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 0.86" for 2-Year event
Inflow = 1.71 cfs @ 11.93 hrs, Volume= 0.080 af
Outflow = 0.05 cfs @ 15.52 hrs, Volume= 0.080 af, Atten= 97%, Lag= 215.7 min
Primary = 0.05 cfs @ 15.52 hrs, Volume= 0.080 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,941.33' Surf.Area= 1,440 sf Storage= 190 cf
Peak Elev= 1,944.32' @ 15.52 hrs Surf.Area= 1,608 sf Storage= 2,218 cf (2,028 cf above start)

Plug-Flow detention time= 633.5 min calculated for 0.076 af (95% of inflow)
Center-of-Mass det. time= 564.9 min (1,409.0 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,941.00'	22,064 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,941.00	1,440	179.7	0.0	0	0	1,440
1,942.50	1,440	179.7	40.0	864	864	1,710
1,944.00	1,440	179.7	40.0	864	1,728	1,979
1,946.00	2,631	217.4	100.0	4,012	5,740	3,235
1,948.00	4,049	255.1	100.0	6,629	12,369	4,729
1,950.00	5,693	292.8	100.0	9,695	22,064	6,462

Device	Routing	Invert	Outlet Devices
#1	Primary	1,940.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,940.00' / 1,938.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,941.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,941.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,945.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,945.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 15.52 hrs HW=1,944.32' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.05 cfs of 21.77 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.27 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,941.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 1: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=1,953.14' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 10: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,932.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,932.96' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 11: Small Rain Garden

Inflow Area = 0.389 ac, 41.13% Impervious, Inflow Depth = 0.98" for 2-Year event
Inflow = 0.66 cfs @ 11.98 hrs, Volume= 0.032 af
Outflow = 0.04 cfs @ 13.10 hrs, Volume= 0.032 af, Atten= 94%, Lag= 67.7 min
Primary = 0.04 cfs @ 13.10 hrs, Volume= 0.032 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,072.44' @ 13.10 hrs Surf.Area= 790 sf Storage= 770 cf (666 cf above start)

Plug-Flow detention time= 293.4 min calculated for 0.029 af (92% of inflow)
Center-of-Mass det. time= 224.3 min (1,068.4 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	790	0.0	0	0
2,071.50	790	40.0	474	474
2,073.00	790	40.0	474	948
2,074.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.10 hrs HW=2,072.44' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 8.73 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.92 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 12: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,072.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=2,072.41' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 13: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.00 cfs @ 11.98 hrs, Volume= 0.048 af
Outflow = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af, Atten= 96%, Lag= 132.8 min
Primary = 0.04 cfs @ 14.19 hrs, Volume= 0.048 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,072.41' @ 14.19 hrs Surf.Area= 1,321 sf Storage= 1,273 cf (1,099 cf above start)

Plug-Flow detention time= 480.4 min calculated for 0.044 af (92% of inflow)
Center-of-Mass det. time= 391.1 min (1,246.6 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.19 hrs HW=2,072.41' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 8.65 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.87 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.09 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 14: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af
Outflow = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af, Atten= 97%, Lag= 187.3 min
Primary = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,952.47' @ 15.10 hrs Surf.Area= 1,630 sf Storage= 1,612 cf (1,397 cf above start)

Plug-Flow detention time= 590.3 min calculated for 0.053 af (91% of inflow)
Center-of-Mass det. time= 490.6 min (1,346.1 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.10 hrs HW=1,952.47' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 8.82 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.98 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 15: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 1.21 cfs @ 11.98 hrs, Volume= 0.058 af
Outflow = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af, Atten= 97%, Lag= 187.3 min
Primary = 0.04 cfs @ 15.10 hrs, Volume= 0.058 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,952.47' @ 15.10 hrs Surf.Area= 1,630 sf Storage= 1,612 cf (1,397 cf above start)

Plug-Flow detention time= 590.3 min calculated for 0.053 af (91% of inflow)
Center-of-Mass det. time= 490.6 min (1,346.1 - 855.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 15.10 hrs HW=1,952.47' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.82 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.98 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 2: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=1,953.14' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 21: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.10" for 2-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af, Atten= 97%, Lag= 144.0 min
Primary = 0.04 cfs @ 14.37 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,933.14' @ 14.37 hrs Surf.Area= 1,384 sf Storage= 1,776 cf (1,601 cf above start)

Plug-Flow detention time= 538.7 min calculated for 0.061 af (94% of inflow)
Center-of-Mass det. time= 465.9 min (1,302.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	1,321	0.0	0	0
1,931.50	1,321	40.0	793	793
1,933.00	1,321	40.0	793	1,585
1,934.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 14.37 hrs HW=1,933.14' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 10.39 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.01 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.10 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 3: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.96' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 4: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.96' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 51: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af, Atten= 94%, Lag= 67.7 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.29' @ 13.11 hrs Surf.Area= 790 sf Storage= 725 cf (620 cf above start)

Plug-Flow detention time= 288.9 min calculated for 0.028 af (92% of inflow)
Center-of-Mass det. time= 217.1 min (1,065.0 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.29' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.34 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.67 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 52: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 0.93" for 2-Year event
Inflow = 0.63 cfs @ 11.98 hrs, Volume= 0.030 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af, Atten= 94%, Lag= 67.7 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.030 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.29' @ 13.11 hrs Surf.Area= 790 sf Storage= 725 cf (620 cf above start)

Plug-Flow detention time= 288.9 min calculated for 0.028 af (92% of inflow)
Center-of-Mass det. time= 217.1 min (1,065.0 - 847.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.29' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 8.34 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.67 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 6: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
    └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 7: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,952.96' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 8: Small Rain Garden

Inflow Area = 0.407 ac, 41.28% Impervious, Inflow Depth = 0.98" for 2-Year event
Inflow = 0.70 cfs @ 11.98 hrs, Volume= 0.033 af
Outflow = 0.04 cfs @ 13.14 hrs, Volume= 0.033 af, Atten= 94%, Lag= 69.9 min
Primary = 0.04 cfs @ 13.14 hrs, Volume= 0.033 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,952.55' @ 13.14 hrs Surf.Area= 790 sf Storage= 805 cf (700 cf above start)

Plug-Flow detention time= 295.8 min calculated for 0.031 af (93% of inflow)
Center-of-Mass det. time= 230.2 min (1,074.3 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.14 hrs HW=1,952.55' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.04 cfs of 9.00 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.10 fps)
  │ └─**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └─**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 9: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 0.78 cfs @ 11.97 hrs, Volume= 0.038 af
Outflow = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af, Atten= 95%, Lag= 68.3 min
Primary = 0.04 cfs @ 13.11 hrs, Volume= 0.038 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,932.96' @ 13.11 hrs Surf.Area= 790 sf Storage= 936 cf (832 cf above start)

Plug-Flow detention time= 308.9 min calculated for 0.035 af (94% of inflow)
Center-of-Mass det. time= 248.1 min (1,080.6 - 832.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.04 cfs @ 13.11 hrs HW=1,932.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 9.99 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.75 fps)
  │ └**3=Exfiltration** (Passes 0.04 cfs of 0.05 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Link SP14:

Inflow Area = 1.238 ac, 3.31% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 1.06 cfs @ 12.10 hrs, Volume= 0.075 af
Primary = 1.06 cfs @ 12.10 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 0.72" for 2-Year event
Inflow = 5.56 cfs @ 12.12 hrs, Volume= 1.553 af
Primary = 5.56 cfs @ 12.12 hrs, Volume= 1.553 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 1.345 ac, 7.96% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 0.97 cfs @ 12.10 hrs, Volume= 0.071 af
Primary = 0.97 cfs @ 12.10 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 4.417 ac, 23.41% Impervious, Inflow Depth = 0.75" for 2-Year event
Inflow = 1.96 cfs @ 11.94 hrs, Volume= 0.276 af
Primary = 1.96 cfs @ 11.94 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 0.207 ac, 10.14% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 0.32 cfs @ 11.95 hrs, Volume= 0.014 af
Primary = 0.32 cfs @ 11.95 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 0.585 ac, 4.10% Impervious, Inflow Depth = 0.63" for 2-Year event
Inflow = 0.50 cfs @ 12.05 hrs, Volume= 0.031 af
Primary = 0.50 cfs @ 12.05 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 0.64" for 2-Year event
Inflow = 10.57 cfs @ 12.46 hrs, Volume= 2.843 af
Primary = 10.57 cfs @ 12.46 hrs, Volume= 2.843 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 7.645 ac, 14.99% Impervious, Inflow Depth > 0.79" for 2-Year event
Inflow = 0.35 cfs @ 12.05 hrs, Volume= 0.500 af
Primary = 0.35 cfs @ 12.05 hrs, Volume= 0.500 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 0.225 ac, 11.11% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 0.25 cfs @ 12.05 hrs, Volume= 0.015 af
Primary = 0.25 cfs @ 12.05 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 0.280 ac, 13.93% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 0.34 cfs @ 12.03 hrs, Volume= 0.019 af
Primary = 0.34 cfs @ 12.03 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 11.20 cfs @ 12.14 hrs, Volume= 1.057 af
Primary = 11.20 cfs @ 12.14 hrs, Volume= 1.057 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14: WS 14 Runoff Area=1.238 ac 3.31% Impervious Runoff Depth=1.42"
Flow Length=624' Tc=16.0 min CN=78 Runoff=2.17 cfs 0.147 af

Subcatchment15: WS 15 Runoff Area=1.306 ac 1.30% Impervious Runoff Depth=1.29"
Flow Length=624' Tc=13.7 min CN=76 Runoff=2.23 cfs 0.141 af

Subcatchment15A: WS 15A Runoff Area=1.785 ac 7.79% Impervious Runoff Depth=1.11"
Flow Length=376' Tc=3.1 min CN=73 Runoff=3.84 cfs 0.166 af

Subcatchment15B: WS 15B Runoff Area=3.249 ac 1.72% Impervious Runoff Depth=1.00"
Flow Length=689' Tc=14.3 min CN=71 Runoff=4.03 cfs 0.271 af

Subcatchment15C: WS 15C Runoff Area=0.503 ac 7.36% Impervious Runoff Depth=1.11"
Flow Length=244' Tc=1.2 min CN=73 Runoff=1.10 cfs 0.047 af

Subcatchment15C1: WS 15C1 Runoff Area=0.234 ac 0.00% Impervious Runoff Depth=1.00"
Flow Length=241' Tc=12.1 min CN=71 Runoff=0.32 cfs 0.020 af

Subcatchment15D: WS 15D Runoff Area=0.408 ac 0.00% Impervious Runoff Depth=1.00"
Flow Length=111' Slope=0.5100 '/' Tc=6.2 min CN=71 Runoff=0.69 cfs 0.034 af

Subcatchment15E: WS 15E Runoff Area=0.711 ac 38.12% Impervious Runoff Depth=1.93"
Flow Length=427' Tc=1.8 min CN=85 Runoff=2.60 cfs 0.114 af

Subcatchment15F: WS 15F Runoff Area=2.145 ac 0.05% Impervious Runoff Depth=1.42"
Flow Length=584' Slope=0.1400 '/' Tc=9.2 min CN=78 Runoff=4.76 cfs 0.254 af

Subcatchment15G: WS 15G Runoff Area=1.566 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=619' Tc=12.5 min CN=72 Runoff=2.22 cfs 0.138 af

Subcatchment16: WS 16 Runoff Area=1.345 ac 7.96% Impervious Runoff Depth=1.29"
Flow Length=640' Tc=16.1 min CN=76 Runoff=2.12 cfs 0.145 af

Subcatchment17: WS 17 Runoff Area=1.216 ac 17.52% Impervious Runoff Depth=1.56"
Flow Length=404' Tc=2.9 min CN=80 Runoff=3.68 cfs 0.158 af

Subcatchment17A: WS 17A Runoff Area=3.201 ac 25.65% Impervious Runoff Depth=1.42"
Flow Length=435' Tc=10.5 min CN=78 Runoff=6.75 cfs 0.379 af

Subcatchment17B: WS 17B Runoff Area=2.412 ac 25.58% Impervious Runoff Depth=1.42"
Flow Length=677' Tc=2.4 min CN=78 Runoff=6.71 cfs 0.286 af

Subcatchment17C: WS 17C Runoff Area=1.420 ac 9.79% Impervious Runoff Depth=1.11"
Flow Length=465' Tc=6.9 min CN=73 Runoff=2.65 cfs 0.132 af

Subcatchment17D: WS 17D Runoff Area=1.794 ac 20.79% Impervious Runoff Depth=1.29"
Flow Length=855' Tc=1.5 min CN=76 Runoff=4.52 cfs 0.193 af

Subcatchment17E: WS 17E Runoff Area=2.734 ac 36.14% Impervious Runoff Depth=1.85"
Flow Length=1,721' Tc=6.3 min CN=84 Runoff=8.67 cfs 0.422 af

Subcatchment17F: WS 17F Runoff Area=4.893 ac 0.00% Impervious Runoff Depth=1.36"
Flow Length=899' Tc=22.7 min CN=77 Runoff=6.67 cfs 0.553 af

Subcatchment18: WS 18 Runoff Area=0.207 ac 10.14% Impervious Runoff Depth=1.56"
Flow Length=157' Tc=4.2 min CN=80 Runoff=0.60 cfs 0.027 af

Subcatchment19: WS 19 Runoff Area=0.585 ac 4.10% Impervious Runoff Depth=1.29"
Flow Length=455' Tc=11.5 min CN=76 Runoff=1.08 cfs 0.063 af

Subcatchment20: WS 20 Runoff Area=1.316 ac 5.85% Impervious Runoff Depth=1.42"
Flow Length=426' Tc=6.0 min CN=78 Runoff=3.26 cfs 0.156 af

Subcatchment20A: WS 20A Runoff Area=1.160 ac 12.67% Impervious Runoff Depth=1.17"
Flow Length=330' Tc=3.3 min CN=74 Runoff=2.62 cfs 0.113 af

Subcatchment20B: WS 20B Runoff Area=0.730 ac 7.40% Impervious Runoff Depth=1.11"
Flow Length=216' Tc=5.5 min CN=73 Runoff=1.41 cfs 0.068 af

Subcatchment20C: WS 20C Runoff Area=1.681 ac 45.03% Impervious Runoff Depth=1.77"
Flow Length=450' Tc=3.7 min CN=83 Runoff=5.64 cfs 0.249 af

Subcatchment20D: WS 20D Runoff Area=11.452 ac 0.56% Impervious Runoff Depth=1.17"
Flow Length=1,926' Tc=28.2 min CN=74 Runoff=11.42 cfs 1.118 af

Subcatchment20E: WS 20E Runoff Area=1.398 ac 0.00% Impervious Runoff Depth=1.11"
Flow Length=331' Tc=13.8 min CN=73 Runoff=2.01 cfs 0.130 af

Subcatchment21: WS 21 Runoff Area=0.266 ac 7.52% Impervious Runoff Depth=1.49"
Flow Length=242' Tc=11.6 min CN=79 Runoff=0.57 cfs 0.033 af

Subcatchment21A: WS 21A Runoff Area=5.281 ac 20.37% Impervious Runoff Depth=1.70"
Flow Length=593' Tc=4.1 min CN=82 Runoff=16.79 cfs 0.748 af

Subcatchment21B: WS 21B Runoff Area=2.098 ac 2.38% Impervious Runoff Depth=1.00"
Flow Length=624' Tc=25.2 min CN=71 Runoff=1.86 cfs 0.175 af

Subcatchment21C: WS 21C Runoff Area=21.265 ac 6.68% Impervious Runoff Depth=1.23"
Flow Length=2,762' Tc=53.8 min CN=75 Runoff=14.26 cfs 2.182 af

Subcatchment21D: WS 21D Runoff Area=4.433 ac 6.32% Impervious Runoff Depth=1.06"
Flow Length=674' Tc=2.9 min CN=72 Runoff=9.07 cfs 0.390 af

Subcatchment21E: WS 21E Runoff Area=1.628 ac 46.93% Impervious Runoff Depth=1.85"
Flow Length=453' Tc=1.7 min CN=84 Runoff=5.76 cfs 0.251 af

Subcatchment22: WS 22 Runoff Area=0.225 ac 11.11% Impervious Runoff Depth=1.56"
Flow Length=208' Tc=12.3 min CN=80 Runoff=0.49 cfs 0.029 af

Subcatchment23: WS 23 Runoff Area=0.280 ac 13.93% Impervious Runoff Depth=1.56"
Flow Length=285' Tc=10.2 min CN=80 Runoff=0.66 cfs 0.036 af

Subcatchment23A: WS 23A Runoff Area=1.267 ac 44.75% Impervious Runoff Depth=2.09"
Flow Length=362' Tc=1.3 min CN=87 Runoff=5.10 cfs 0.221 af

Subcatchment23B: WS 23B Runoff Area=1.201 ac 0.00% Impervious Runoff Depth=1.00"
Flow Length=467' Tc=12.6 min CN=71 Runoff=1.59 cfs 0.100 af

Subcatchment24: WS 24 Runoff Area=14.634 ac 3.97% Impervious Runoff Depth=1.42"
Flow Length=2,578' Tc=19.4 min CN=78 Runoff=23.03 cfs 1.734 af

SubcatchmentR1: R1 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR10: R10 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR11: R11 Runoff Area=0.389 ac 41.13% Impervious Runoff Depth=1.77"
Tc=6.0 min CN=83 Runoff=1.19 cfs 0.058 af

SubcatchmentR12: R12 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR13: R13 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=1.89 cfs 0.091 af

SubcatchmentR14: R14 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=2.28 cfs 0.110 af

SubcatchmentR15: R15 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=80 Runoff=2.28 cfs 0.110 af

SubcatchmentR2: R2 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR21: R21 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=85 Runoff=2.32 cfs 0.113 af

SubcatchmentR3: R3 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR4: R4 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

SubcatchmentR51: R51 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.70"
Tc=6.0 min CN=82 Runoff=1.14 cfs 0.055 af

SubcatchmentR52: R52 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=1.70"
Tc=6.0 min CN=82 Runoff=1.14 cfs 0.055 af

Subcatchment R6: R6 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

Subcatchment R7: R7 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

Subcatchment R8: R8 Runoff Area=0.407 ac 41.28% Impervious Runoff Depth=1.77"
Tc=6.0 min CN=83 Runoff=1.24 cfs 0.060 af

Subcatchment R9: R9 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=86 Runoff=1.34 cfs 0.065 af

Reach 6R: stream Avg. Flow Depth=0.48' Max Vel=6.36 fps Inflow=10.78 cfs 2.596 af
n=0.050 L=280.0' S=0.1643 '/' Capacity=132.62 cfs Outflow=10.61 cfs 2.595 af

Reach 8R: ditch to stream Avg. Flow Depth=0.35' Max Vel=5.77 fps Inflow=6.81 cfs 2.040 af
n=0.050 L=475.0' S=0.1937 '/' Capacity=144.00 cfs Outflow=6.68 cfs 2.039 af

Reach 9R: stream Avg. Flow Depth=0.76' Max Vel=7.75 fps Inflow=25.19 cfs 5.595 af
n=0.050 L=330.0' S=0.1424 '/' Capacity=139.42 cfs Outflow=25.15 cfs 5.595 af

Reach 10R: stream Avg. Flow Depth=0.72' Max Vel=8.23 fps Inflow=24.95 cfs 5.481 af
n=0.050 L=140.0' S=0.1714 '/' Capacity=152.96 cfs Outflow=24.91 cfs 5.481 af

Reach 11R: stream Avg. Flow Depth=0.72' Max Vel=8.67 fps Inflow=23.37 cfs 4.199 af
n=0.050 L=300.0' S=0.1967 '/' Capacity=145.10 cfs Outflow=23.32 cfs 4.199 af

Reach 14R: drainage ditch Avg. Flow Depth=0.28' Max Vel=3.06 fps Inflow=2.36 cfs 0.378 af
n=0.069 L=600.0' S=0.1500 '/' Capacity=106.43 cfs Outflow=2.19 cfs 0.378 af

Reach 114R: dead end channel Avg. Flow Depth=0.39' Max Vel=8.53 fps Inflow=11.29 cfs 2.761 af
n=0.050 L=400.0' S=0.3750 '/' Capacity=200.37 cfs Outflow=11.18 cfs 2.760 af

Reach 115R: stream Avg. Flow Depth=0.80' Max Vel=8.07 fps Inflow=24.43 cfs 5.282 af
n=0.050 L=130.0' S=0.1538 '/' Capacity=128.34 cfs Outflow=24.39 cfs 5.282 af

Pond 2P: Culvert 7C Driveway Inflow=25.19 cfs 5.595 af
Primary=25.19 cfs 5.595 af

Pond 3P: Culvert 7B -Road A Inflow=24.95 cfs 5.481 af
Primary=24.95 cfs 5.481 af

Pond 4P: trail culvert Inflow=2.65 cfs 0.132 af
Primary=2.65 cfs 0.132 af

Pond 5P: Culvert 7A Inflow=24.43 cfs 5.282 af
Primary=24.43 cfs 5.282 af

Pond 7P: Culvert 6A Inflow=10.78 cfs 2.596 af
Primary=10.78 cfs 2.596 af

Pond 8P: new 36 Peak Elev=1.95' Inflow=23.11 cfs 2.055 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0400 '/' Outflow=23.11 cfs 2.055 af

Pond 9P: new 36 Peak Elev=1.42' Inflow=13.35 cfs 2.901 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0150 '/' Outflow=13.35 cfs 2.901 af

Pond 13P: Culvert 6B Inflow=11.29 cfs 2.761 af
Primary=11.29 cfs 2.761 af

Pond 39P: Trail culvert Inflow=0.06 cfs 0.148 af
Primary=0.06 cfs 0.148 af

Pond 40P: Bypass culvert Inflow=4.89 cfs 0.498 af
Primary=4.89 cfs 0.498 af

Pond 108P: new 36 Peak Elev=1,742.07' Inflow=25.53 cfs 5.751 af
36.0" Round Culvert n=0.025 L=70.0' S=0.0286 '/' Outflow=25.53 cfs 5.751 af

Pond P10: P10 Gravel Wetland Peak Elev=1,981.79' Storage=44,559 cf Inflow=12.00 cfs 0.975 af
Primary=0.12 cfs 0.837 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.837 af

Pond P17: P17 Gravel Wetland Peak Elev=1,877.25' Storage=20,052 cf Inflow=10.03 cfs 0.442 af
Primary=0.09 cfs 0.442 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.442 af

Pond P2: Townhomes 3-6 Gravel Wetland Peak Elev=1,749.02' Storage=15,552 cf Inflow=6.75 cfs 0.379 af
Primary=0.15 cfs 0.353 af Secondary=0.07 cfs 0.026 af Outflow=0.22 cfs 0.379 af

Pond P3: P3 Gravel Wetland Peak Elev=1,754.30' Storage=42,286 cf Inflow=17.27 cfs 0.923 af
Primary=0.11 cfs 0.805 af Secondary=0.00 cfs 0.000 af Outflow=0.11 cfs 0.805 af

Pond P4: P4 VSF Peak Elev=1,803.96' Storage=10,712 cf Inflow=5.73 cfs 0.321 af
Primary=0.08 cfs 0.321 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.321 af

Pond P5: Roads A and F Soil Filter Peak Elev=1,835.71' Storage=9,424 cf Inflow=6.71 cfs 0.286 af
Primary=0.08 cfs 0.286 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.286 af

Pond P8: P8 Gravel Wetland Peak Elev=1,930.23' Storage=11,714 cf Inflow=5.76 cfs 0.251 af
Primary=0.04 cfs 0.251 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.251 af

Pond P9: Lot R51 Soil Filter Peak Elev=1,945.50' Storage=4,511 cf Inflow=3.16 cfs 0.148 af
Primary=0.06 cfs 0.148 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.148 af

Pond RG 1: Medium Rain Garden Peak Elev=1,953.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 10: Small Rain Garden Peak Elev=1,933.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 11: Small Rain Garden Peak Elev=2,073.52' Storage=1,410 cf Inflow=1.19 cfs 0.058 af
Primary=0.08 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.058 af

Pond RG 12: Medium Rain Garden Peak Elev=2,073.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 13: Medium Rain Garden Peak Elev=2,073.54' Storage=2,361 cf Inflow=1.89 cfs 0.091 af
Primary=0.10 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.091 af

Pond RG 14: Large Rain Garden Peak Elev=1,953.55' Storage=2,918 cf Inflow=2.28 cfs 0.110 af
Primary=0.12 cfs 0.110 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.110 af

Pond RG 15: Large Rain Garden Peak Elev=1,953.55' Storage=2,918 cf Inflow=2.28 cfs 0.110 af
Primary=0.12 cfs 0.110 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.110 af

Pond RG 2: Medium Rain Garden Peak Elev=1,953.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 21: Medium Rain Garden Peak Elev=1,933.64' Storage=2,520 cf Inflow=2.32 cfs 0.113 af
Primary=0.40 cfs 0.113 af Secondary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.113 af

Pond RG 3: Small Rain Garden Peak Elev=1,953.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 4: Small Rain Garden Peak Elev=1,953.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 51: Small Rain Garden Peak Elev=1,953.51' Storage=1,398 cf Inflow=1.14 cfs 0.055 af
Primary=0.05 cfs 0.055 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.055 af

Pond RG 52: Small Rain Garden Peak Elev=1,953.51' Storage=1,398 cf Inflow=1.14 cfs 0.055 af
Primary=0.05 cfs 0.055 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.055 af

Pond RG 6: Small Rain Garden Peak Elev=1,953.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 7: Small Rain Garden Peak Elev=1,953.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Pond RG 8: Small Rain Garden Peak Elev=1,953.54' Storage=1,426 cf Inflow=1.24 cfs 0.060 af
Primary=0.11 cfs 0.060 af Secondary=0.00 cfs 0.000 af Outflow=0.11 cfs 0.060 af

Pond RG 9: Small Rain Garden Peak Elev=1,933.57' Storage=1,461 cf Inflow=1.34 cfs 0.065 af
Primary=0.19 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.065 af

Link SP14: Inflow=2.17 cfs 0.147 af
Primary=2.17 cfs 0.147 af

Link SP15: Inflow=13.35 cfs 2.901 af
Primary=13.35 cfs 2.901 af

Link SP16: Inflow=2.12 cfs 0.145 af
Primary=2.12 cfs 0.145 af

Link SP17: Inflow=3.71 cfs 0.537 af
Primary=3.71 cfs 0.537 af

Link SP18: Inflow=0.60 cfs 0.027 af
Primary=0.60 cfs 0.027 af

Link SP19: Inflow=1.08 cfs 0.063 af
Primary=1.08 cfs 0.063 af

Link SP20: Inflow=25.53 cfs 5.751 af
Primary=25.53 cfs 5.751 af

Link SP21: Inflow=0.65 cfs 0.838 af
Primary=0.65 cfs 0.838 af

Link SP22: Inflow=0.49 cfs 0.029 af
Primary=0.49 cfs 0.029 af

Link SP23: Inflow=0.66 cfs 0.036 af
Primary=0.66 cfs 0.036 af

Link SP24: Inflow=23.11 cfs 2.055 af
Primary=23.11 cfs 2.055 af

Total Runoff Area = 112.414 ac Runoff Volume = 12.787 af Average Runoff Depth = 1.36"
88.30% Pervious = 99.266 ac 11.70% Impervious = 13.148 ac

Summary for Subcatchment 14: WS 14

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.147 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.657	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.170	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.192	78	Proposed developed meadow to be treated, HSG D
0.080	71	Proposed meadow, ski trail, HSG C
0.096	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.238	78	Weighted Average
1.197		96.69% Pervious Area
0.041		3.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	81	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	28	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	44	0.5000	1.77		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	192	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	209	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	70	0.0400	4.33	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

16.0 624 Total

Summary for Subcatchment 15: WS 15

Runoff = 2.23 cfs @ 12.06 hrs, Volume= 0.141 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.017	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.776	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.042	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.096	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.306	76	Weighted Average
1.289		98.70% Pervious Area
0.017		1.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0700	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	69	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	44	0.5000	4.95		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	170	0.1500	12.39	148.70	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	43	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
13.7	624	Total			

Summary for Subcatchment 15A: WS 15A

Runoff = 3.84 cfs @ 11.94 hrs, Volume= 0.166 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.051	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.047	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.092	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.595	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.785	73	Weighted Average
1.646		92.21% Pervious Area
0.139		7.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	72	0.0800	1.94		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
2.3	155	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	149	0.1200	11.08	133.00	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050 Mountain streams w/large boulders
3.1	376	Total			

Summary for Subcatchment 15B: WS 15B

Runoff = 4.03 cfs @ 12.08 hrs, Volume= 0.271 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.387	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.966	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.064	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.056	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.129	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.647	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.249	71	Weighted Average
3.193		98.28% Pervious Area
0.056		1.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
7.0	502	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	87	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
14.3	689	Total			

Summary for Subcatchment 15C: WS 15C

Runoff = 1.10 cfs @ 11.91 hrs, Volume= 0.047 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.010	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.037	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.352	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.103	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.503	73	Weighted Average
0.466		92.64% Pervious Area
0.037		7.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	66	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	41	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	137	0.2000	23.50	94.01	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.2	244	Total			

Summary for Subcatchment 15C1: WS 15C1

Runoff = 0.32 cfs @ 12.05 hrs, Volume= 0.020 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.234	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.234	71	Weighted Average
0.234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	41	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	141	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.1	241	Total			

Summary for Subcatchment 15D: WS 15D

Runoff = 0.69 cfs @ 11.98 hrs, Volume= 0.034 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.004	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.038	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.366	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.408	71	Weighted Average
0.408		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	43	0.5100	0.12		**Sheet Flow,** n= 0.800 P2= 2.40"
0.2	68	0.5100	5.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.2	111	Total			

Summary for Subcatchment 15E: WS 15E

Runoff = 2.60 cfs @ 11.92 hrs, Volume= 0.114 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.012	70	Existing Woods, Good, HSG C
0.018	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.054	98	Proposed impervious to be treated, HSG C
0.217	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.031	71	Proposed developed meadow to be treated, HSG C
0.379	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.711	85	Weighted Average
0.440		61.88% Pervious Area
0.271		38.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	302	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.8	427	Total			

Summary for Subcatchment 15F: WS 15F

Runoff = 4.76 cfs @ 12.01 hrs, Volume= 0.254 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.323	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.324	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.001	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.019	71	Proposed developed meadow, non-grazed, HSG C
0.593	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.011	71	Proposed meadow, ski trail, HSG C
0.852	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.145	78	Weighted Average
2.144		99.95% Pervious Area
0.001		0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	83	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	401	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
9.2	584	Total			

Summary for Subcatchment 15G: WS 15G

Runoff = 2.22 cfs @ 12.05 hrs, Volume= 0.138 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.096	71	Existing meadow, non-grazed, HSG C
0.002	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.411	70	Existing Woods, Good, HSG C
0.082	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.098	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.362	71	Proposed developed meadow, non-grazed, HSG C
0.172	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.566	72	Weighted Average
1.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	54	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	21	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	544	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
12.5	619	Total			

Summary for Subcatchment 16: WS 16

Runoff = 2.12 cfs @ 12.09 hrs, Volume= 0.145 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.084	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.001	71	Existing meadow, non-grazed, HSG C
0.027	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.098	70	Existing Woods, Good, HSG C
0.543	77	Existing Woods, Good, HSG D
0.054	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.023	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.162	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.273	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.345	76	Weighted Average
1.238		92.04% Pervious Area
0.107		7.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	26	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	25	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	119	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	139	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	161	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	70	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
16.1	640	Total			

Summary for Subcatchment 17: WS 17

Runoff = 3.68 cfs @ 11.94 hrs, Volume= 0.158 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.166	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.127	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.551	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.047	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.202	71	Proposed developed meadow, non-grazed, HSG C
0.076	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.216	80	Weighted Average
1.003		82.48% Pervious Area
0.213		17.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	23	0.1700	2.09		**Sheet Flow,** n= 0.011 P2= 2.40"
0.4	53	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	126	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	202	0.1400	15.06	75.28	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.030
2.9	404	Total			

Summary for Subcatchment 17A: WS 17A

Runoff = 6.75 cfs @ 12.03 hrs, Volume= 0.379 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.152	70	Existing Woods, Good, HSG C
0.011	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.821	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.586	71	Proposed developed meadow to be treated, HSG C
0.260	78	Proposed developed meadow to be treated, HSG D
0.350	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.201	78	Weighted Average
2.380		74.35% Pervious Area
0.821		25.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	73	0.1200	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.8	94	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	268	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.5	435	Total			

Summary for Subcatchment 17B: WS 17B

Runoff = 6.71 cfs @ 11.93 hrs, Volume= 0.286 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.127	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.326	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.617	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.336	71	Proposed developed meadow to be treated, HSG C
0.006	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.412	78	Weighted Average
1.795		74.42% Pervious Area
0.617		25.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	35	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	542	0.1300	5.65	16.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.4	677	Total			

Summary for Subcatchment 17C: WS 17C

Runoff = 2.65 cfs @ 11.99 hrs, Volume= 0.132 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.057	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.462	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.139	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.651	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.420	73	Weighted Average
1.281		90.21% Pervious Area
0.139		9.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	55	0.1900	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.5	164	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	246	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
6.9	465	Total			

Summary for Subcatchment 17D: WS 17D

Runoff = 4.52 cfs @ 11.92 hrs, Volume= 0.193 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.030	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.315	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.315	98	Proposed impervious to be treated, HSG C
0.058	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.065	71	Proposed developed meadow to be treated, HSG C
0.011	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.794	76	Weighted Average
1.421		79.21% Pervious Area
0.373		20.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1200	2.44		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	46	0.1200	7.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	709	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.5	855	Total			

Summary for Subcatchment 17E: WS 17E

Runoff = 8.67 cfs @ 11.98 hrs, Volume= 0.422 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.001	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.414	98	Proposed impervious to be treated, HSG C
0.574	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.285	71	Proposed developed meadow to be treated, HSG C
1.456	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.004	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.734	84	Weighted Average
1.746		63.86% Pervious Area
0.988		36.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
5.1	1,621	0.1000	5.30	21.20	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
6.3	1,721	Total			

Summary for Subcatchment 17F: WS 17F

Runoff = 6.67 cfs @ 12.17 hrs, Volume= 0.553 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.041	71	Existing meadow, non-grazed, HSG C
0.804	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.114	71	Proposed developed meadow to be treated, HSG C
1.841	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.893	77	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.9	182	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	241	0.0300	9.10	36.41	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
8.5	424	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.7	899	Total			

Summary for Subcatchment 18: WS 18

Runoff = 0.60 cfs @ 11.95 hrs, Volume= 0.027 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.065	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.207	80	Weighted Average
0.186		89.86% Pervious Area
0.021		10.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	65	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	92	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
4.2	157	Total			

Summary for Subcatchment 19: WS 19

Runoff = 1.08 cfs @ 12.04 hrs, Volume= 0.063 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.008	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.016	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.113	70	Existing Woods, Good, HSG C
0.312	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.016	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.047	71	Proposed developed meadow, non-grazed, HSG C
0.073	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.585	76	Weighted Average
0.561		95.90% Pervious Area
0.024		4.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
4.2	253	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	455	Total			

Summary for Subcatchment 20: WS 20

Runoff = 3.26 cfs @ 11.98 hrs, Volume= 0.156 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.802	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.013	98	Untreated proposed impervious, HSG C
0.027	98	Untreated proposed impervious, HSG D
0.021	71	Proposed developed meadow, non-grazed, HSG C
0.379	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.316	78	Weighted Average
1.239		94.15% Pervious Area
0.077		5.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	34	0.0600	1.49		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	18	0.3900	4.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	166	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	144	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	64	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
6.0	426	Total			

Summary for Subcatchment 20A: WS 20A

Runoff = 2.62 cfs @ 11.94 hrs, Volume= 0.113 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.287	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.141	98	Untreated proposed impervious, HSG C
0.006	98	Untreated proposed impervious, HSG D
0.600	71	Proposed developed meadow, non-grazed, HSG C
0.008	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.118	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.160	74	Weighted Average
1.013		87.33% Pervious Area
0.147		12.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	47	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	116	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	32	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	330	Total			

Summary for Subcatchment 20B: WS 20B

Runoff = 1.41 cfs @ 11.97 hrs, Volume= 0.068 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.026	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.098	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.054	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.182	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.370	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.730	73	Weighted Average
0.676		92.60% Pervious Area
0.054		7.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	76	0.2000	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	140	0.1300	13.74	228.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=3.50' Z= 1.0 & 0.0 '/' Top.W=6.50' n= 0.050 Mountain streams w/large boulders
5.5	216	Total			

Summary for Subcatchment 20C: WS 20C

Runoff = 5.64 cfs @ 11.94 hrs, Volume= 0.249 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.757	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.923	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.681	83	Weighted Average
0.924		54.97% Pervious Area
0.757		45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0800	2.07		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	43	0.0800	5.74		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	307	0.0060	1.83	1.44	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
3.7	450	Total			

Summary for Subcatchment 20D: WS 20D

Runoff = 11.42 cfs @ 12.24 hrs, Volume= 1.118 af, Depth= 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.530	71	Existing meadow, non-grazed, HSG C
2.720	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.679	70	Existing Woods, Good, HSG C
1.134	77	Existing Woods, Good, HSG D
0.241	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.064	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.002	71	Proposed developed meadow, non-grazed, HSG C
0.586	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.496	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.452	74	Weighted Average
11.388		99.44% Pervious Area
0.064		0.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.8	470	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	338	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	665	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.1	274	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	79	0.0300	2.72	8.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch

28.2 1,926 Total

Summary for Subcatchment 20E: WS 20E

Runoff = 2.01 cfs @ 12.07 hrs, Volume= 0.130 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.061	71	Existing meadow, non-grazed, HSG C
0.148	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.327	70	Existing Woods, Good, HSG C
0.356	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.426	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.398	73	Weighted Average
1.398		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.6	149	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	133	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
13.8	331	Total			

Summary for Subcatchment 21: WS 21

Runoff = 0.57 cfs @ 12.04 hrs, Volume= 0.033 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.020	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.005	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.035	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.206	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.266	79	Weighted Average
0.246		92.48% Pervious Area
0.020		7.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	55	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	17	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	170	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.6	242	Total			

Summary for Subcatchment 21A: WS 21A

Runoff = 16.79 cfs @ 11.95 hrs, Volume= 0.748 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.034	70	Existing Woods, Good, HSG C
0.923	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.063	98	Proposed impervious to be treated, HSG C
1.013	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.085	71	Proposed developed meadow to be treated, HSG C
3.163	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.281	82	Weighted Average
4.205		79.63% Pervious Area
1.076		20.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	89	0.0900	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	42	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	99	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	222	0.0500	3.51	10.52	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.1	50	0.0500	16.10	50.59	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.2	91	0.1500	6.07	18.22	**Trap/Vee/Rect Channel Flow,**

Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00'
n= 0.069 Riprap, 6-inch

4.1	593	Total

Summary for Subcatchment 21B: WS 21B

Runoff = 1.86 cfs @ 12.21 hrs, Volume= 0.175 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.052	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.046	70	Existing Woods, Good, HSG C
0.012	77	Existing Woods, Good, HSG D
0.211	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.050	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.165	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.497	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.098	71	Weighted Average
2.048		97.62% Pervious Area
0.050		2.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	161	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.7	363	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.2	624	Total			

Summary for Subcatchment 21C: WS 21C

Runoff = 14.26 cfs @ 12.58 hrs, Volume= 2.182 af, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
1.021	98	Untreated existing impervious, HSG C
0.399	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
3.515	71	Existing meadow, non-grazed, HSG C
3.201	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
8.408	70	Existing Woods, Good, HSG C
3.898	77	Existing Woods, Good, HSG D
0.185	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.179	71	Proposed developed meadow, non-grazed, HSG C
0.459	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
21.265	75	Weighted Average
19.845		93.32% Pervious Area
1.420		6.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	17	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	146	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	259	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	218	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	279	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	186	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	90	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	201	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	256	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	195	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	80	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	334	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	115	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	113	0.1900	22.91	91.63	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
53.8	2,762	Total			

Summary for Subcatchment 21D: WS 21D

Runoff = 9.07 cfs @ 11.94 hrs, Volume= 0.390 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.045	71	Existing meadow, non-grazed, HSG C
0.036	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.309	70	Existing Woods, Good, HSG C
0.065	77	Existing Woods, Good, HSG D
0.280	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.280	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.418	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.433	72	Weighted Average
4.153		93.68% Pervious Area
0.280		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	40	0.1000	1.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	43	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	134	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	457	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
2.9	674	Total			

Summary for Subcatchment 21E: WS 21E

Runoff = 5.76 cfs @ 11.91 hrs, Volume= 0.251 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.763	98	Proposed impervious to be treated, HSG C
0.001	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.794	71	Proposed developed meadow to be treated, HSG C
0.018	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.628	84	Weighted Average
0.864		53.07% Pervious Area
0.764		46.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	26	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	327	0.3500	13.96	10.96	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.7	453	Total			

Summary for Subcatchment 22: WS 22

Runoff = 0.49 cfs @ 12.05 hrs, Volume= 0.029 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.025	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.115	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.085	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.225	80	Weighted Average
0.200		88.89% Pervious Area
0.025		11.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.1	47	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	125	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
12.3	208	Total			

Summary for Subcatchment 23: WS 23

Runoff = 0.66 cfs @ 12.02 hrs, Volume= 0.036 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.004	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.123	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.114	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.280	80	Weighted Average
0.241		86.07% Pervious Area
0.039		13.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	67	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	118	0.0700	13.90	55.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.2	285	Total			

Summary for Subcatchment 23A: WS 23A

Runoff = 5.10 cfs @ 11.91 hrs, Volume= 0.221 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.057	98	Proposed impervious to be treated, HSG C
0.510	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.027	71	Proposed developed meadow to be treated, HSG C
0.673	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.267	87	Weighted Average
0.700		55.25% Pervious Area
0.567		44.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0400	1.22		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	53	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	281	0.0600	5.78	4.54	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.3	362	Total			

Summary for Subcatchment 23B: WS 23B

Runoff = 1.59 cfs @ 12.06 hrs, Volume= 0.100 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.306	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.509	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.032	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.215	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.094	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.201	71	Weighted Average
1.201		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	40	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	229	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	98	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	467	Total			

Summary for Subcatchment 24: WS 24

Runoff = 23.03 cfs @ 12.13 hrs, Volume= 1.734 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.502	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.614	71	Existing meadow, non-grazed, HSG C
6.291	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.411	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.079	98	Untreated proposed impervious, HSG D
0.065	71	Proposed developed meadow, non-grazed, HSG C
0.643	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.002	78	Proposed developed meadow to be treated, HSG D
0.027	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
14.634	78	Weighted Average
14.053		96.03% Pervious Area
0.581		3.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	10	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	210	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	333	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	221	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	317	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	305	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	241	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	138	0.2000	21.99	65.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	224	0.1500	19.05	57.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.1	118	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	167	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	89	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	105	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
19.4	2,578	Total			

Summary for Subcatchment R1: R1

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R10: R10

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R11: R11

Runoff = 1.19 cfs @ 11.97 hrs, Volume= 0.058 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.127	98	Proposed impervious to be treated, HSG C
0.033	98	Proposed impervious to be treated, HSG D
0.182	71	Proposed developed meadow to be treated, HSG C
0.047	78	Proposed developed meadow to be treated, HSG D
0.389	83	Weighted Average
0.229		58.87% Pervious Area
0.160		41.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R12: R12

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R13: R13

Runoff = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R14: R14

Runoff = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R15: R15

Runoff = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R2: R2

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R21: R21

Runoff = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af, Depth= 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R3: R3

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R4: R4

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R51: R51

Runoff = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R52: R52

Runoff = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R6: R6

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R7: R7

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.002	98	Proposed impervious to be treated, HSG C
0.159	98	Proposed impervious to be treated, HSG D
0.003	71	Proposed developed meadow to be treated, HSG C
0.227	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R8: R8

Runoff = 1.24 cfs @ 11.97 hrs, Volume= 0.060 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.131	98	Proposed impervious to be treated, HSG C
0.037	98	Proposed impervious to be treated, HSG D
0.187	71	Proposed developed meadow to be treated, HSG C
0.052	78	Proposed developed meadow to be treated, HSG D
0.407	83	Weighted Average
0.239		58.72% Pervious Area
0.168		41.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R9: R9

Runoff = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af, Depth= 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.40"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Reach 6R: stream

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 1.36" for 10-Year event
Inflow = 10.78 cfs @ 12.07 hrs, Volume= 2.596 af
Outflow = 10.61 cfs @ 12.10 hrs, Volume= 2.595 af, Atten= 2%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.36 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.46 fps, Avg. Travel Time= 3.2 min

Peak Storage= 471 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.48' , Surface Width= 3.97'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 132.62 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 280.0' Slope= 0.1643 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,769.00'

Summary for Reach 8R: ditch to stream

Inflow Area = 17.262 ac, 16.17% Impervious, Inflow Depth > 1.42" for 10-Year event
Inflow = 6.81 cfs @ 12.02 hrs, Volume= 2.040 af
Outflow = 6.68 cfs @ 12.07 hrs, Volume= 2.039 af, Atten= 2%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.77 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.43 fps, Avg. Travel Time= 5.5 min

Peak Storage= 556 cf @ 12.04 hrs
Average Depth at Peak Storage= 0.35' , Surface Width= 3.70'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 144.00 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 475.0' Slope= 0.1937 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,818.00'

Summary for Reach 9R: stream

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 25.19 cfs @ 12.38 hrs, Volume= 5.595 af
Outflow = 25.15 cfs @ 12.40 hrs, Volume= 5.595 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.75 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 4.0 min

Peak Storage= 1,072 cf @ 12.39 hrs
Average Depth at Peak Storage= 0.76' , Surface Width= 5.02'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 139.42 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 330.0' Slope= 0.1424 '/'
Inlet Invert= 1,787.00', Outlet Invert= 1,740.00'

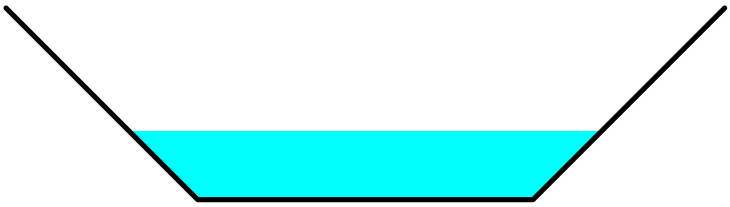
Summary for Reach 10R: stream

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 24.95 cfs @ 12.37 hrs, Volume= 5.481 af
Outflow = 24.91 cfs @ 12.38 hrs, Volume= 5.481 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.23 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.45 fps, Avg. Travel Time= 1.6 min

Peak Storage= 424 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.72' , Surface Width= 4.94'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 152.96 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 140.0' Slope= 0.1714 '/'
Inlet Invert= 1,814.00', Outlet Invert= 1,790.00'



Summary for Reach 11R: stream

Inflow Area = 39.194 ac, 8.55% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 23.37 cfs @ 12.36 hrs, Volume= 4.199 af
Outflow = 23.32 cfs @ 12.38 hrs, Volume= 4.199 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.67 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.80 fps, Avg. Travel Time= 2.8 min

Peak Storage= 808 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.72' , Surface Width= 4.45'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 145.10 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 300.0' Slope= 0.1967 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,851.00'

Summary for Reach 14R: drainage ditch

Inflow Area = 3.365 ac, 18.42% Impervious, Inflow Depth = 1.35" for 10-Year event
Inflow = 2.36 cfs @ 12.06 hrs, Volume= 0.378 af
Outflow = 2.19 cfs @ 12.15 hrs, Volume= 0.378 af, Atten= 7%, Lag= 5.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.06 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.89 fps, Avg. Travel Time= 11.2 min

Peak Storage= 434 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28' , Surface Width= 3.13'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 106.43 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 600.0' Slope= 0.1500 '/'
Inlet Invert= 2,060.00', Outlet Invert= 1,970.00'

Summary for Reach 114R: dead end channel

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 11.29 cfs @ 12.08 hrs, Volume= 2.761 af
Outflow = 11.18 cfs @ 12.09 hrs, Volume= 2.760 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.53 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.91 fps, Avg. Travel Time= 3.5 min

Peak Storage= 527 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.39' , Surface Width= 3.78'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 200.37 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 400.0' Slope= 0.3750 '/'
Inlet Invert= 1,750.00', Outlet Invert= 1,600.00'

Summary for Reach 115R: stream

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 1.30" for 10-Year event
Inflow = 24.43 cfs @ 12.37 hrs, Volume= 5.282 af
Outflow = 24.39 cfs @ 12.38 hrs, Volume= 5.282 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.07 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.45 fps, Avg. Travel Time= 1.5 min

Peak Storage= 394 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.80' , Surface Width= 4.59'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 128.34 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 130.0' Slope= 0.1538 '/'
Inlet Invert= 1,844.00', Outlet Invert= 1,824.00'

Summary for Pond 2P: Culvert 7C Driveway

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 25.19 cfs @ 12.38 hrs, Volume= 5.595 af
Primary = 25.19 cfs @ 12.38 hrs, Volume= 5.595 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 3P: Culvert 7B -Road A

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 24.95 cfs @ 12.37 hrs, Volume= 5.481 af
Primary = 24.95 cfs @ 12.37 hrs, Volume= 5.481 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 4P: trail culvert

Inflow Area = 1.420 ac, 9.79% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 2.65 cfs @ 11.99 hrs, Volume= 0.132 af
Primary = 2.65 cfs @ 11.99 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 5P: Culvert 7A

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth = 1.30" for 10-Year event
Inflow = 24.43 cfs @ 12.37 hrs, Volume= 5.282 af
Primary = 24.43 cfs @ 12.37 hrs, Volume= 5.282 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 7P: Culvert 6A

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 1.36" for 10-Year event
Inflow = 10.78 cfs @ 12.07 hrs, Volume= 2.596 af
Primary = 10.78 cfs @ 12.07 hrs, Volume= 2.596 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 8P: new 36

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 1.44" for 10-Year event
Inflow = 23.11 cfs @ 12.13 hrs, Volume= 2.055 af
Outflow = 23.11 cfs @ 12.13 hrs, Volume= 2.055 af, Atten= 0%, Lag= 0.0 min
Primary = 23.11 cfs @ 12.13 hrs, Volume= 2.055 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.95' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=22.80 cfs @ 12.13 hrs HW=1.93' (Free Discharge)
1=Culvert (Inlet Controls 22.80 cfs @ 4.73 fps)

Summary for Pond 9P: new 36

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 13.35 cfs @ 12.08 hrs, Volume= 2.901 af
Outflow = 13.35 cfs @ 12.08 hrs, Volume= 2.901 af, Atten= 0%, Lag= 0.0 min
Primary = 13.35 cfs @ 12.08 hrs, Volume= 2.901 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.42' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -1.05' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.24 cfs @ 12.08 hrs HW=1.41' (Free Discharge)
1=Culvert (Inlet Controls 13.24 cfs @ 4.05 fps)

Summary for Pond 13P: Culvert 6B

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 11.29 cfs @ 12.08 hrs, Volume= 2.761 af
Primary = 11.29 cfs @ 12.08 hrs, Volume= 2.761 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 39P: Trail culvert

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 1.59" for 10-Year event
Inflow = 0.06 cfs @ 16.75 hrs, Volume= 0.148 af
Primary = 0.06 cfs @ 16.75 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 40P: Bypass culvert

Inflow Area = 3.632 ac, 15.23% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 4.89 cfs @ 12.01 hrs, Volume= 0.498 af
Primary = 4.89 cfs @ 12.01 hrs, Volume= 0.498 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 108P: new 36

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 25.53 cfs @ 12.40 hrs, Volume= 5.751 af
Outflow = 25.53 cfs @ 12.40 hrs, Volume= 5.751 af, Atten= 0%, Lag= 0.0 min
Primary = 25.53 cfs @ 12.40 hrs, Volume= 5.751 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,742.07' @ 12.40 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,740.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,740.00' / 1,738.00' S= 0.0286 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 7.07 sf

Primary OutFlow Max=25.51 cfs @ 12.40 hrs HW=1,742.07' (Free Discharge)
1=Culvert (Inlet Controls 25.51 cfs @ 4.90 fps)

Summary for Pond P10: P10 Gravel Wetland

Inflow Area = 7.627 ac, 12.95% Impervious, Inflow Depth = 1.53" for 10-Year event
Inflow = 12.00 cfs @ 12.00 hrs, Volume= 0.975 af
Outflow = 0.12 cfs @ 24.20 hrs, Volume= 0.837 af, Atten= 99%, Lag= 732.0 min
Primary = 0.12 cfs @ 24.20 hrs, Volume= 0.837 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,977.66' Surf.Area= 6,880 sf Storage= 7,320 cf
Peak Elev= 1,981.79' @ 24.20 hrs Surf.Area= 20,945 sf Storage= 44,559 cf (37,239 cf above start)

Plug-Flow detention time= 3,448.4 min calculated for 0.669 af (69% of inflow)
Center-of-Mass det. time= 2,748.4 min (3,593.5 - 845.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,975.00'	10,093 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,975.00'	10,093 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,979.50'	52,918 cf	**Ponding (Irregular)**Listed below (Recalc)
		73,103 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,979.50	9,252	409.5	0	0	9,252
1,981.00	11,159	437.8	15,286	15,286	11,263
1,983.00	13,000	460.0	24,136	39,422	13,086
1,984.00	14,000	490.0	13,497	52,918	15,403

Device	Routing	Invert	Outlet Devices
#1	Primary	1,977.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,977.00' / 1,976.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,977.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,982.40'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,983.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.12 cfs @ 24.20 hrs HW=1,981.79' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.12 cfs of 23.25 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 9.71 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,977.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P17: P17 Gravel Wetland

Inflow Area = 3.475 ac, 32.52% Impervious, Inflow Depth = 1.53" for 10-Year event
Inflow = 10.03 cfs @ 11.93 hrs, Volume= 0.442 af
Outflow = 0.09 cfs @ 23.98 hrs, Volume= 0.442 af, Atten= 99%, Lag= 723.0 min
Primary = 0.09 cfs @ 23.98 hrs, Volume= 0.442 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,874.66' Surf.Area= 4,642 sf Storage= 4,939 cf
Peak Elev= 1,877.25' @ 23.98 hrs Surf.Area= 15,237 sf Storage= 20,052 cf (15,113 cf above start)

Plug-Flow detention time= 2,431.7 min calculated for 0.328 af (74% of inflow)
Center-of-Mass det. time= 1,813.3 min (2,646.7 - 833.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,872.00'	6,972 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,872.00'	6,921 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,876.50'	13,117 cf	**Ponding (Irregular)**Listed below (Recalc)
		27,010 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,322	197.0	0.0	0	0	2,322
1,875.00	2,322	197.0	40.0	2,786	2,786	2,913
1,876.50	3,286	231.9	100.0	4,185	6,972	4,147

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,320	184.0	0.0	0	0	2,320
1,875.00	2,320	184.0	40.0	2,784	2,784	2,872
1,876.50	3,220	216.4	100.0	4,137	6,921	3,947

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.50	7,778	425.6	0	0	7,778
1,878.00	9,749	453.2	13,117	13,117	9,818

Device	Routing	Invert	Outlet Devices
#1	Primary	1,874.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,874.00' / 1,873.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,874.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,877.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,878.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 23.98 hrs HW=1,877.25' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.09 cfs of 17.90 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 7.65 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,874.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P2: Townhomes 3-6 Gravel Wetland

Inflow Area = 3.201 ac, 25.65% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 6.75 cfs @ 12.03 hrs, Volume= 0.379 af
Outflow = 0.22 cfs @ 15.40 hrs, Volume= 0.379 af, Atten= 97%, Lag= 202.4 min
Primary = 0.15 cfs @ 15.40 hrs, Volume= 0.353 af
Secondary = 0.07 cfs @ 15.40 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,746.66' Surf.Area= 3,892 sf Storage= 4,141 cf
Peak Elev= 1,749.02' @ 15.40 hrs Surf.Area= 13,176 sf Storage= 15,552 cf (11,411 cf above start)

Plug-Flow detention time= 2,496.7 min calculated for 0.284 af (75% of inflow)
Center-of-Mass det. time= 1,838.3 min (2,685.0 - 846.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,744.00'	5,915 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,744.00'	5,845 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,748.50'	11,773 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,949	182.2	0.0	0	0	1,949
1,747.00	1,949	182.2	40.0	2,339	2,339	2,496
1,748.50	2,848	217.0	100.0	3,577	5,915	3,641

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,943	166.6	0.0	0	0	1,943
1,747.00	1,943	166.6	40.0	2,332	2,332	2,443
1,748.50	2,765	198.6	100.0	3,513	5,845	3,412

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.50	6,943	396.4	0	0	6,943
1,750.00	8,791	424.7	11,773	11,773	8,892

Device	Routing	Invert	Outlet Devices
#1	Primary	1,746.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,746.00' / 1,745.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,746.66'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,749.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,749.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.13 cfs @ 15.40 hrs HW=1,749.02' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.13 cfs of 16.99 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 7.32 fps)
  └**3=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.50 fps)

Secondary OutFlow Max=0.05 cfs @ 15.40 hrs HW=1,749.02' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.05 cfs @ 0.37 fps)

Summary for Pond P3: P3 Gravel Wetland

Inflow Area = 7.379 ac, 15.26% Impervious, Inflow Depth = 1.50" for 10-Year event
Inflow = 17.27 cfs @ 11.95 hrs, Volume= 0.923 af
Outflow = 0.11 cfs @ 24.07 hrs, Volume= 0.805 af, Atten= 99%, Lag= 727.5 min
Primary = 0.11 cfs @ 24.07 hrs, Volume= 0.805 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.66' Surf.Area= 6,574 sf Storage= 6,995 cf
Peak Elev= 1,754.30' @ 24.07 hrs Surf.Area= 23,541 sf Storage= 42,286 cf (35,291 cf above start)

Plug-Flow detention time= 3,475.9 min calculated for 0.644 af (70% of inflow)
Center-of-Mass det. time= 2,775.6 min (3,614.2 - 838.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,748.00'	9,662 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,748.00'	9,662 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,752.50'	61,673 cf	**Ponding (Irregular)**Listed below (Recalc)
		80,998 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,752.50	10,828	401.5	0	0	10,828
1,754.00	14,121	764.7	18,657	18,657	44,545
1,756.50	20,489	895.0	43,016	61,673	61,879

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,749.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,750.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,754.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,755.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.11 cfs @ 24.07 hrs HW=1,754.30' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.11 cfs of 21.69 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.11 cfs @ 9.10 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P4: P4 VSF

Inflow Area = 2.468 ac, 22.97% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 5.73 cfs @ 11.91 hrs, Volume= 0.321 af
Outflow = 0.08 cfs @ 20.62 hrs, Volume= 0.321 af, Atten= 99%, Lag= 522.4 min
Primary = 0.08 cfs @ 20.62 hrs, Volume= 0.321 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,799.33' Surf.Area= 2,868 sf Storage= 379 cf
Peak Elev= 1,803.96' @ 20.62 hrs Surf.Area= 4,600 sf Storage= 10,712 cf (10,334 cf above start)

Plug-Flow detention time= 1,476.3 min calculated for 0.312 af (97% of inflow)
Center-of-Mass det. time= 1,418.1 min (2,246.3 - 828.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,799.00'	36,922 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,799.00	2,868	235.8	0.0	0	0	2,868
1,800.50	2,868	235.8	40.0	1,721	1,721	3,222
1,802.00	2,868	235.8	40.0	1,721	3,442	3,575
1,804.00	4,635	289.1	100.0	7,433	10,874	5,863
1,806.00	6,481	326.2	100.0	11,065	21,939	7,781
1,808.00	8,550	363.4	100.0	14,983	36,922	9,935

Device	Routing	Invert	Outlet Devices
#1	Primary	1,799.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,799.00' / 1,797.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,799.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,805.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,805.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.08 cfs @ 20.62 hrs HW=1,803.96' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.08 cfs of 9.72 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.31 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,799.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P5: Roads A and F Soil Filter

Inflow Area = 2.412 ac, 25.58% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 6.71 cfs @ 11.93 hrs, Volume= 0.286 af
Outflow = 0.08 cfs @ 20.22 hrs, Volume= 0.286 af, Atten= 99%, Lag= 497.2 min
Primary = 0.08 cfs @ 20.22 hrs, Volume= 0.286 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,831.33' Surf.Area= 2,838 sf Storage= 375 cf
Peak Elev= 1,835.71' @ 20.22 hrs Surf.Area= 4,251 sf Storage= 9,424 cf (9,049 cf above start)

Plug-Flow detention time= 1,363.1 min calculated for 0.277 af (97% of inflow)
Center-of-Mass det. time= 1,303.4 min (2,142.6 - 839.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,831.00'	21,966 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,831.00	2,838	261.4	0.0	0	0	2,838
1,832.50	2,838	261.4	40.0	1,703	1,703	3,230
1,834.00	2,838	261.4	40.0	1,703	3,406	3,622
1,836.00	4,520	299.0	100.0	7,293	10,699	5,390
1,838.00	6,826	390.0	100.0	11,267	21,966	10,427

Device	Routing	Invert	Outlet Devices
#1	Primary	1,830.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,830.00' / 1,828.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,831.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,836.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,837.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.08 cfs @ 20.22 hrs HW=1,835.71' (Free Discharge)
└**1=Culvert** (Passes 0.08 cfs of 14.96 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 10.02 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,831.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P8: P8 Gravel Wetland

Inflow Area = 1.628 ac, 46.93% Impervious, Inflow Depth = 1.85" for 10-Year event
Inflow = 5.76 cfs @ 11.91 hrs, Volume= 0.251 af
Outflow = 0.04 cfs @ 23.99 hrs, Volume= 0.251 af, Atten= 99%, Lag= 724.7 min
Primary = 0.04 cfs @ 23.99 hrs, Volume= 0.251 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,927.66' Surf.Area= 2,506 sf Storage= 2,666 cf
Peak Elev= 1,930.23' @ 23.99 hrs Surf.Area= 9,639 sf Storage= 11,714 cf (9,048 cf above start)

Plug-Flow detention time= 3,057.3 min calculated for 0.190 af (75% of inflow)
Center-of-Mass det. time= 2,337.8 min (3,157.5 - 819.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,925.00'	3,942 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,925.00'	3,871 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,929.50'	15,570 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,382 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	152.0	0.0	0	0	1,253
1,928.00	1,253	152.0	40.0	1,504	1,504	1,709
1,929.50	2,029	192.4	100.0	2,438	3,942	2,846

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	134.0	0.0	0	0	1,253
1,928.00	1,253	134.0	40.0	1,504	1,504	1,655
1,929.50	1,927	165.0	100.0	2,367	3,871	2,426

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,929.50	4,972	320.0	0	0	4,972
1,931.00	6,477	348.7	8,562	8,562	6,579
1,932.00	7,552	367.5	7,008	15,570	7,709

Device	Routing	Invert	Outlet Devices
#1	Primary	1,927.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,927.00' / 1,926.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,927.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,930.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,930.50'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64

2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.04 cfs @ 23.99 hrs HW=1,930.23' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.04 cfs of 17.85 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.66 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,927.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P9: Lot R51 Soil Filter

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 1.59" for 10-Year event
Inflow = 3.16 cfs @ 11.93 hrs, Volume= 0.148 af
Outflow = 0.06 cfs @ 16.75 hrs, Volume= 0.148 af, Atten= 98%, Lag= 289.4 min
Primary = 0.06 cfs @ 16.75 hrs, Volume= 0.148 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,941.33' Surf.Area= 1,440 sf Storage= 190 cf
Peak Elev= 1,945.50' @ 16.75 hrs Surf.Area= 2,301 sf Storage= 4,511 cf (4,321 cf above start)

Plug-Flow detention time= 980.2 min calculated for 0.144 af (97% of inflow)
Center-of-Mass det. time= 931.1 min (1,758.6 - 827.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,941.00'	22,064 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,941.00	1,440	179.7	0.0	0	0	1,440
1,942.50	1,440	179.7	40.0	864	864	1,710
1,944.00	1,440	179.7	40.0	864	1,728	1,979
1,946.00	2,631	217.4	100.0	4,012	5,740	3,235
1,948.00	4,049	255.1	100.0	6,629	12,369	4,729
1,950.00	5,693	292.8	100.0	9,695	22,064	6,462

Device	Routing	Invert	Outlet Devices
#1	Primary	1,940.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,940.00' / 1,938.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,941.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,941.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,945.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,945.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.05 cfs @ 16.75 hrs HW=1,945.50' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.05 cfs of 25.34 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.78 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.16 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.11 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,941.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 1: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=1,953.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 10: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,933.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,933.57' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 11: Small Rain Garden

Inflow Area = 0.389 ac, 41.13% Impervious, Inflow Depth = 1.77" for 10-Year event
Inflow = 1.19 cfs @ 11.97 hrs, Volume= 0.058 af
Outflow = 0.08 cfs @ 12.80 hrs, Volume= 0.058 af, Atten= 93%, Lag= 49.7 min
Primary = 0.08 cfs @ 12.80 hrs, Volume= 0.058 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,073.52' @ 12.80 hrs Surf.Area= 977 sf Storage= 1,410 cf (1,306 cf above start)

Plug-Flow detention time= 365.5 min calculated for 0.055 af (96% of inflow)
Center-of-Mass det. time= 320.6 min (1,147.5 - 826.9)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	790	0.0	0	0
2,071.50	790	40.0	474	474
2,073.00	790	40.0	474	948
2,074.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.07 cfs @ 12.80 hrs HW=2,073.52' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.07 cfs of 11.19 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.55 fps)
    └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.02 cfs @ 0.50 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 12: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,073.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=2,073.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 13: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 1.89 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af, Atten= 94%, Lag= 67.6 min
Primary = 0.10 cfs @ 13.10 hrs, Volume= 0.091 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,073.54' @ 13.10 hrs Surf.Area= 1,563 sf Storage= 2,361 cf (2,187 cf above start)

Plug-Flow detention time= 586.4 min calculated for 0.087 af (96% of inflow)
Center-of-Mass det. time= 531.1 min (1,367.5 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 13.10 hrs HW=2,073.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 14: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af
Outflow = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af, Atten= 95%, Lag= 76.4 min
Primary = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,953.55' @ 13.25 hrs Surf.Area= 1,899 sf Storage= 2,918 cf (2,703 cf above start)

Plug-Flow detention time= 698.6 min calculated for 0.105 af (95% of inflow)
Center-of-Mass det. time= 638.9 min (1,475.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.11 cfs @ 13.25 hrs HW=1,953.55' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.11 cfs of 11.23 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.58 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.70 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 15: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 2.28 cfs @ 11.97 hrs, Volume= 0.110 af
Outflow = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af, Atten= 95%, Lag= 76.4 min
Primary = 0.12 cfs @ 13.25 hrs, Volume= 0.110 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,953.55' @ 13.25 hrs Surf.Area= 1,899 sf Storage= 2,918 cf (2,703 cf above start)

Plug-Flow detention time= 698.6 min calculated for 0.105 af (95% of inflow)
Center-of-Mass det. time= 638.9 min (1,475.3 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.11 cfs @ 13.25 hrs HW=1,953.55' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.11 cfs of 11.23 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.58 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.13 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.70 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 2: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=1,953.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 21: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 2.32 cfs @ 11.97 hrs, Volume= 0.113 af
Outflow = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af, Atten= 83%, Lag= 12.7 min
Primary = 0.40 cfs @ 12.18 hrs, Volume= 0.113 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,933.64' @ 12.18 hrs Surf.Area= 1,607 sf Storage= 2,520 cf (2,346 cf above start)

Plug-Flow detention time= 494.8 min calculated for 0.109 af (96% of inflow)
Center-of-Mass det. time= 451.5 min (1,271.8 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	1,321	0.0	0	0
1,931.50	1,321	40.0	793	793
1,933.00	1,321	40.0	793	1,585
1,934.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.40 cfs @ 12.18 hrs HW=1,933.64' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.40 cfs of 11.42 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.70 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.35 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 3: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,953.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 4: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,953.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 51: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af
Outflow = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af, Atten= 95%, Lag= 83.6 min
Primary = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.51' @ 13.37 hrs Surf.Area= 972 sf Storage= 1,398 cf (1,293 cf above start)

Plug-Flow detention time= 374.8 min calculated for 0.053 af (96% of inflow)
Center-of-Mass det. time= 328.2 min (1,158.3 - 830.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.05 cfs @ 13.37 hrs HW=1,953.51' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 11.16 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.53 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.33 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 52: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 1.70" for 10-Year event
Inflow = 1.14 cfs @ 11.97 hrs, Volume= 0.055 af
Outflow = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af, Atten= 95%, Lag= 83.6 min
Primary = 0.05 cfs @ 13.37 hrs, Volume= 0.055 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.51' @ 13.37 hrs Surf.Area= 972 sf Storage= 1,398 cf (1,293 cf above start)

Plug-Flow detention time= 374.8 min calculated for 0.053 af (96% of inflow)
Center-of-Mass det. time= 328.2 min (1,158.3 - 830.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.05 cfs @ 13.37 hrs HW=1,953.51' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.05 cfs of 11.16 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.53 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.33 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 6: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,953.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 7: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,953.57' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 8: Small Rain Garden

Inflow Area = 0.407 ac, 41.28% Impervious, Inflow Depth = 1.77" for 10-Year event
Inflow = 1.24 cfs @ 11.97 hrs, Volume= 0.060 af
Outflow = 0.11 cfs @ 12.53 hrs, Volume= 0.060 af, Atten= 91%, Lag= 33.6 min
Primary = 0.11 cfs @ 12.53 hrs, Volume= 0.060 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.54' @ 12.53 hrs Surf.Area= 982 sf Storage= 1,426 cf (1,322 cf above start)

Plug-Flow detention time= 356.5 min calculated for 0.058 af (96% of inflow)
Center-of-Mass det. time= 313.7 min (1,140.7 - 826.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.10 cfs @ 12.53 hrs HW=1,953.54' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.10 cfs of 11.22 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.57 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.65 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 9: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.01" for 10-Year event
Inflow = 1.34 cfs @ 11.97 hrs, Volume= 0.065 af
Outflow = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af, Atten= 86%, Lag= 15.9 min
Primary = 0.19 cfs @ 12.23 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,933.57' @ 12.23 hrs Surf.Area= 995 sf Storage= 1,461 cf (1,357 cf above start)

Plug-Flow detention time= 333.3 min calculated for 0.063 af (96% of inflow)
Center-of-Mass det. time= 294.3 min (1,111.2 - 816.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.19 cfs @ 12.23 hrs HW=1,933.57' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.19 cfs of 11.29 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.62 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.14 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Link SP14:

Inflow Area = 1.238 ac, 3.31% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.147 af
Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 1.34" for 10-Year event
Inflow = 13.35 cfs @ 12.08 hrs, Volume= 2.901 af
Primary = 13.35 cfs @ 12.08 hrs, Volume= 2.901 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 1.345 ac, 7.96% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 2.12 cfs @ 12.09 hrs, Volume= 0.145 af
Primary = 2.12 cfs @ 12.09 hrs, Volume= 0.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 4.417 ac, 23.41% Impervious, Inflow Depth > 1.46" for 10-Year event
Inflow = 3.71 cfs @ 11.94 hrs, Volume= 0.537 af
Primary = 3.71 cfs @ 11.94 hrs, Volume= 0.537 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 0.207 ac, 10.14% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 0.60 cfs @ 11.95 hrs, Volume= 0.027 af
Primary = 0.60 cfs @ 11.95 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 0.585 ac, 4.10% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 1.08 cfs @ 12.04 hrs, Volume= 0.063 af
Primary = 1.08 cfs @ 12.04 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth = 1.29" for 10-Year event
Inflow = 25.53 cfs @ 12.40 hrs, Volume= 5.751 af
Primary = 25.53 cfs @ 12.40 hrs, Volume= 5.751 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 7.645 ac, 14.99% Impervious, Inflow Depth > 1.31" for 10-Year event
Inflow = 0.65 cfs @ 12.04 hrs, Volume= 0.838 af
Primary = 0.65 cfs @ 12.04 hrs, Volume= 0.838 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 0.225 ac, 11.11% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 0.49 cfs @ 12.05 hrs, Volume= 0.029 af
Primary = 0.49 cfs @ 12.05 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 0.280 ac, 13.93% Impervious, Inflow Depth = 1.56" for 10-Year event
Inflow = 0.66 cfs @ 12.02 hrs, Volume= 0.036 af
Primary = 0.66 cfs @ 12.02 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 1.44" for 10-Year event
Inflow = 23.11 cfs @ 12.13 hrs, Volume= 2.055 af
Primary = 23.11 cfs @ 12.13 hrs, Volume= 2.055 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Time span=0.00-120.00 hrs, dt=0.05 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment14: WS 14 Runoff Area=1.238 ac 3.31% Impervious Runoff Depth=2.05"
Flow Length=624' Tc=16.0 min CN=78 Runoff=3.15 cfs 0.211 af

Subcatchment15: WS 15 Runoff Area=1.306 ac 1.30% Impervious Runoff Depth=1.89"
Flow Length=624' Tc=13.7 min CN=76 Runoff=3.31 cfs 0.206 af

Subcatchment15A: WS 15A Runoff Area=1.785 ac 7.79% Impervious Runoff Depth=1.67"
Flow Length=376' Tc=3.1 min CN=73 Runoff=5.80 cfs 0.249 af

Subcatchment15B: WS 15B Runoff Area=3.249 ac 1.72% Impervious Runoff Depth=1.53"
Flow Length=689' Tc=14.3 min CN=71 Runoff=6.40 cfs 0.415 af

Subcatchment15C: WS 15C Runoff Area=0.503 ac 7.36% Impervious Runoff Depth=1.67"
Flow Length=244' Tc=1.2 min CN=73 Runoff=1.67 cfs 0.070 af

Subcatchment15C1: WS 15C1 Runoff Area=0.234 ac 0.00% Impervious Runoff Depth=1.53"
Flow Length=241' Tc=12.1 min CN=71 Runoff=0.50 cfs 0.030 af

Subcatchment15D: WS 15D Runoff Area=0.408 ac 0.00% Impervious Runoff Depth=1.53"
Flow Length=111' Slope=0.5100 '/' Tc=6.2 min CN=71 Runoff=1.08 cfs 0.052 af

Subcatchment15E: WS 15E Runoff Area=0.711 ac 38.12% Impervious Runoff Depth=2.64"
Flow Length=427' Tc=1.8 min CN=85 Runoff=3.51 cfs 0.156 af

Subcatchment15F: WS 15F Runoff Area=2.145 ac 0.05% Impervious Runoff Depth=2.05"
Flow Length=584' Slope=0.1400 '/' Tc=9.2 min CN=78 Runoff=6.87 cfs 0.366 af

Subcatchment15G: WS 15G Runoff Area=1.566 ac 0.00% Impervious Runoff Depth=1.60"
Flow Length=619' Tc=12.5 min CN=72 Runoff=3.46 cfs 0.209 af

Subcatchment16: WS 16 Runoff Area=1.345 ac 7.96% Impervious Runoff Depth=1.89"
Flow Length=640' Tc=16.1 min CN=76 Runoff=3.14 cfs 0.212 af

Subcatchment17: WS 17 Runoff Area=1.216 ac 17.52% Impervious Runoff Depth=2.21"
Flow Length=404' Tc=2.9 min CN=80 Runoff=5.17 cfs 0.224 af

Subcatchment17A: WS 17A Runoff Area=3.201 ac 25.65% Impervious Runoff Depth=2.05"
Flow Length=435' Tc=10.5 min CN=78 Runoff=9.74 cfs 0.546 af

Subcatchment17B: WS 17B Runoff Area=2.412 ac 25.58% Impervious Runoff Depth=2.05"
Flow Length=677' Tc=2.4 min CN=78 Runoff=9.60 cfs 0.412 af

Subcatchment17C: WS 17C Runoff Area=1.420 ac 9.79% Impervious Runoff Depth=1.67"
Flow Length=465' Tc=6.9 min CN=73 Runoff=4.03 cfs 0.198 af

Subcatchment17D: WS 17D Runoff Area=1.794 ac 20.79% Impervious Runoff Depth=1.89"
Flow Length=855' Tc=1.5 min CN=76 Runoff=6.62 cfs 0.283 af

Subcatchment17E: WS 17E Runoff Area=2.734 ac 36.14% Impervious Runoff Depth=2.55"
Flow Length=1,721' Tc=6.3 min CN=84 Runoff=11.69 cfs 0.581 af

Subcatchment17F: WS 17F Runoff Area=4.893 ac 0.00% Impervious Runoff Depth=1.97"
Flow Length=899' Tc=22.7 min CN=77 Runoff=9.85 cfs 0.803 af

Subcatchment18: WS 18 Runoff Area=0.207 ac 10.14% Impervious Runoff Depth=2.21"
Flow Length=157' Tc=4.2 min CN=80 Runoff=0.85 cfs 0.038 af

Subcatchment19: WS 19 Runoff Area=0.585 ac 4.10% Impervious Runoff Depth=1.89"
Flow Length=455' Tc=11.5 min CN=76 Runoff=1.60 cfs 0.092 af

Subcatchment20: WS 20 Runoff Area=1.316 ac 5.85% Impervious Runoff Depth=2.05"
Flow Length=426' Tc=6.0 min CN=78 Runoff=4.64 cfs 0.225 af

Subcatchment20A: WS 20A Runoff Area=1.160 ac 12.67% Impervious Runoff Depth=1.74"
Flow Length=330' Tc=3.3 min CN=74 Runoff=3.91 cfs 0.169 af

Subcatchment20B: WS 20B Runoff Area=0.730 ac 7.40% Impervious Runoff Depth=1.67"
Flow Length=216' Tc=5.5 min CN=73 Runoff=2.15 cfs 0.102 af

Subcatchment20C: WS 20C Runoff Area=1.681 ac 45.03% Impervious Runoff Depth=2.46"
Flow Length=450' Tc=3.7 min CN=83 Runoff=7.73 cfs 0.345 af

Subcatchment20D: WS 20D Runoff Area=11.452 ac 0.56% Impervious Runoff Depth=1.74"
Flow Length=1,926' Tc=28.2 min CN=74 Runoff=17.55 cfs 1.665 af

Subcatchment20E: WS 20E Runoff Area=1.398 ac 0.00% Impervious Runoff Depth=1.67"
Flow Length=331' Tc=13.8 min CN=73 Runoff=3.09 cfs 0.195 af

Subcatchment21: WS 21 Runoff Area=0.266 ac 7.52% Impervious Runoff Depth=2.13"
Flow Length=242' Tc=11.6 min CN=79 Runoff=0.81 cfs 0.047 af

Subcatchment21A: WS 21A Runoff Area=5.281 ac 20.37% Impervious Runoff Depth=2.37"
Flow Length=593' Tc=4.1 min CN=82 Runoff=23.23 cfs 1.045 af

Subcatchment21B: WS 21B Runoff Area=2.098 ac 2.38% Impervious Runoff Depth=1.53"
Flow Length=624' Tc=25.2 min CN=71 Runoff=2.98 cfs 0.268 af

Subcatchment21C: WS 21C Runoff Area=21.265 ac 6.68% Impervious Runoff Depth=1.82"
Flow Length=2,762' Tc=53.8 min CN=75 Runoff=21.71 cfs 3.222 af

Subcatchment21D: WS 21D Runoff Area=4.433 ac 6.32% Impervious Runoff Depth=1.60"
Flow Length=674' Tc=2.9 min CN=72 Runoff=13.85 cfs 0.592 af

Subcatchment21E: WS 21E Runoff Area=1.628 ac 46.93% Impervious Runoff Depth=2.55"
Flow Length=453' Tc=1.7 min CN=84 Runoff=7.83 cfs 0.346 af

Subcatchment22: WS 22 Runoff Area=0.225 ac 11.11% Impervious Runoff Depth=2.21"
Flow Length=208' Tc=12.3 min CN=80 Runoff=0.70 cfs 0.041 af

Subcatchment23: WS 23 Runoff Area=0.280 ac 13.93% Impervious Runoff Depth=2.21"
Flow Length=285' Tc=10.2 min CN=80 Runoff=0.93 cfs 0.052 af

Subcatchment23A: WS 23A Runoff Area=1.267 ac 44.75% Impervious Runoff Depth=2.82"
Flow Length=362' Tc=1.3 min CN=87 Runoff=6.77 cfs 0.298 af

Subcatchment23B: WS 23B Runoff Area=1.201 ac 0.00% Impervious Runoff Depth=1.53"
Flow Length=467' Tc=12.6 min CN=71 Runoff=2.52 cfs 0.153 af

Subcatchment24: WS 24 Runoff Area=14.634 ac 3.97% Impervious Runoff Depth=2.05"
Flow Length=2,578' Tc=19.4 min CN=78 Runoff=33.64 cfs 2.497 af

SubcatchmentR1: R1 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR10: R10 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR11: R11 Runoff Area=0.389 ac 41.13% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=83 Runoff=1.63 cfs 0.080 af

SubcatchmentR12: R12 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR13: R13 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=2.67 cfs 0.130 af

SubcatchmentR14: R14 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=3.22 cfs 0.156 af

SubcatchmentR15: R15 Runoff Area=0.849 ac 35.10% Impervious Runoff Depth=2.21"
Tc=6.0 min CN=80 Runoff=3.22 cfs 0.156 af

SubcatchmentR2: R2 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR21: R21 Runoff Area=0.705 ac 32.62% Impervious Runoff Depth=2.64"
Tc=6.0 min CN=85 Runoff=3.14 cfs 0.155 af

SubcatchmentR3: R3 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR4: R4 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

SubcatchmentR51: R51 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=1.59 cfs 0.077 af

SubcatchmentR52: R52 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=82 Runoff=1.59 cfs 0.077 af

Subcatchment R6: R6 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

Subcatchment R7: R7 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

Subcatchment R8: R8 Runoff Area=0.407 ac 41.28% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=83 Runoff=1.71 cfs 0.083 af

Subcatchment R9: R9 Runoff Area=0.391 ac 41.18% Impervious Runoff Depth=2.73"
Tc=6.0 min CN=86 Runoff=1.79 cfs 0.089 af

Reach 6R: stream Avg. Flow Depth=0.69' Max Vel=7.73 fps Inflow=19.64 cfs 3.691 af
n=0.050 L=280.0' S=0.1643 '/' Capacity=132.62 cfs Outflow=19.43 cfs 3.690 af

Reach 8R: ditch to stream Avg. Flow Depth=0.53' Max Vel=7.25 fps Inflow=13.58 cfs 2.865 af
n=0.050 L=475.0' S=0.1937 '/' Capacity=144.00 cfs Outflow=13.33 cfs 2.864 af

Reach 9R: stream Avg. Flow Depth=1.00' Max Vel=8.94 fps Inflow=40.30 cfs 8.173 af
n=0.050 L=330.0' S=0.1424 '/' Capacity=139.42 cfs Outflow=40.24 cfs 8.173 af

Reach 10R: stream Avg. Flow Depth=0.94' Max Vel=9.51 fps Inflow=39.91 cfs 8.005 af
n=0.050 L=140.0' S=0.1714 '/' Capacity=152.96 cfs Outflow=39.87 cfs 8.004 af

Reach 11R: stream Avg. Flow Depth=0.95' Max Vel=9.99 fps Inflow=37.50 cfs 6.143 af
n=0.050 L=300.0' S=0.1967 '/' Capacity=145.10 cfs Outflow=37.42 cfs 6.143 af

Reach 14R: drainage ditch Avg. Flow Depth=0.44' Max Vel=3.88 fps Inflow=5.21 cfs 0.548 af
n=0.069 L=600.0' S=0.1500 '/' Capacity=106.43 cfs Outflow=4.88 cfs 0.548 af

Reach 114R: dead end channel Avg. Flow Depth=0.55' Max Vel=10.34 fps Inflow=20.29 cfs 3.939 af
n=0.050 L=400.0' S=0.3750 '/' Capacity=200.37 cfs Outflow=19.99 cfs 3.939 af

Reach 115R: stream Avg. Flow Depth=1.04' Max Vel=9.26 fps Inflow=39.10 cfs 7.705 af
n=0.050 L=130.0' S=0.1538 '/' Capacity=128.34 cfs Outflow=39.07 cfs 7.705 af

Pond 2P: Culvert 7C Driveway Inflow=40.30 cfs 8.173 af
Primary=40.30 cfs 8.173 af

Pond 3P: Culvert 7B -Road A Inflow=39.91 cfs 8.005 af
Primary=39.91 cfs 8.005 af

Pond 4P: trail culvert Inflow=4.03 cfs 0.198 af
Primary=4.03 cfs 0.198 af

Pond 5P: Culvert 7A Inflow=39.10 cfs 7.705 af
Primary=39.10 cfs 7.705 af

Pond 7P: Culvert 6A Inflow=19.64 cfs 3.691 af
Primary=19.64 cfs 3.691 af

Pond 8P: new 36 Peak Elev=2.49' Inflow=33.72 cfs 2.948 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0400 '/' Outflow=33.72 cfs 2.948 af

Pond 9P: new 36 Peak Elev=1.94' Inflow=22.98 cfs 4.145 af
36.0" Round Culvert n=0.013 L=70.0' S=0.0150 '/' Outflow=22.98 cfs 4.145 af

Pond 13P: Culvert 6B Inflow=20.29 cfs 3.939 af
Primary=20.29 cfs 3.939 af

Pond 39P: Trail culvert Inflow=0.55 cfs 0.208 af
Primary=0.55 cfs 0.208 af

Pond 40P: Bypass culvert Inflow=9.30 cfs 0.699 af
Primary=9.30 cfs 0.699 af

Pond 108P: new 36 Peak Elev=1,742.92' Inflow=40.81 cfs 8.398 af
36.0" Round Culvert n=0.025 L=70.0' S=0.0286 '/' Outflow=40.81 cfs 8.398 af

Pond P10: P10 Gravel Wetland Peak Elev=1,982.47' Storage=52,817 cf Inflow=16.99 cfs 1.384 af
Primary=0.59 cfs 1.155 af Secondary=0.00 cfs 0.000 af Outflow=0.59 cfs 1.155 af

Pond P17: P17 Gravel Wetland Peak Elev=1,877.74' Storage=24,519 cf Inflow=14.12 cfs 0.628 af
Primary=0.30 cfs 0.627 af Secondary=0.00 cfs 0.000 af Outflow=0.30 cfs 0.627 af

Pond P2: Townhomes 3-6 Gravel Wetland Peak Elev=1,749.11' Storage=16,197 cf Inflow=9.74 cfs 0.546 af
Primary=0.79 cfs 0.452 af Secondary=0.52 cfs 0.094 af Outflow=1.32 cfs 0.546 af

Pond P3: P3 Gravel Wetland Peak Elev=1,754.69' Storage=48,213 cf Inflow=24.15 cfs 1.313 af
Primary=0.68 cfs 1.134 af Secondary=0.00 cfs 0.000 af Outflow=0.68 cfs 1.134 af

Pond P4: P4 VSF Peak Elev=1,804.98' Storage=15,844 cf Inflow=7.90 cfs 0.451 af
Primary=0.09 cfs 0.451 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.451 af

Pond P5: Roads A and F Soil Filter Peak Elev=1,836.75' Storage=14,379 cf Inflow=9.60 cfs 0.412 af
Primary=0.09 cfs 0.411 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.411 af

Pond P8: P8 Gravel Wetland Peak Elev=1,930.52' Storage=13,411 cf Inflow=7.83 cfs 0.346 af
Primary=0.13 cfs 0.321 af Secondary=0.06 cfs 0.022 af Outflow=0.19 cfs 0.343 af

Pond P9: Lot R51 Soil Filter Peak Elev=1,945.58' Storage=4,696 cf Inflow=4.40 cfs 0.208 af
Primary=0.55 cfs 0.208 af Secondary=0.00 cfs 0.000 af Outflow=0.55 cfs 0.208 af

Pond RG 1: Medium Rain Garden Peak Elev=1,953.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 10: Small Rain Garden Peak Elev=1,933.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 11: Small Rain Garden Peak Elev=2,073.69' Storage=1,579 cf Inflow=1.63 cfs 0.080 af
Primary=0.62 cfs 0.080 af Secondary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.080 af

Pond RG 12: Medium Rain Garden Peak Elev=2,073.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 13: Medium Rain Garden Peak Elev=2,073.72' Storage=2,657 cf Inflow=2.67 cfs 0.130 af
Primary=0.77 cfs 0.130 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.130 af

Pond RG 14: Large Rain Garden Peak Elev=1,953.72' Storage=3,264 cf Inflow=3.22 cfs 0.156 af
Primary=0.77 cfs 0.156 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.156 af

Pond RG 15: Large Rain Garden Peak Elev=1,953.72' Storage=3,264 cf Inflow=3.22 cfs 0.156 af
Primary=0.77 cfs 0.156 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.156 af

Pond RG 2: Medium Rain Garden Peak Elev=1,953.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 21: Medium Rain Garden Peak Elev=1,933.95' Storage=3,037 cf Inflow=3.14 cfs 0.155 af
Primary=1.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.155 af

Pond RG 3: Small Rain Garden Peak Elev=1,953.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 4: Small Rain Garden Peak Elev=1,953.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 51: Small Rain Garden Peak Elev=1,953.67' Storage=1,557 cf Inflow=1.59 cfs 0.077 af
Primary=0.53 cfs 0.077 af Secondary=0.00 cfs 0.000 af Outflow=0.53 cfs 0.077 af

Pond RG 52: Small Rain Garden Peak Elev=1,953.67' Storage=1,557 cf Inflow=1.59 cfs 0.077 af
Primary=0.53 cfs 0.077 af Secondary=0.00 cfs 0.000 af Outflow=0.53 cfs 0.077 af

Pond RG 6: Small Rain Garden Peak Elev=1,953.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 7: Small Rain Garden Peak Elev=1,953.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Pond RG 8: Small Rain Garden Peak Elev=1,953.72' Storage=1,605 cf Inflow=1.71 cfs 0.083 af
Primary=0.74 cfs 0.083 af Secondary=0.00 cfs 0.000 af Outflow=0.74 cfs 0.083 af

Pond RG 9: Small Rain Garden Peak Elev=1,933.78' Storage=1,674 cf Inflow=1.79 cfs 0.089 af
Primary=0.96 cfs 0.089 af Secondary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.089 af

Link SP14: Inflow=3.15 cfs 0.211 af
Primary=3.15 cfs 0.211 af

Link SP15: Inflow=22.98 cfs 4.145 af
Primary=22.98 cfs 4.145 af

Link SP16: Inflow=3.14 cfs 0.212 af
Primary=3.14 cfs 0.212 af

Link SP17: Inflow=5.21 cfs 0.769 af
Primary=5.21 cfs 0.769 af

Link SP18: Inflow=0.85 cfs 0.038 af
Primary=0.85 cfs 0.038 af

Link SP19: Inflow=1.60 cfs 0.092 af
Primary=1.60 cfs 0.092 af

Link SP20: Inflow=40.81 cfs 8.398 af
Primary=40.81 cfs 8.398 af

Link SP21: Inflow=0.91 cfs 1.181 af
Primary=0.91 cfs 1.181 af

Link SP22: Inflow=0.70 cfs 0.041 af
Primary=0.70 cfs 0.041 af

Link SP23: Inflow=0.93 cfs 0.052 af
Primary=0.93 cfs 0.052 af

Link SP24: Inflow=33.72 cfs 2.948 af
Primary=33.72 cfs 2.948 af

Total Runoff Area = 112.414 ac Runoff Volume = 18.501 af Average Runoff Depth = 1.97"
88.30% Pervious = 99.266 ac 11.70% Impervious = 13.148 ac

Summary for Subcatchment 14: WS 14

Runoff = 3.15 cfs @ 12.09 hrs, Volume= 0.211 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.041	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.657	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.170	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.002	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.192	78	Proposed developed meadow to be treated, HSG D
0.080	71	Proposed meadow, ski trail, HSG C
0.096	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.238	78	Weighted Average
1.197		96.69% Pervious Area
0.041		3.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	81	0.0900	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	28	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	44	0.5000	1.77		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	192	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.0	209	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	70	0.0400	4.33	12.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.050

16.0 624 Total

Summary for Subcatchment 15: WS 15

Runoff = 3.31 cfs @ 12.06 hrs, Volume= 0.206 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.017	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.776	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.042	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.006	71	Proposed developed meadow, non-grazed, HSG C
0.096	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.244	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.306	76	Weighted Average
1.289		98.70% Pervious Area
0.017		1.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0700	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	69	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	44	0.5000	4.95		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	170	0.1500	12.39	148.70	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.3	99	0.2400	1.22		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	43	0.0900	4.70	14.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069
13.7	624	Total			

Summary for Subcatchment 15A: WS 15A

Runoff = 5.80 cfs @ 11.94 hrs, Volume= 0.249 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.051	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.047	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.092	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.595	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.785	73	Weighted Average
1.646		92.21% Pervious Area
0.139		7.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	72	0.0800	1.94		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
2.3	155	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	149	0.1200	11.08	133.00	**Trap/Vee/Rect Channel Flow,** Bot.W=6.50' D=1.50' Z= 1.0 '/' Top.W=9.50' n= 0.050 Mountain streams w/large boulders
3.1	376	Total			

Summary for Subcatchment 15B: WS 15B

Runoff = 6.40 cfs @ 12.07 hrs, Volume= 0.415 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.387	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.966	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.064	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.056	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.129	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.647	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.249	71	Weighted Average
3.193		98.28% Pervious Area
0.056		1.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1700	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
7.0	502	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	87	0.0700	4.15	12.45	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
14.3	689	Total			

Summary for Subcatchment 15C: WS 15C

Runoff = 1.67 cfs @ 11.91 hrs, Volume= 0.070 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.010	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.037	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.352	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.001	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.103	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.503	73	Weighted Average
0.466		92.64% Pervious Area
0.037		7.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	66	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	41	0.4400	4.64		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	137	0.2000	23.50	94.01	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.2	244	Total			

Summary for Subcatchment 15C1: WS 15C1

Runoff = 0.50 cfs @ 12.05 hrs, Volume= 0.030 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.234	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.234	71	Weighted Average
0.234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	59	0.2200	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.6	41	0.2200	1.17		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.7	141	0.2100	3.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.1	241	Total			

Summary for Subcatchment 15D: WS 15D

Runoff = 1.08 cfs @ 11.98 hrs, Volume= 0.052 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.004	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.038	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.366	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.408	71	Weighted Average
0.408		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	43	0.5100	0.12		**Sheet Flow,** n= 0.800 P2= 2.40"
0.2	68	0.5100	5.00		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.2	111	Total			

Summary for Subcatchment 15E: WS 15E

Runoff = 3.51 cfs @ 11.91 hrs, Volume= 0.156 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.012	70	Existing Woods, Good, HSG C
0.018	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.054	98	Proposed impervious to be treated, HSG C
0.217	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.031	71	Proposed developed meadow to be treated, HSG C
0.379	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.711	85	Weighted Average
0.440		61.88% Pervious Area
0.271		38.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1100	2.36		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	25	0.1100	6.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	302	0.1000	4.96	14.88	**Trap/Vee/Rect Channel Flow, roadway ditch** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
1.8	427	Total			

Summary for Subcatchment 15F: WS 15F

Runoff = 6.87 cfs @ 12.01 hrs, Volume= 0.366 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.323	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.324	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.001	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.019	71	Proposed developed meadow, non-grazed, HSG C
0.593	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.011	71	Proposed meadow, ski trail, HSG C
0.852	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.145	78	Weighted Average
2.144		99.95% Pervious Area
0.001		0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.5	83	0.1400	2.62		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	401	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
9.2	584	Total			

Summary for Subcatchment 15G: WS 15G

Runoff = 3.46 cfs @ 12.05 hrs, Volume= 0.209 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.096	71	Existing meadow, non-grazed, HSG C
0.002	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.411	70	Existing Woods, Good, HSG C
0.082	77	Existing Woods, Good, HSG D
0.343	70	Proposed Woods, Good, HSG C
0.098	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.362	71	Proposed developed meadow, non-grazed, HSG C
0.172	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.566	72	Weighted Average
1.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	54	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	21	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	544	0.1400	5.87	17.60	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
12.5	619	Total			

Summary for Subcatchment 16: WS 16

Runoff = 3.14 cfs @ 12.09 hrs, Volume= 0.212 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.084	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.001	71	Existing meadow, non-grazed, HSG C
0.027	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.098	70	Existing Woods, Good, HSG C
0.543	77	Existing Woods, Good, HSG D
0.054	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.023	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.162	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.273	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.345	76	Weighted Average
1.238		92.04% Pervious Area
0.107		7.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1000	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	26	0.1000	2.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	25	0.4000	1.58		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.6	119	0.2500	1.25		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	139	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	161	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	70	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
16.1	640	Total			

Summary for Subcatchment 17: WS 17

Runoff = 5.17 cfs @ 11.94 hrs, Volume= 0.224 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.166	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.127	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.551	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.047	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.202	71	Proposed developed meadow, non-grazed, HSG C
0.076	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.216	80	Weighted Average
1.003		82.48% Pervious Area
0.213		17.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	23	0.1700	2.09		**Sheet Flow,** n= 0.011 P2= 2.40"
0.4	53	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	126	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	202	0.1400	15.06	75.28	**Trap/Vee/Rect Channel Flow,** Bot.W=4.00' D=1.00' Z= 1.0 '/' Top.W=6.00' n= 0.030
2.9	404	Total			

Summary for Subcatchment 17A: WS 17A

Runoff = 9.74 cfs @ 12.02 hrs, Volume= 0.546 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.021	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.152	70	Existing Woods, Good, HSG C
0.011	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.821	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.586	71	Proposed developed meadow to be treated, HSG C
0.260	78	Proposed developed meadow to be treated, HSG D
0.350	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
3.201	78	Weighted Average
2.380		74.35% Pervious Area
0.821		25.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	73	0.1200	0.19		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.8	94	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	268	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
10.5	435	Total			

Summary for Subcatchment 17B: WS 17B

Runoff = 9.60 cfs @ 11.93 hrs, Volume= 0.412 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.127	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.326	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.617	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.336	71	Proposed developed meadow to be treated, HSG C
0.006	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.412	78	Weighted Average
1.795		74.42% Pervious Area
0.617		25.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	35	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	542	0.1300	5.65	16.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
2.4	677	Total			

Summary for Subcatchment 17C: WS 17C

Runoff = 4.03 cfs @ 11.99 hrs, Volume= 0.198 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.057	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.462	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.110	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.139	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.651	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.420	73	Weighted Average
1.281		90.21% Pervious Area
0.139		9.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	55	0.1900	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.5	164	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	246	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
6.9	465	Total			

Summary for Subcatchment 17D: WS 17D

Runoff = 6.62 cfs @ 11.91 hrs, Volume= 0.283 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.030	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.315	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.315	98	Proposed impervious to be treated, HSG C
0.058	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
1.065	71	Proposed developed meadow to be treated, HSG C
0.011	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.794	76	Weighted Average
1.421		79.21% Pervious Area
0.373		20.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1200	2.44		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	46	0.1200	7.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	709	0.1100	17.43	69.72	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
1.5	855	Total			

Summary for Subcatchment 17E: WS 17E

Runoff = 11.69 cfs @ 11.97 hrs, Volume= 0.581 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.001	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.414	98	Proposed impervious to be treated, HSG C
0.574	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.285	71	Proposed developed meadow to be treated, HSG C
1.456	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.004	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.734	84	Weighted Average
1.746		63.86% Pervious Area
0.988		36.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
5.1	1,621	0.1000	5.30	21.20	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.069 Riprap, 6-inch
6.3	1,721	Total			

Summary for Subcatchment 17F: WS 17F

Runoff = 9.85 cfs @ 12.16 hrs, Volume= 0.803 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.041	71	Existing meadow, non-grazed, HSG C
0.804	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
2.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.114	71	Proposed developed meadow to be treated, HSG C
1.841	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.893	77	Weighted Average
4.893		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	52	0.1700	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.9	182	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	241	0.0300	9.10	36.41	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
8.5	424	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
22.7	899	Total			

Summary for Subcatchment 18: WS 18

Runoff = 0.85 cfs @ 11.95 hrs, Volume= 0.038 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.021	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.028	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.093	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.065	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.207	80	Weighted Average
0.186		89.86% Pervious Area
0.021		10.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	65	0.2700	0.26		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	92	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
4.2	157	Total			

Summary for Subcatchment 19: WS 19

Runoff = 1.60 cfs @ 12.04 hrs, Volume= 0.092 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.008	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.016	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.113	70	Existing Woods, Good, HSG C
0.312	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.016	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.047	71	Proposed developed meadow, non-grazed, HSG C
0.073	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.585	76	Weighted Average
0.561		95.90% Pervious Area
0.024		4.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.1600	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
4.2	253	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	102	0.0600	12.05	36.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.5	455	Total			

Summary for Subcatchment 20: WS 20

Runoff = 4.64 cfs @ 11.97 hrs, Volume= 0.225 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.037	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.021	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.015	70	Existing Woods, Good, HSG C
0.802	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.013	98	Untreated proposed impervious, HSG C
0.027	98	Untreated proposed impervious, HSG D
0.021	71	Proposed developed meadow, non-grazed, HSG C
0.379	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.001	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.316	78	Weighted Average
1.239		94.15% Pervious Area
0.077		5.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	34	0.0600	1.49		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	18	0.3900	4.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.8	166	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.6	144	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	64	0.0300	8.52	25.56	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
6.0	426	Total			

Summary for Subcatchment 20A: WS 20A

Runoff = 3.91 cfs @ 11.94 hrs, Volume= 0.169 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.287	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.141	98	Untreated proposed impervious, HSG C
0.006	98	Untreated proposed impervious, HSG D
0.600	71	Proposed developed meadow, non-grazed, HSG C
0.008	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.118	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.160	74	Weighted Average
1.013		87.33% Pervious Area
0.147		12.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1000	2.27		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	47	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	116	0.1700	1.03		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	32	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	330	Total			

Summary for Subcatchment 20B: WS 20B

Runoff = 2.15 cfs @ 11.97 hrs, Volume= 0.102 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.026	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.098	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.054	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.182	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.370	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.730	73	Weighted Average
0.676		92.60% Pervious Area
0.054		7.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	76	0.2000	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.2	140	0.1300	13.74	228.43	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=3.50' Z= 1.0 & 0.0 '/' Top.W=6.50' n= 0.050 Mountain streams w/large boulders
5.5	216	Total			

Summary for Subcatchment 20C: WS 20C

Runoff = 7.73 cfs @ 11.94 hrs, Volume= 0.345 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.757	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.923	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.001	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.681	83	Weighted Average
0.924		54.97% Pervious Area
0.757		45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0800	2.07		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	43	0.0800	5.74		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	307	0.0060	1.83	1.44	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
3.7	450	Total			

Summary for Subcatchment 20D: WS 20D

Runoff = 17.55 cfs @ 12.23 hrs, Volume= 1.665 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
2.530	71	Existing meadow, non-grazed, HSG C
2.720	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.679	70	Existing Woods, Good, HSG C
1.134	77	Existing Woods, Good, HSG D
0.241	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.064	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
2.002	71	Proposed developed meadow, non-grazed, HSG C
0.586	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.496	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
11.452	74	Weighted Average
11.388		99.44% Pervious Area
0.064		0.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
2.8	470	0.1600	2.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.7	338	0.2300	1.20		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.6	665	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.1	274	0.0900	0.75		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	79	0.0300	2.72	8.15	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch

28.2	1,926	Total

Summary for Subcatchment 20E: WS 20E

Runoff = 3.09 cfs @ 12.06 hrs, Volume= 0.195 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.061	71	Existing meadow, non-grazed, HSG C
0.148	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.327	70	Existing Woods, Good, HSG C
0.356	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.426	71	Proposed developed meadow, non-grazed, HSG C
0.080	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.398	73	Weighted Average
1.398		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	49	0.1500	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
2.6	149	0.1500	0.97		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.3	133	0.1800	6.65	19.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
13.8	331	Total			

Summary for Subcatchment 21: WS 21

Runoff = 0.81 cfs @ 12.04 hrs, Volume= 0.047 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.020	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.005	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.035	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.206	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.266	79	Weighted Average
0.246		92.48% Pervious Area
0.020		7.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	55	0.1900	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
0.3	17	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	170	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
11.6	242	Total			

Summary for Subcatchment 21A: WS 21A

Runoff = 23.23 cfs @ 11.95 hrs, Volume= 1.045 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.034	70	Existing Woods, Good, HSG C
0.923	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.063	98	Proposed impervious to be treated, HSG C
1.013	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.085	71	Proposed developed meadow to be treated, HSG C
3.163	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
5.281	82	Weighted Average
4.205		79.63% Pervious Area
1.076		20.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	89	0.0900	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	42	0.4300	4.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	99	0.1300	0.90		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	222	0.0500	3.51	10.52	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.069 Riprap, 6-inch
0.1	50	0.0500	16.10	50.59	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
0.2	91	0.1500	6.07	18.22	**Trap/Vee/Rect Channel Flow,**

Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00'
n= 0.069 Riprap, 6-inch

4.1	593	Total

Summary for Subcatchment 21B: WS 21B

Runoff = 2.98 cfs @ 12.20 hrs, Volume= 0.268 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.052	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
1.046	70	Existing Woods, Good, HSG C
0.012	77	Existing Woods, Good, HSG D
0.211	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.050	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.165	71	Proposed developed meadow to be treated, HSG C
0.065	78	Proposed developed meadow to be treated, HSG D
0.497	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
2.098	71	Weighted Average
2.048		97.62% Pervious Area
0.050		2.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1100	0.20		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
1.2	161	0.1100	2.32		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.7	363	0.1800	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
10.0					**Direct Entry, Representative Sheet Flow off of Ski Trail**
25.2	624	Total			

Summary for Subcatchment 21C: WS 21C

Runoff = 21.71 cfs @ 12.57 hrs, Volume= 3.222 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
1.021	98	Untreated existing impervious, HSG C
0.399	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
3.515	71	Existing meadow, non-grazed, HSG C
3.201	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
8.408	70	Existing Woods, Good, HSG C
3.898	77	Existing Woods, Good, HSG D
0.185	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.179	71	Proposed developed meadow, non-grazed, HSG C
0.459	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
21.265	75	Weighted Average
19.845		93.32% Pervious Area
1.420		6.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	17	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.2	146	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.2	259	0.3000	1.37		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.4	218	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.3	279	0.1900	1.09		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.3	186	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	90	0.2900	1.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	173	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.6	201	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	256	0.1200	0.87		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
4.9	195	0.0700	0.66		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.7	80	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
7.0	334	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.0	115	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	113	0.1900	22.91	91.63	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
53.8	2,762	Total			

Summary for Subcatchment 21D: WS 21D

Runoff = 13.85 cfs @ 11.94 hrs, Volume= 0.592 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.045	71	Existing meadow, non-grazed, HSG C
0.036	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
2.309	70	Existing Woods, Good, HSG C
0.065	77	Existing Woods, Good, HSG D
0.280	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.280	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
1.418	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
4.433	72	Weighted Average
4.153		93.68% Pervious Area
0.280		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	40	0.1000	1.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.2	43	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.9	134	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	457	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
2.9	674	Total			

Summary for Subcatchment 21E: WS 21E

Runoff = 7.83 cfs @ 11.91 hrs, Volume= 0.346 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.047	70	Existing Woods, Good, HSG C
0.005	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.763	98	Proposed impervious to be treated, HSG C
0.001	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.794	71	Proposed developed meadow to be treated, HSG C
0.018	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.628	84	Weighted Average
0.864		53.07% Pervious Area
0.764		46.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0300	1.40		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	26	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	327	0.3500	13.96	10.96	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.7	453	Total			

Summary for Subcatchment 22: WS 22

Runoff = 0.70 cfs @ 12.04 hrs, Volume= 0.041 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.025	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.115	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.085	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.225	80	Weighted Average
0.200		88.89% Pervious Area
0.025		11.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	36	0.0800	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.40"
1.1	47	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.2	125	0.0500	11.00	32.99	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
12.3	208	Total			

Summary for Subcatchment 23: WS 23

Runoff = 0.93 cfs @ 12.02 hrs, Volume= 0.052 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.039	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.004	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.123	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.114	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
0.280	80	Weighted Average
0.241		86.07% Pervious Area
0.039		13.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0800	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.6	67	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	118	0.0700	13.90	55.62	**Trap/Vee/Rect Channel Flow,** Bot.W=3.00' D=1.00' Z= 1.0 '/' Top.W=5.00' n= 0.022 Earth, clean & straight
10.2	285	Total			

Summary for Subcatchment 23A: WS 23A

Runoff = 6.77 cfs @ 11.90 hrs, Volume= 0.298 af, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.000	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.057	98	Proposed impervious to be treated, HSG C
0.510	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.000	71	Proposed developed meadow, non-grazed, HSG C
0.000	78	Proposed developed meadow, non-grazed, HSG D
0.027	71	Proposed developed meadow to be treated, HSG C
0.673	78	Proposed developed meadow to be treated, HSG D
0.000	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.267	87	Weighted Average
0.700		55.25% Pervious Area
0.567		44.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0400	1.22		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.40"
0.1	53	0.0200	6.96	20.87	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022 Earth, clean & straight
0.8	281	0.0600	5.78	4.54	**Pipe Channel, CMP_Round 12"** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
1.3	362	Total			

Summary for Subcatchment 23B: WS 23B

Runoff = 2.52 cfs @ 12.05 hrs, Volume= 0.153 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.000	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.306	71	Existing meadow, non-grazed, HSG C
0.000	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.509	70	Existing Woods, Good, HSG C
0.000	77	Existing Woods, Good, HSG D
0.032	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.000	98	Untreated proposed impervious, HSG D
0.215	71	Proposed developed meadow, non-grazed, HSG C
0.045	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.094	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
1.201	71	Weighted Average
1.201		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.1400	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.7	40	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.8	229	0.1600	1.00		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.5	98	0.2200	3.28		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
12.6	467	Total			

Summary for Subcatchment 24: WS 24

Runoff = 33.64 cfs @ 12.12 hrs, Volume= 2.497 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Untreated existing impervious, HSG A
0.000	98	Untreated existing impervious, HSG C
0.502	98	Untreated existing impervious, HSG D
0.000	98	Existing impervious to be treated as offset, HSG D
0.000	30	Existing meadow, non-grazed, HSG A
0.614	71	Existing meadow, non-grazed, HSG C
6.291	78	Existing meadow, non-grazed, HSG D
0.000	30	Existing Woods, Good, HSG A
0.000	70	Existing Woods, Good, HSG C
6.411	77	Existing Woods, Good, HSG D
0.000	70	Proposed Woods, Good, HSG C
0.000	77	Proposed Woods, Good, HSG D
0.000	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.000	98	Untreated proposed impervious, HSG C
0.079	98	Untreated proposed impervious, HSG D
0.065	71	Proposed developed meadow, non-grazed, HSG C
0.643	78	Proposed developed meadow, non-grazed, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.002	78	Proposed developed meadow to be treated, HSG D
0.027	71	Proposed meadow, ski trail, HSG C
0.000	78	Proposed meadow, ski trail, HSG D
0.000	71	Proposed meadow, ski lift, HSG C
0.000	78	Proposed meadow, ski lift, HSG D
14.634	78	Weighted Average
14.053		96.03% Pervious Area
0.581		3.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1500	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.40"
0.1	10	0.1500	2.71		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	210	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.4	333	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	221	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	317	0.1100	16.31	48.94	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.3	305	0.1400	18.40	55.21	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	241	0.1200	17.04	51.11	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	138	0.2000	21.99	65.98	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.2	224	0.1500	19.05	57.14	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
2.1	118	0.1400	0.94		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.5	167	0.1000	0.79		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
0.1	89	0.1000	15.55	46.66	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
0.1	105	0.0900	14.75	44.26	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.00' Z= 1.0 '/' Top.W=4.00' n= 0.022
19.4	2,578	Total			

Summary for Subcatchment R1: R1

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R10: R10

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R11: R11

Runoff = 1.63 cfs @ 11.97 hrs, Volume= 0.080 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.127	98	Proposed impervious to be treated, HSG C
0.033	98	Proposed impervious to be treated, HSG D
0.182	71	Proposed developed meadow to be treated, HSG C
0.047	78	Proposed developed meadow to be treated, HSG D
0.389	83	Weighted Average
0.229		58.87% Pervious Area
0.160		41.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R12: R12

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R13: R13

Runoff = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.230	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.475	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.705	80	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R14: R14

Runoff = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R15: R15

Runoff = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.298	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.551	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.849	80	Weighted Average
0.551		64.90% Pervious Area
0.298		35.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R2: R2

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R21: R21

Runoff = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.230	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.475	78	Proposed developed meadow to be treated, HSG D
0.705	85	Weighted Average
0.475		67.38% Pervious Area
0.230		32.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R3: R3

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R4: R4

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R51: R51

Runoff = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R52: R52

Runoff = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.161	98	Proposed impervious to be treated, HSG C
0.000	98	Proposed impervious to be treated, HSG D
0.230	71	Proposed developed meadow to be treated, HSG C
0.000	78	Proposed developed meadow to be treated, HSG D
0.391	82	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R6: R6

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R7: R7

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.002	98	Proposed impervious to be treated, HSG C
0.159	98	Proposed impervious to be treated, HSG D
0.003	71	Proposed developed meadow to be treated, HSG C
0.227	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R8: R8

Runoff = 1.71 cfs @ 11.97 hrs, Volume= 0.083 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.131	98	Proposed impervious to be treated, HSG C
0.037	98	Proposed impervious to be treated, HSG D
0.187	71	Proposed developed meadow to be treated, HSG C
0.052	78	Proposed developed meadow to be treated, HSG D
0.407	83	Weighted Average
0.239		58.72% Pervious Area
0.168		41.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

Summary for Subcatchment R9: R9

Runoff = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
0.000	98	Proposed impervious to be treated, HSG C
0.161	98	Proposed impervious to be treated, HSG D
0.000	71	Proposed developed meadow to be treated, HSG C
0.230	78	Proposed developed meadow to be treated, HSG D
0.391	86	Weighted Average
0.230		58.82% Pervious Area
0.161		41.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Minimum Tc**

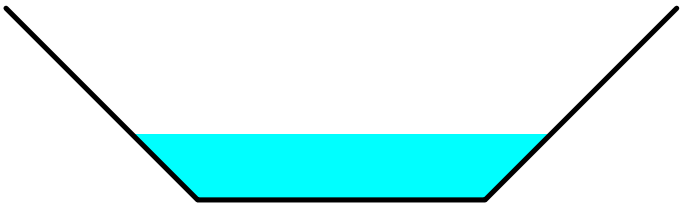
Summary for Reach 6R: stream

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 1.93" for 25-Year event
Inflow = 19.64 cfs @ 12.09 hrs, Volume= 3.691 af
Outflow = 19.43 cfs @ 12.11 hrs, Volume= 3.690 af, Atten= 1%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.73 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.60 fps, Avg. Travel Time= 2.9 min

Peak Storage= 712 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.69' , Surface Width= 4.38'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 132.62 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 280.0' Slope= 0.1643 '/'
Inlet Invert= 1,815.00', Outlet Invert= 1,769.00'



Summary for Reach 8R: ditch to stream

Inflow Area = 17.262 ac, 16.17% Impervious, Inflow Depth > 1.99" for 25-Year event
Inflow = 13.58 cfs @ 12.07 hrs, Volume= 2.865 af
Outflow = 13.33 cfs @ 12.11 hrs, Volume= 2.864 af, Atten= 2%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.25 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.55 fps, Avg. Travel Time= 5.1 min

Peak Storage= 881 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.53' , Surface Width= 4.05'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 144.00 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 475.0' Slope= 0.1937 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,818.00'

Summary for Reach 9R: stream

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth > 1.88" for 25-Year event
Inflow = 40.30 cfs @ 12.32 hrs, Volume= 8.173 af
Outflow = 40.24 cfs @ 12.34 hrs, Volume= 8.173 af, Atten= 0%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.94 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 3.7 min

Peak Storage= 1,487 cf @ 12.33 hrs
Average Depth at Peak Storage= 1.00' , Surface Width= 5.50'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 139.42 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 330.0' Slope= 0.1424 '/'
Inlet Invert= 1,787.00', Outlet Invert= 1,740.00'

Summary for Reach 10R: stream

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth > 1.89" for 25-Year event
Inflow = 39.91 cfs @ 12.32 hrs, Volume= 8.005 af
Outflow = 39.87 cfs @ 12.33 hrs, Volume= 8.004 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.51 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.57 fps, Avg. Travel Time= 1.5 min

Peak Storage= 587 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.94' , Surface Width= 5.39'
Bank-Full Depth= 2.00' Flow Area= 11.0 sf, Capacity= 152.96 cfs

3.50' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.50'
Length= 140.0' Slope= 0.1714 '/'
Inlet Invert= 1,814.00', Outlet Invert= 1,790.00'

Summary for Reach 11R: stream

Inflow Area = 39.194 ac, 8.55% Impervious, Inflow Depth = 1.88" for 25-Year event
Inflow = 37.50 cfs @ 12.31 hrs, Volume= 6.143 af
Outflow = 37.42 cfs @ 12.32 hrs, Volume= 6.143 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.99 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.91 fps, Avg. Travel Time= 2.6 min

Peak Storage= 1,126 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.95' , Surface Width= 4.90'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 145.10 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 300.0' Slope= 0.1967 '/'
Inlet Invert= 1,910.00', Outlet Invert= 1,851.00'

Summary for Reach 14R: drainage ditch

Inflow Area = 3.365 ac, 18.42% Impervious, Inflow Depth = 1.96" for 25-Year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.548 af
Outflow = 4.88 cfs @ 12.17 hrs, Volume= 0.548 af, Atten= 6%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.88 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.93 fps, Avg. Travel Time= 10.7 min

Peak Storage= 761 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.44' , Surface Width= 3.76'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 106.43 cfs

2.00' x 2.00' deep channel, n= 0.069
Side Slope Z-value= 2.0 '/' Top Width= 10.00'
Length= 600.0' Slope= 0.1500 '/'
Inlet Invert= 2,060.00', Outlet Invert= 1,970.00'

Summary for Reach 114R: dead end channel

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 1.91" for 25-Year event
Inflow = 20.29 cfs @ 12.10 hrs, Volume= 3.939 af
Outflow = 19.99 cfs @ 12.12 hrs, Volume= 3.939 af, Atten= 1%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.34 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.09 fps, Avg. Travel Time= 3.2 min

Peak Storage= 781 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.55' , Surface Width= 4.10'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 200.37 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 400.0' Slope= 0.3750 '/'
Inlet Invert= 1,750.00', Outlet Invert= 1,600.00'

Summary for Reach 115R: stream

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth > 1.90" for 25-Year event
Inflow = 39.10 cfs @ 12.32 hrs, Volume= 7.705 af
Outflow = 39.07 cfs @ 12.32 hrs, Volume= 7.705 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.26 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.57 fps, Avg. Travel Time= 1.4 min

Peak Storage= 548 cf @ 12.32 hrs
Average Depth at Peak Storage= 1.04' , Surface Width= 5.09'
Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 128.34 cfs

3.00' x 2.00' deep channel, n= 0.050
Side Slope Z-value= 1.0 '/' Top Width= 7.00'
Length= 130.0' Slope= 0.1538 '/'
Inlet Invert= 1,844.00', Outlet Invert= 1,824.00'

Summary for Pond 2P: Culvert 7C Driveway

Inflow Area = 52.040 ac, 11.27% Impervious, Inflow Depth > 1.88" for 25-Year event
Inflow = 40.30 cfs @ 12.32 hrs, Volume= 8.173 af
Primary = 40.30 cfs @ 12.32 hrs, Volume= 8.173 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 3P: Culvert 7B -Road A

Inflow Area = 50.880 ac, 11.24% Impervious, Inflow Depth > 1.89" for 25-Year event
Inflow = 39.91 cfs @ 12.32 hrs, Volume= 8.005 af
Primary = 39.91 cfs @ 12.32 hrs, Volume= 8.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 4P: trail culvert

Inflow Area = 1.420 ac, 9.79% Impervious, Inflow Depth = 1.67" for 25-Year event
Inflow = 4.03 cfs @ 11.99 hrs, Volume= 0.198 af
Primary = 4.03 cfs @ 11.99 hrs, Volume= 0.198 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 5P: Culvert 7A

Inflow Area = 48.730 ac, 11.34% Impervious, Inflow Depth > 1.90" for 25-Year event
Inflow = 39.10 cfs @ 12.32 hrs, Volume= 7.705 af
Primary = 39.10 cfs @ 12.32 hrs, Volume= 7.705 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 7P: Culvert 6A

Inflow Area = 22.923 ac, 15.11% Impervious, Inflow Depth > 1.93" for 25-Year event
Inflow = 19.64 cfs @ 12.09 hrs, Volume= 3.691 af
Primary = 19.64 cfs @ 12.09 hrs, Volume= 3.691 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 8P: new 36

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 2.07" for 25-Year event
Inflow = 33.72 cfs @ 12.12 hrs, Volume= 2.948 af
Outflow = 33.72 cfs @ 12.12 hrs, Volume= 2.948 af, Atten= 0%, Lag= 0.0 min
Primary = 33.72 cfs @ 12.12 hrs, Volume= 2.948 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 2.49' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -2.80' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=33.21 cfs @ 12.12 hrs HW=2.46' (Free Discharge)
1=Culvert (Inlet Controls 33.21 cfs @ 5.34 fps)

Summary for Pond 9P: new 36

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 1.91" for 25-Year event
Inflow = 22.98 cfs @ 12.10 hrs, Volume= 4.145 af
Outflow = 22.98 cfs @ 12.10 hrs, Volume= 4.145 af, Atten= 0%, Lag= 0.0 min
Primary = 22.98 cfs @ 12.10 hrs, Volume= 4.145 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1.94' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**36.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -1.05' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=22.90 cfs @ 12.10 hrs HW=1.94' (Free Discharge)
1=Culvert (Inlet Controls 22.90 cfs @ 4.74 fps)

Summary for Pond 13P: Culvert 6B

Inflow Area = 24.708 ac, 14.58% Impervious, Inflow Depth > 1.91" for 25-Year event
Inflow = 20.29 cfs @ 12.10 hrs, Volume= 3.939 af
Primary = 20.29 cfs @ 12.10 hrs, Volume= 3.939 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 39P: Trail culvert

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 2.23" for 25-Year event
Inflow = 0.55 cfs @ 12.25 hrs, Volume= 0.208 af
Primary = 0.55 cfs @ 12.25 hrs, Volume= 0.208 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 40P: Bypass culvert

Inflow Area = 3.632 ac, 15.23% Impervious, Inflow Depth = 2.31" for 25-Year event
Inflow = 9.30 cfs @ 12.04 hrs, Volume= 0.699 af
Primary = 9.30 cfs @ 12.04 hrs, Volume= 0.699 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Pond 108P: new 36

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth > 1.89" for 25-Year event
Inflow = 40.81 cfs @ 12.34 hrs, Volume= 8.398 af
Outflow = 40.81 cfs @ 12.34 hrs, Volume= 8.398 af, Atten= 0%, Lag= 0.0 min
Primary = 40.81 cfs @ 12.34 hrs, Volume= 8.398 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Peak Elev= 1,742.92' @ 12.34 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1,740.00'	**36.0" Round Culvert** L= 70.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,740.00' / 1,738.00' S= 0.0286 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 7.07 sf

Primary OutFlow Max=40.75 cfs @ 12.34 hrs HW=1,742.91' (Free Discharge)
1=Culvert (Inlet Controls 40.75 cfs @ 5.81 fps)

Summary for Pond P10: P10 Gravel Wetland

Inflow Area = 7.627 ac, 12.95% Impervious, Inflow Depth = 2.18" for 25-Year event
Inflow = 16.99 cfs @ 12.00 hrs, Volume= 1.384 af
Outflow = 0.59 cfs @ 16.40 hrs, Volume= 1.155 af, Atten= 97%, Lag= 264.4 min
Primary = 0.59 cfs @ 16.40 hrs, Volume= 1.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,977.66' Surf.Area= 6,880 sf Storage= 7,320 cf
Peak Elev= 1,982.47' @ 16.40 hrs Surf.Area= 21,572 sf Storage= 52,817 cf (45,497 cf above start)

Plug-Flow detention time= 2,802.0 min calculated for 0.987 af (71% of inflow)
Center-of-Mass det. time= 2,324.4 min (3,159.8 - 835.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,975.00'	10,093 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,975.00'	10,093 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,979.50'	52,918 cf	**Ponding (Irregular)**Listed below (Recalc)
		73,103 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,975.00	3,440	228.0	0.0	0	0	3,440
1,978.00	3,440	228.0	40.0	4,128	4,128	4,124
1,979.50	4,538	231.9	100.0	5,965	10,093	4,497

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,979.50	9,252	409.5	0	0	9,252
1,981.00	11,159	437.8	15,286	15,286	11,263
1,983.00	13,000	460.0	24,136	39,422	13,086
1,984.00	14,000	490.0	13,497	52,918	15,403

Device	Routing	Invert	Outlet Devices
#1	Primary	1,977.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,977.00' / 1,976.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,977.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,982.40'	**30.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,983.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.58 cfs @ 16.40 hrs HW=1,982.47' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.58 cfs of 25.24 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 10.49 fps)
  └**3=Orifice/Grate** (Weir Controls 0.45 cfs @ 0.85 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,977.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P17: P17 Gravel Wetland

Inflow Area = 3.475 ac, 32.52% Impervious, Inflow Depth = 2.17" for 25-Year event
Inflow = 14.12 cfs @ 11.93 hrs, Volume= 0.628 af
Outflow = 0.30 cfs @ 15.62 hrs, Volume= 0.627 af, Atten= 98%, Lag= 221.4 min
Primary = 0.30 cfs @ 15.62 hrs, Volume= 0.627 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,874.66' Surf.Area= 4,642 sf Storage= 4,939 cf
Peak Elev= 1,877.74' @ 15.62 hrs Surf.Area= 15,897 sf Storage= 24,519 cf (19,580 cf above start)

Plug-Flow detention time= 2,314.9 min calculated for 0.514 af (82% of inflow)
Center-of-Mass det. time= 1,852.0 min (2,675.5 - 823.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,872.00'	6,972 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,872.00'	6,921 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,876.50'	13,117 cf	**Ponding (Irregular)** Listed below (Recalc)
		27,010 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,322	197.0	0.0	0	0	2,322
1,875.00	2,322	197.0	40.0	2,786	2,786	2,913
1,876.50	3,286	231.9	100.0	4,185	6,972	4,147

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,872.00	2,320	184.0	0.0	0	0	2,320
1,875.00	2,320	184.0	40.0	2,784	2,784	2,872
1,876.50	3,220	216.4	100.0	4,137	6,921	3,947

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,876.50	7,778	425.6	0	0	7,778
1,878.00	9,749	453.2	13,117	13,117	9,818

Device	Routing	Invert	Outlet Devices
#1	Primary	1,874.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,874.00' / 1,873.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,874.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,877.70'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,878.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.27 cfs @ 15.62 hrs HW=1,877.74' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.27 cfs of 19.77 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 8.36 fps)
  └**3=Orifice/Grate** (Weir Controls 0.16 cfs @ 0.65 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,874.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Summary for Pond P2: Townhomes 3-6 Gravel Wetland

Inflow Area = 3.201 ac, 25.65% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 9.74 cfs @ 12.02 hrs, Volume= 0.546 af
Outflow = 1.32 cfs @ 12.47 hrs, Volume= 0.546 af, Atten= 86%, Lag= 26.5 min
Primary = 0.79 cfs @ 12.47 hrs, Volume= 0.452 af
Secondary = 0.52 cfs @ 12.47 hrs, Volume= 0.094 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,746.66' Surf.Area= 3,892 sf Storage= 4,141 cf
Peak Elev= 1,749.11' @ 12.47 hrs Surf.Area= 13,279 sf Storage= 16,197 cf (12,056 cf above start)

Plug-Flow detention time= 1,661.1 min calculated for 0.451 af (83% of inflow)
Center-of-Mass det. time= 1,295.0 min (2,131.2 - 836.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,744.00'	5,915 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,744.00'	5,845 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,748.50'	11,773 cf	**Ponding (Irregular)**Listed below (Recalc)
		23,533 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,949	182.2	0.0	0	0	1,949
1,747.00	1,949	182.2	40.0	2,339	2,339	2,496
1,748.50	2,848	217.0	100.0	3,577	5,915	3,641

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,744.00	1,943	166.6	0.0	0	0	1,943
1,747.00	1,943	166.6	40.0	2,332	2,332	2,443
1,748.50	2,765	198.6	100.0	3,513	5,845	3,412

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.50	6,943	396.4	0	0	6,943
1,750.00	8,791	424.7	11,773	11,773	8,892

Device	Routing	Invert	Outlet Devices
#1	Primary	1,746.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,746.00' / 1,745.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,746.66'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,749.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,749.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.78 cfs @ 12.47 hrs HW=1,749.11' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.78 cfs of 17.34 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 7.46 fps)
  └**3=Orifice/Grate** (Weir Controls 0.72 cfs @ 1.07 fps)

Secondary OutFlow Max=0.51 cfs @ 12.47 hrs HW=1,749.11' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.51 cfs @ 0.80 fps)

Summary for Pond P3: P3 Gravel Wetland

Inflow Area = 7.379 ac, 15.26% Impervious, Inflow Depth = 2.14" for 25-Year event
Inflow = 24.15 cfs @ 11.95 hrs, Volume= 1.313 af
Outflow = 0.68 cfs @ 15.46 hrs, Volume= 1.134 af, Atten= 97%, Lag= 210.7 min
Primary = 0.68 cfs @ 15.46 hrs, Volume= 1.134 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,750.66' Surf.Area= 6,574 sf Storage= 6,995 cf
Peak Elev= 1,754.69' @ 15.46 hrs Surf.Area= 24,473 sf Storage= 48,213 cf (41,218 cf above start)

Plug-Flow detention time= 2,670.5 min calculated for 0.973 af (74% of inflow)
Center-of-Mass det. time= 2,220.6 min (3,049.8 - 829.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,748.00'	9,662 cf	**Cell #1 (Irregular)**Listed below (Recalc)
#2	1,748.00'	9,662 cf	**Cell #2 (Irregular)**Listed below (Recalc)
#3	1,752.50'	61,673 cf	**Ponding (Irregular)**Listed below (Recalc)
		80,998 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,748.00	3,287	197.0	0.0	0	0	3,287
1,751.00	3,287	197.0	40.0	3,944	3,944	3,878
1,752.50	4,362	255.0	100.0	5,718	9,662	5,992

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,752.50	10,828	401.5	0	0	10,828
1,754.00	14,121	764.7	18,657	18,657	44,545
1,756.50	20,489	895.0	43,016	61,673	61,879

Device	Routing	Invert	Outlet Devices
#1	Primary	1,750.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,750.00' / 1,749.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,750.66'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,754.60'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,755.00'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.63 cfs @ 15.46 hrs HW=1,754.69' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.63 cfs of 22.93 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 9.59 fps)
  └**3=Orifice/Grate** (Weir Controls 0.51 cfs @ 0.96 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,750.66' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P4: P4 VSF

Inflow Area = 2.468 ac, 22.97% Impervious, Inflow Depth = 2.19" for 25-Year event
Inflow = 7.90 cfs @ 11.91 hrs, Volume= 0.451 af
Outflow = 0.09 cfs @ 23.98 hrs, Volume= 0.451 af, Atten= 99%, Lag= 723.8 min
Primary = 0.09 cfs @ 23.98 hrs, Volume= 0.451 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,799.33' Surf.Area= 2,868 sf Storage= 379 cf
Peak Elev= 1,804.98' @ 23.98 hrs Surf.Area= 5,502 sf Storage= 15,844 cf (15,465 cf above start)

Plug-Flow detention time= 1,896.2 min calculated for 0.442 af (98% of inflow)
Center-of-Mass det. time= 1,846.0 min (2,665.8 - 819.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,799.00'	36,922 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,799.00	2,868	235.8	0.0	0	0	2,868
1,800.50	2,868	235.8	40.0	1,721	1,721	3,222
1,802.00	2,868	235.8	40.0	1,721	3,442	3,575
1,804.00	4,635	289.1	100.0	7,433	10,874	5,863
1,806.00	6,481	326.2	100.0	11,065	21,939	7,781
1,808.00	8,550	363.4	100.0	14,983	36,922	9,935

Device	Routing	Invert	Outlet Devices
#1	Primary	1,799.00'	**15.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,799.00' / 1,797.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,799.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,805.40'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,805.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 23.98 hrs HW=1,804.98' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.09 cfs of 10.80 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 11.40 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,799.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P5: Roads A and F Soil Filter

Inflow Area = 2.412 ac, 25.58% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 9.60 cfs @ 11.93 hrs, Volume= 0.412 af
Outflow = 0.09 cfs @ 23.98 hrs, Volume= 0.411 af, Atten= 99%, Lag= 722.9 min
Primary = 0.09 cfs @ 23.98 hrs, Volume= 0.411 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,831.33' Surf.Area= 2,838 sf Storage= 375 cf
Peak Elev= 1,836.75' @ 23.98 hrs Surf.Area= 5,327 sf Storage= 14,379 cf (14,005 cf above start)

Plug-Flow detention time= 1,781.2 min calculated for 0.403 af (98% of inflow)
Center-of-Mass det. time= 1,730.5 min (2,559.2 - 828.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,831.00'	21,966 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,831.00	2,838	261.4	0.0	0	0	2,838
1,832.50	2,838	261.4	40.0	1,703	1,703	3,230
1,834.00	2,838	261.4	40.0	1,703	3,406	3,622
1,836.00	4,520	299.0	100.0	7,293	10,699	5,390
1,838.00	6,826	390.0	100.0	11,267	21,966	10,427

Device	Routing	Invert	Outlet Devices
#1	Primary	1,830.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,830.00' / 1,828.00' S= 0.0200 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,831.33'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,836.80'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,837.00'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.09 cfs @ 23.98 hrs HW=1,836.75' (Free Discharge)
└**1=Culvert** (Passes 0.09 cfs of 16.45 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 11.16 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,831.33' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond P8: P8 Gravel Wetland

Inflow Area = 1.628 ac, 46.93% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 7.83 cfs @ 11.91 hrs, Volume= 0.346 af
Outflow = 0.19 cfs @ 14.73 hrs, Volume= 0.343 af, Atten= 98%, Lag= 168.8 min
Primary = 0.13 cfs @ 14.73 hrs, Volume= 0.321 af
Secondary = 0.06 cfs @ 14.73 hrs, Volume= 0.022 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,927.66' Surf.Area= 2,506 sf Storage= 2,666 cf
Peak Elev= 1,930.52' @ 14.73 hrs Surf.Area= 9,934 sf Storage= 13,411 cf (10,744 cf above start)

Plug-Flow detention time= 2,703.9 min calculated for 0.282 af (81% of inflow)
Center-of-Mass det. time= 2,173.8 min (2,984.4 - 810.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,925.00'	3,942 cf	**Cell #1 (Irregular)** Listed below (Recalc)
#2	1,925.00'	3,871 cf	**Cell #2 (Irregular)** Listed below (Recalc)
#3	1,929.50'	15,570 cf	**Ponding (Irregular)** Listed below (Recalc)
		23,382 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	152.0	0.0	0	0	1,253
1,928.00	1,253	152.0	40.0	1,504	1,504	1,709
1,929.50	2,029	192.4	100.0	2,438	3,942	2,846

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,925.00	1,253	134.0	0.0	0	0	1,253
1,928.00	1,253	134.0	40.0	1,504	1,504	1,655
1,929.50	1,927	165.0	100.0	2,367	3,871	2,426

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,929.50	4,972	320.0	0	0	4,972
1,931.00	6,477	348.7	8,562	8,562	6,579
1,932.00	7,552	367.5	7,008	15,570	7,709

Device	Routing	Invert	Outlet Devices
#1	Primary	1,927.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,927.00' / 1,926.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	1,927.66'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,930.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,930.50'	**6.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64

2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.12 cfs @ 14.73 hrs HW=1,930.52' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.12 cfs of 18.97 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.09 fps)
  └**3=Orifice/Grate** (Weir Controls 0.08 cfs @ 0.51 fps)

Secondary OutFlow Max=0.05 cfs @ 14.73 hrs HW=1,930.52' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.05 cfs @ 0.38 fps)

Summary for Pond P9: Lot R51 Soil Filter

Inflow Area = 1.119 ac, 24.22% Impervious, Inflow Depth = 2.23" for 25-Year event
Inflow = 4.40 cfs @ 11.93 hrs, Volume= 0.208 af
Outflow = 0.55 cfs @ 12.25 hrs, Volume= 0.208 af, Atten= 87%, Lag= 19.2 min
Primary = 0.55 cfs @ 12.25 hrs, Volume= 0.208 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,941.33' Surf.Area= 1,440 sf Storage= 190 cf
Peak Elev= 1,945.58' @ 12.25 hrs Surf.Area= 2,352 sf Storage= 4,696 cf (4,506 cf above start)

Plug-Flow detention time= 745.2 min calculated for 0.204 af (98% of inflow)
Center-of-Mass det. time= 712.8 min (1,531.3 - 818.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,941.00'	22,064 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1,941.00	1,440	179.7	0.0	0	0	1,440
1,942.50	1,440	179.7	40.0	864	864	1,710
1,944.00	1,440	179.7	40.0	864	1,728	1,979
1,946.00	2,631	217.4	100.0	4,012	5,740	3,235
1,948.00	4,049	255.1	100.0	6,629	12,369	4,729
1,950.00	5,693	292.8	100.0	9,695	22,064	6,462

Device	Routing	Invert	Outlet Devices
#1	Primary	1,940.00'	**24.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,940.00' / 1,938.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	1,941.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,941.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,945.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,945.80'	**4.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.53 cfs @ 12.25 hrs HW=1,945.58' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.53 cfs of 25.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.88 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.16 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.47 cfs @ 0.93 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,941.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 1: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=1,953.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 10: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,933.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,933.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 11: Small Rain Garden

Inflow Area = 0.389 ac, 41.13% Impervious, Inflow Depth = 2.46" for 25-Year event
Inflow = 1.63 cfs @ 11.97 hrs, Volume= 0.080 af
Outflow = 0.62 cfs @ 12.10 hrs, Volume= 0.080 af, Atten= 62%, Lag= 8.0 min
Primary = 0.62 cfs @ 12.10 hrs, Volume= 0.080 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 2,073.69' @ 12.10 hrs Surf.Area= 1,037 sf Storage= 1,579 cf (1,475 cf above start)

Plug-Flow detention time= 298.4 min calculated for 0.077 af (97% of inflow)
Center-of-Mass det. time= 266.9 min (1,084.5 - 817.6)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	790	0.0	0	0
2,071.50	790	40.0	474	474
2,073.00	790	40.0	474	948
2,074.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.61 cfs @ 12.10 hrs HW=2,073.69' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.61 cfs of 11.52 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.77 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.57 cfs @ 1.42 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 12: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,073.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=2,073.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 13: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 2.67 cfs @ 11.97 hrs, Volume= 0.130 af
Outflow = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af, Atten= 71%, Lag= 9.0 min
Primary = 0.77 cfs @ 12.12 hrs, Volume= 0.130 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 2,070.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 2,073.72' @ 12.12 hrs Surf.Area= 1,645 sf Storage= 2,657 cf (2,483 cf above start)

Plug-Flow detention time= 453.5 min calculated for 0.126 af (97% of inflow)
Center-of-Mass det. time= 416.9 min (1,243.3 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	2,070.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2,070.00	1,321	0.0	0	0
2,071.50	1,321	40.0	793	793
2,073.00	1,321	40.0	793	1,585
2,074.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	2,070.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 2,070.00' / 2,068.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	2,070.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	2,070.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	2,073.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	2,074.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.72 cfs @ 12.12 hrs HW=2,073.71' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.72 cfs of 11.56 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.11 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.68 cfs @ 1.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=2,070.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 14: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af
Outflow = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af, Atten= 76%, Lag= 10.1 min
Primary = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,953.72' @ 12.14 hrs Surf.Area= 1,987 sf Storage= 3,264 cf (3,048 cf above start)

Plug-Flow detention time= 528.4 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 490.3 min (1,316.7 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.76 cfs @ 12.14 hrs HW=1,953.72' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.76 cfs of 11.58 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.81 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.71 cfs @ 1.54 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 15: Large Rain Garden

Inflow Area = 0.849 ac, 35.10% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 3.22 cfs @ 11.97 hrs, Volume= 0.156 af
Outflow = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af, Atten= 76%, Lag= 10.1 min
Primary = 0.77 cfs @ 12.14 hrs, Volume= 0.156 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,630 sf Storage= 215 cf
Peak Elev= 1,953.72' @ 12.14 hrs Surf.Area= 1,987 sf Storage= 3,264 cf (3,048 cf above start)

Plug-Flow detention time= 528.4 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 490.3 min (1,316.7 - 826.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,956 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,630	0.0	0	0
1,951.50	1,630	40.0	978	978
1,953.00	1,630	40.0	978	1,956
1,954.50	2,370	100.0	3,000	4,956

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.76 cfs @ 12.14 hrs HW=1,953.72' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.76 cfs of 11.58 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.81 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.14 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.71 cfs @ 1.54 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 2: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,953.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	1,321	0.0	0	0
1,951.50	1,321	40.0	793	793
1,953.00	1,321	40.0	793	1,585
1,954.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=1,953.94' (Free Discharge)
└─**1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └─**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 21: Medium Rain Garden

Inflow Area = 0.705 ac, 32.62% Impervious, Inflow Depth = 2.64" for 25-Year event
Inflow = 3.14 cfs @ 11.97 hrs, Volume= 0.155 af
Outflow = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af, Atten= 63%, Lag= 7.6 min
Primary = 1.17 cfs @ 12.10 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 1,321 sf Storage= 174 cf
Peak Elev= 1,933.95' @ 12.10 hrs Surf.Area= 1,746 sf Storage= 3,037 cf (2,863 cf above start)

Plug-Flow detention time= 392.9 min calculated for 0.151 af (97% of inflow)
Center-of-Mass det. time= 362.1 min (1,173.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	4,071 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	1,321	0.0	0	0
1,931.50	1,321	40.0	793	793
1,933.00	1,321	40.0	793	1,585
1,934.50	1,994	100.0	2,486	4,071

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.17 cfs @ 12.10 hrs HW=1,933.94' (Free Discharge)
└**1=Outlet Culvert** (Passes 1.17 cfs of 12.01 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 9.10 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.12 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 1.12 cfs @ 3.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 3: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,953.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 4: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,953.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 51: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af
Outflow = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af, Atten= 67%, Lag= 8.6 min
Primary = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.67' @ 12.11 hrs Surf.Area= 1,029 sf Storage= 1,557 cf (1,453 cf above start)

Plug-Flow detention time= 306.0 min calculated for 0.075 af (97% of inflow)
Center-of-Mass det. time= 272.8 min (1,093.4 - 820.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.50 cfs @ 12.11 hrs HW=1,953.66' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.50 cfs of 11.46 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.73 fps)
  │ └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Weir Controls 0.45 cfs @ 1.32 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 52: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.37" for 25-Year event
Inflow = 1.59 cfs @ 11.97 hrs, Volume= 0.077 af
Outflow = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af, Atten= 67%, Lag= 8.6 min
Primary = 0.53 cfs @ 12.11 hrs, Volume= 0.077 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.67' @ 12.11 hrs Surf.Area= 1,029 sf Storage= 1,557 cf (1,453 cf above start)

Plug-Flow detention time= 306.0 min calculated for 0.075 af (97% of inflow)
Center-of-Mass det. time= 272.8 min (1,093.4 - 820.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.50 cfs @ 12.11 hrs HW=1,953.66' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.50 cfs of 11.46 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.73 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.45 cfs @ 1.32 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 6: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,953.76' (Free Discharge)
└**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
    └**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 7: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,953.76' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 8: Small Rain Garden

Inflow Area = 0.407 ac, 41.28% Impervious, Inflow Depth = 2.46" for 25-Year event
Inflow = 1.71 cfs @ 11.97 hrs, Volume= 0.083 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.083 af, Atten= 57%, Lag= 7.1 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.083 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,950.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,953.72' @ 12.09 hrs Surf.Area= 1,045 sf Storage= 1,605 cf (1,501 cf above start)

Plug-Flow detention time= 290.7 min calculated for 0.081 af (97% of inflow)
Center-of-Mass det. time= 260.7 min (1,078.4 - 817.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,950.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,950.00	790	0.0	0	0
1,951.50	790	40.0	474	474
1,953.00	790	40.0	474	948
1,954.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,950.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,950.00' / 1,948.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,950.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,950.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,953.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,954.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.71 cfs @ 12.09 hrs HW=1,953.71' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.71 cfs of 11.56 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.80 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Weir Controls 0.67 cfs @ 1.50 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,950.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond RG 9: Small Rain Garden

Inflow Area = 0.391 ac, 41.18% Impervious, Inflow Depth = 2.73" for 25-Year event
Inflow = 1.79 cfs @ 11.97 hrs, Volume= 0.089 af
Outflow = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 46%, Lag= 6.2 min
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.089 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
Starting Elev= 1,930.33' Surf.Area= 790 sf Storage= 104 cf
Peak Elev= 1,933.78' @ 12.07 hrs Surf.Area= 1,069 sf Storage= 1,674 cf (1,570 cf above start)

Plug-Flow detention time= 276.8 min calculated for 0.086 af (97% of inflow)
Center-of-Mass det. time= 247.8 min (1,056.0 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,930.00'	2,534 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,930.00	790	0.0	0	0
1,931.50	790	40.0	474	474
1,933.00	790	40.0	474	948
1,934.50	1,325	100.0	1,586	2,534

Device	Routing	Invert	Outlet Devices
#1	Primary	1,930.00'	**18.0" Round Outlet Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,930.00' / 1,928.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	1,930.33'	**1.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	1,930.00'	**3.000 in/hr Exfiltration over Surface area**
#4	Device 1	1,933.50'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,934.00'	**6.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=1,933.76' (Free Discharge)
└─**1=Outlet Culvert** (Passes 0.91 cfs of 11.66 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.87 fps)
  │ └─**3=Exfiltration** (Passes 0.05 cfs of 0.07 cfs potential flow)
  └─**4=Orifice/Grate** (Orifice Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,930.33' (Free Discharge)
└─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link SP14:

Inflow Area = 1.238 ac, 3.31% Impervious, Inflow Depth = 2.05" for 25-Year event
Inflow = 3.15 cfs @ 12.09 hrs, Volume= 0.211 af
Primary = 3.15 cfs @ 12.09 hrs, Volume= 0.211 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP15:

Inflow Area = 26.014 ac, 13.92% Impervious, Inflow Depth > 1.91" for 25-Year event
Inflow = 22.98 cfs @ 12.10 hrs, Volume= 4.145 af
Primary = 22.98 cfs @ 12.10 hrs, Volume= 4.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP16:

Inflow Area = 1.345 ac, 7.96% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 3.14 cfs @ 12.09 hrs, Volume= 0.212 af
Primary = 3.14 cfs @ 12.09 hrs, Volume= 0.212 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP17:

Inflow Area = 4.417 ac, 23.41% Impervious, Inflow Depth > 2.09" for 25-Year event
Inflow = 5.21 cfs @ 11.94 hrs, Volume= 0.769 af
Primary = 5.21 cfs @ 11.94 hrs, Volume= 0.769 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP18:

Inflow Area = 0.207 ac, 10.14% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 0.85 cfs @ 11.95 hrs, Volume= 0.038 af
Primary = 0.85 cfs @ 11.95 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP19:

Inflow Area = 0.585 ac, 4.10% Impervious, Inflow Depth = 1.89" for 25-Year event
Inflow = 1.60 cfs @ 12.04 hrs, Volume= 0.092 af
Primary = 1.60 cfs @ 12.04 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP20:

Inflow Area = 53.356 ac, 11.14% Impervious, Inflow Depth > 1.89" for 25-Year event
Inflow = 40.81 cfs @ 12.34 hrs, Volume= 8.398 af
Primary = 40.81 cfs @ 12.34 hrs, Volume= 8.398 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP21:

Inflow Area = 7.645 ac, 14.99% Impervious, Inflow Depth > 1.85" for 25-Year event
Inflow = 0.91 cfs @ 12.04 hrs, Volume= 1.181 af
Primary = 0.91 cfs @ 12.04 hrs, Volume= 1.181 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP22:

Inflow Area = 0.225 ac, 11.11% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 0.70 cfs @ 12.04 hrs, Volume= 0.041 af
Primary = 0.70 cfs @ 12.04 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP23:

Inflow Area = 0.280 ac, 13.93% Impervious, Inflow Depth = 2.21" for 25-Year event
Inflow = 0.93 cfs @ 12.02 hrs, Volume= 0.052 af
Primary = 0.93 cfs @ 12.02 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

Summary for Link SP24:

Inflow Area = 17.102 ac, 6.71% Impervious, Inflow Depth = 2.07" for 25-Year event
Inflow = 33.72 cfs @ 12.12 hrs, Volume= 2.948 af
Primary = 33.72 cfs @ 12.12 hrs, Volume= 2.948 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs

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APPENDIX 12-3
INSPECTION AND MAINTENANCE MANUAL

Sugarloaf West Mountain Project

Carrabassett Valley, ME

PREPARED FOR

Boyne Resorts
15 South Ridge Road
PO Box 4500
Newry, Maine, 04261

PREPARED BY

500 Southborough Drive
Suite 105B
South Portland, ME 04106
207.889.3150

April, 2022

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Introduction

VHB has prepared the following Stormwater Management System Inspection & Maintenance Manual and Spill Response Procedures for the Sugarloaf West Mountain Project, located in Carrabassett Valley, Maine. The Site lies within the surface watershed of the South Branch of the Carrabassett River, which is not classified as an Urban Impaired Stream, that ultimately discharges to the Kennebec River. The intent of this plan is to provide the applicant/owner with a list of procedures that document the inspection and maintenance requirements and spill procedures for this development.

Inspection & Maintenance

The following inspection and maintenance program is necessary to keep the Stormwater Management System functioning properly. By following the enclosed procedures, the applicant will be able to maintain the functional design of the Stormwater Management System and maximize its ability to remove sediment and other contaminants from site generated stormwater runoff.

Responsible Party

The oversight of the inspection and maintenance program will be provided by:

Boyne Resorts
15 South Ridge Road
PO Box 4500
Newry, Maine, 04261

During Construction

The following procedures shall be implemented during construction. The Contractor shall adhere to the Erosion and Sediment Control (ESC) Plan associated with the Maine Construction General Permit (MCGP).

Erosion and Sediment Control Plan

- Impervious area, erosion control measures, materials storage areas exposed to precipitation and construction exits shall be inspected, at a minimum, once a week. Additional inspections shall be performed before and within 24 hours after a rainfall event and prior to permanent stabilization.
- BMPs shall be repaired upon discovery of problem and no later than the end of the next working day.
- Significant repairs to BMPs shall be completed within 7 calendar days and prior to a rainfall event.
- A Construction Inspection & Maintenance Log shall be completed for each inspection and maintenance activity.
- Inspection shall be performed by a person with knowledge of erosion and stormwater control which include the standards and conditions in the permit.
- The Inspection & Maintenance Logs shall be accessible to the Maine Department of Environmental Protection staff and a copy shall be provided upon request.
- The permittee shall retain copies of the logs for a period of at least three years from the completion of permanent stabilization.

Post-Construction

The following procedures shall be implemented after construction. The Inspection & Maintenance Plan does not include items and requirements specifically associated with lift related equipment.

Inspection & Maintenance Plan

By implementing the following procedures and following the Post Construction checklist included, the applicant will be able to maintain the functional design of the Stormwater Management System and maximize the system's ability to remove sediment and other contaminants from site generated stormwater runoff.

Regular Maintenance

- Routinely pick up and remove litter from the access roads and parking lots.
- Remove all trash litter from the access roads and parking lots and dispose of properly.

Record Keeping

- Inspections of the stormwater management system shall be conducted in accordance with the Inspection & Maintenance Checklist provided in this Manual.
- A Post-Construction Inspection & Maintenance Log shall be completed for each inspection and maintenance activity.
- Inspection shall be performed by a person with knowledge of erosion and stormwater control which include the standards and conditions in the permit.
- The Inspection & Maintenance Logs shall be accessible to the Maine Department of Environmental Protection staff and a copy shall be provided upon request.
- The permittee shall retain copies of the logs for a period of at least three years from the completion of permanent stabilization.

Re-Certification

- Re-certification shall be submitted within three months of the expiration of each five-year interval from the date of issuance of the permit.
- Submission of re-certification shall include: Identification of repair and erosion problems, Inspection and repair of stormwater system, and evidence that the maintenance plan has been implemented.

Duration of Maintenance

Maintenance as described in the Inspection & Maintenance Plan shall be performed by the Responsible Party unless and until the system is formally accepted by its successor, heirs and assigns, or other entity.

Inspection & Maintenance Checklist

The following pages contain an Inspection & Maintenance Checklists for Construction and Post-Construction requirements and a reduced copy of the Erosion and Sediment Control Plan and Detail Sheets. These forms/plans are provided to assist the applicant with the inspection and maintenance of the Stormwater Management System.

Stormwater Management System

Inspection & Maintenance Checklist - Construction

Best Management Practice	Inspection Frequency	Date Inspected	Inspector Initials	Minimum Maintenance and Key Items to Check	Cleaning or Repair Needed Yes/No (List Items)	Date of Cleaning or Repair	Performed by:
Gravel Access Road	Weekly and after any rainfall	/ /		Filled voids, erosion, breakout			
Silt Sock or Silt Fence Erosion Control Barriers	Weekly and after rainfall ≥0.5"	/ /		Flow around or under barrier, Sediment build up >half barrier height, excessive sag, erosion			
Stone Checkdam	Weekly and after any rainfall	/ /		Sediment build up, broken barrier or stakes			
Stabilized Construction Exit	Weekly and after any rainfall	/ /		Filled voids, runoff/sediments into street			
Erosion Control Blanket	Weekly and after any rainfall	/ /		Cracking, erosion, breakout, sediment buildup			
Diversion Channels	Weekly and after any rainfall	/ /		Maintained, moved as necessary to correct locations, Check for erosion or breakout			
Temporary Sedimentation Traps	Weekly and after any rainfall	/ /		Cracking, erosion, breakout, sediment buildup, contaminants			
Materials Storage Areas	Weekly and after any rainfall	/ /		Maintained, spills, breakout			

Inspector Name and Qualifications _____

Sugarloaf West Mountain Project					
Stormwater Inspection & Maintenance Checklist – Post Construction					
Best Management Practice and Maintenance	Inspection and Maintenance Frequency			Inspector Initials and Date	Inspector Comments and Repairs
	Monthly	Quarterly	As Needed		
Roads and Parking Lots					
Check for erosion and washout of soils onto gravel areas.	X				
Grade as needed.			X		
Drainage Structures and Pipes / Stormwater Outfalls					
Check for sediments, erosion and washout.		X			
Clean and dispose vegetation and sediments legally.			X		
Remove floatable solids and oils.			X		
Replace rip rap at outfalls.			X		
Vegetated Underdrained Soil Filters					
Check for establishment of vegetation, erosion, and clogging		X			
Replace dead vegetation and remove weeds and leaf litter.			X		
Clean and dispose sediments in bottom of basin legally.			X		
Renew media if basin drains in >72 hours after 1-in. rainfall.			X		
Inspect overflow structure.		X			
Replace rip rap.			X		

Sugarloaf West Mountain					
Stormwater Inspection & Maintenance Checklist – Post Construction					
Best Management Practice and Maintenance	Inspection and Maintenance Frequency			Inspector Initials and Date	Inspector Comments and Repairs
	Monthly	Quarterly	As Needed		
Gravel Wetlands					
Check for erosion and sediments		X			
Inspect embankments for signs of seeps or settlement.			Twice Annually		
Mow banks twice max during the growing season. No woody vegetation allowed on banks or near outlet structure			Twice Annually		
Inspect forebay and main cells of wetland for sediment accumulations. Clean and dispose sediments in forebay once sediment reaches 50% of forebay wet volume			Twice Annually		
Unless otherwise prescribed in the landscaping plan, cut back vegetation on the main cell surface to 12" max height			Annually		
Replace rip rap.			X		
Inspect outlet control structure, drain manifolds and low-flow orifices for signs of clogging or leakage. Remove debris and accumulated sediment			Twice Annually		
Wet Ponds					
Check for erosion, establishment of vegetation and sediments		X			
Mow banks twice max during the growing season. No woody vegetation allowed on banks or near outlet structure			Twice Annually		
Inspect embankments for signs of seeps or settlement.			Twice Annually		

Inspect forebay and main cell of pond for sediment accumulations. Clean and dispose sediments in bottom of basin legally once sediment reaches 50% of forebay wet volume			X		
Replace rip rap.			X		
Inspect outlet control structure, gravel drain and low-flow orifices for signs of clogging or leakage. Remove debris and accumulated sediment			Twice Annually		

Spill Response Procedure

Spill response procedure is limited to during the construction of the facility. Spill prevention equipment and training for post-construction operations will be provided by Boyne Resorts.

A. Initial Notification

In the event of a spill the facility and/or construction manager or supervisor will be notified immediately.

Facility Manager (name): _____

Facility Manager (phone): _____

Construction Manager (name): _____

Construction Manager (phone): _____

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. The supervisor will first contact the Fire Department and then notify the Police Department. The fire department is ultimately responsible for matters of public health and safety and should be notified immediately.

B. Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Maine Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the main construction/facility office and readily accessible to all employees. A hazardous waste spill report shall be completed as necessary using the attached form.

Emergency Notification Phone Numbers

1.	FACILITY MANAGER NAME: _____ ALTERNATE CONTACT: NAME: _____	PHONE:_____ CELL: _____, _____ HOME PHONE: _____ PHONE:_____ BEEPER/CELL: _____, _____ HOME PHONE: _____
2.	FIRE & POLICE DEPARTMENT	EMERGENCY: **911**
3.	CLEANUP CONTRACTOR: _____ ADDRESS: _____ _____	PHONE:_____
4.	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)	Oil Spills: **(800) 482-0777** Hazardous Materials: **(800) 452-4664** Central Maine Regional Office: **(800) 452-1942**
5.	NATIONAL RESPONSE CENTER ALTERNATE: U.S. ENVIRONMENTAL PROTECTION AGENCY	PHONE: **(800) 424-8802** EMERGENCY: **(800) 424-8802** BUSINESS (Region 1): **(888) 372-7341**
6.	MAINE EMERGENCY MANAGEMENT AGENCY	PHONE: (**800) 452-8735**

Hazardous Waste / Oil Spill Report

Date: ____/____/_____ Time: _____ AM / PM

Exact location _____

Type of equipment:_____ Make:_____ Size:_____

License or S/N:_____ Weather Conditions:_____

On or near water Yes If yes, name of body of water:_____

No

Type of chemical / oil spilled: _____

Amount of chemical / oil spilled: _____

Cause of spill: _____

_____

_____

Measures taken to contain or clean up spill: _____

_____

_____

Amount of chemical / oil recovered: _____ Method:_____

Material collected as a result of clean up

_____ drums containing: _____

_____ drums containing: _____

_____ drums containing: _____

Location and method of debris disposal:_____

Name and address of any person, firm, or corporation suffering damages:_____

_____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring: :_____

_____

Spill reported to General Office by:_____Time: _____AM / PM

Spill reported to DEP / National Response Center by:_____

DEP Date: ____/_____/_____ Time:_____AM / PM Inspector:_____

NRC Date: ____/_____/_____ Time:_____AM / PM Inspector: _____

Additional comments: _____

_____

C. Assessment - Initial Containment

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. A list of recommended spill equipment to be kept on site is included on the following page.

Emergency Response Equipment

The following equipment and materials shall be maintained at all times and stored in a secure area.

--	SORBENT PADS	2 BALES
--	SORBENT BOOM	100 FEET
--	SAND BAGS (empty)	50
--	SPEEDI-DRI ABSORBENT	5 40# BAGS
--	SQUARE END SHOVELS	1
--	PICK	1
--	PRY BAR	1

SECTION 14. BASIC STANDARDS SUBMISSIONS:

14.A Narrative

The proposed Project is located on a mountainside with varied slopes and terrain that consists primarily of forested areas ranging in slope from 10-45%. Aside from typical surface runoff, there are no known existing erosion problems at the proposed Project location. Protected natural resources and other environmentally sensitive areas have been identified and are discussed in detail in other sections of this application.

An Erosion and Sedimentation Control Plan (E&SC Plan), based on the Department's Maine Erosion and Sedimentation Control BMPs, will be provided to the Contractor and will include the location and design of temporary erosion control measures, such as perimeter controls and stabilization standards. For the Project, the E&SC Plan measures have been incorporated directly into the trail grading plans and civil sheets (see Appendix 14-1). Design and implementation of stormwater control features such as basins, soil filters and vegetated buffers will be shown on the plans as needed.

Ski trail construction represents a specialized type of earthwork that will be undertaken with significant oversight and participation by Sugarloaf staff. A typical method of earthwork on steep ski trail grades is via an excavator secured to a bulldozer winch cable. This method results in an maximized work area established by the length of the winch cable, which is generally no longer than 200 ft. This serves to limit extensive exposed soils on the trail and provides an opportunity to install permanent temporary stabilization and water bar diversion prior to the excavation team advancing down the mountain. Sheet CA-1.01 found appendix 14.1 was developed to support this approach.

14.B Implementation Schedule

The best method to limit erosion and sedimentation is to prevent it from occurring by protecting exposed soils or sensitive areas. The location of the limits of work and sensitive resource areas will be provided to the Contractor. Limits of work and resource areas will be clearly demarcated in the field and maintained and updated as necessary by the Project's Environmental Monitor.

The Project has been broken down into essentially three Phases for construction, though these phases may be multi-year construction efforts. Please see the Phasing Plan for visual representation of the Project phasing.

Following presumed Project approval in fall of 2022, the design team will prepare construction plans and bidding documents for the first phase of construction work. It is anticipated that bidding and contractor selection will occur summer into fall of 2022 in preparation of a late fall or winter construction start.

Fall/winter of 2022 is anticipated to consist of timber harvesting and clearing efforts for the phase one construction limits of disturbance, including select Phase 1 ski trails.

The 2023 construction season will kick-off the Phase 1 infrastructure including new lift, roads, stormwater BMPs, utilities, and condominium site work. It is anticipated that Phase 1 improvements will extend into and include the 2024 construction season.

Phase II and subsequent phases will be considered based on the timing of Phase 1 build out and pace of real estate sales, but is likely to start in 2025.

Within Phase 1 construction, clearing and soils disturbance will be limited to an area manageable by, and scaled to, the number of crews or amount of construction effort. Perimeter sediment controls will be installed prior to earthwork in a given area. Gravel, riprap, permanent erosion control blanket, and erosion control mix covered surfaces will be deemed stable, signaling the ability for initial clearing of additional areas. Binder pavement, where paving is specified, will generally lag behind completion of gravel surfaces for one year, allowing time for settlement and construction maturation. Surface paving will be further delayed until risk of damage from construction activity is reduced.

14.C Erosion and Sedimentation Control Plan

The goal of the E&SC Plan is to provide contractors, environmental monitors, and agency personnel with a single, cohesive set of erosion control specifications for the Project. The Plan is designed to provide specifications for the installation and implementation of soil erosion and

sedimentation control measures while allowing adequate flexibility of the application of the most appropriate measures based on site-specific conditions. During construction and continuing until all disturbed areas are properly restored and stabilized after construction, the contractor(s) will adhere to the details and specifications contained in the E&SC Plan. Drainage devices, site access and erosion control features are anticipated to be inspected weekly during construction, as well as promptly after each period of significant rain or snow runoff, and any damage to erosion controls will be repaired. Accumulated silt, broken branches and other debris which interferes with drainage or sediment collection will be removed. Sugarloaf personnel or their designated representatives will ensure that the procedures are followed by regularly inspecting all work and prescribing corrective steps to be taken where necessary.

Typical erosion control measures established by the E&SC Plan consists of a variety of non-structural measures including temporary mulching and seeding; permanent mulching and seeding; dormant seeding and winter mulching; temporary check dams (haybale and stone); silt fence, and hay bale or erosion control mix erosion control barriers to be utilized as appropriate.

14.D Details and Specifications

Detailed drawings showing the plan view of the facility with proposed component locations, including location, function, and ground area of the Project, as well as landowner and political boundaries will be provided to the Contractor.

Construction of the proposed Project will require site grading and excavating. A comprehensive set of erosion and sediment control measure specifications will be included in the E&SC Plan, though it is unlikely that every measure will be implemented for the Project. Having specifications for multiple erosion control measures will allow the contractors and environmental monitor to select the most effective approaches for the site and conditions at the time of construction. No more than 10 acres will be disturbed at any one time without temporary stabilization measures in place.

14.E Design Calculations

The design of the erosion and sedimentation control measures will be based on the MDEP's Maine Erosion and Sedimentation Control BMPs. Sediment trap sizing requirements for ski trail work are included on sheet CA-1.01.

14.F Stabilization Plan

Requirements for soil stabilization are included with the E&SC Plans. Typically, loaming, seeding, and mulching is performed after the completion of construction activities to promote ground cover and erosion control. Loaming, seeding, and mulching shall be done in accordance with the Project E&SC Plan.

14.G Winter Construction Plan

Construction activities conducted between October 15 and April 15 will follow the procedures included in the Project E&SC Plan and BMPs. Construction activities were designed to follow the erosion and sedimentation control BMPs that were developed by the MDEP for winter construction, as applicable (Maine Erosion and Sediment Control Best Management Practices, Manual for Designers and Engineers, October 2016). More frequent, heavier application of temporary mulch, increased dormant seeding rates, the substitution or additional use of erosion control mix berms as erosion control barriers, and other supplemental erosion controls will be used as required. Prior to winter shut down, Sugarloaf will ensure that all soils are properly stabilized and that slopes are adequately protected to prevent erosion during winter storms and spring thaw. This may include the application of erosion control mix on exposed soils located within a slope in place of straw or hay mulch.

APPENDIX 14-1
EROSION & SEDIMENTATION CONTROL PLAN

Site Plans

Issued for	**Review**
Date Issued	**April 29, 2021**
Latest Issue	**April 29, 2021**

Sugarloaf West Mountain Development

5092 Sugarloaf Access Road
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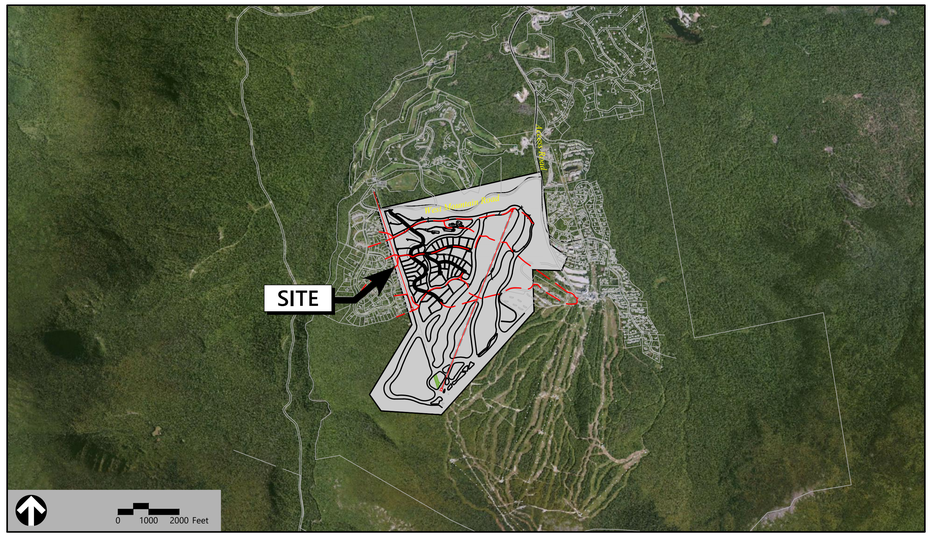

Owner

Sugarloaf Mountain Corporation
c/o Boyne USA, Inc.
3951 Charlevoix Avenue
Petoskey, MI 49770

Applicant

Sugarloaf Mountain Corporation
c/o Boyne USA, Inc.
3951 Charlevoix Avenue
Petoskey, MI 49770

Sheet Index

Sheet Number	Sheet Title
G-0.00	Cover Sheet
G-0.01	General Civil Legend and Notes
LA-1.00	Master Plan
LA-2.00	Phasing Plan
CG-1.00	Overall Ski Trails Grading
CG-1.01	Ski Trails Grading
CG-1.02	Ski Trails Grading
CG-1.03	Ski Trails Grading
CG-1.04	Ski Trails Grading
CG-1.05	Ski Trails Grading
CG-1.06	Ski Trails Grading
CG-1.07	Ski Trails Grading
CG-1.08	Ski Trails Grading
CG-1.09	Ski Trails Grading
CG-1.10	Ski Trails Grading
CG-1.11	Ski Trails Grading
CG-1.12	Ski Trails Grading
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CG-2.01	Stream Crossing Plan and Profile
CG-2.02	Stream Crossing Plan and Profile
CG-2.03	Stream Crossing Plan and Profile
CG-2.04	Stream Crossing Plan and Profile
CG-2.05	Stream Crossing Plan and Profile
CG-2.06	Stream Crossing Plan and Profile
CG-2.07	Stream Crossing Plan and Profile
CG-2.08	Stream Crossing Plan and Profile
CG-2.09	Stream Crossing Plan and Profile
CG-2.10	Stream Crossing Plan and Profile
CG-2.11	Stream Crossing Plan and Profile
CG-2.12	Stream Crossing Plan and Profile
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CG-3.00	Stormwater Facility Plan and Profile
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CG-3.03	Stormwater Facility Plan and Profile
CG-3.04	Stormwater Facility Plan and Profile
CG-3.05	Stormwater Facility Plan and Profile
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SW-1.1	Proposed Conditions Hydrology Plan
SW-1.2	Proposed Drainage Area Plan
SW-1.3	Jurisdictional Stormwater Plan
SW-1.4	BMP Location Plan
~~SW-2~~	~~Existing Conditions Hydrology Plan~~
~~CA-1.00~~	~~Erosion and Sediment Control Narrative~~
~~CA-1.01~~	~~Typical Ski Trail Work Area Erosion and Sediment Control Plan~~
~~V-1.00~~	~~Overall Existing Conditions Plan~~
~~V-1.01~~	~~Existing Conditions Plan~~
~~V-1.02~~	~~Existing Conditions Plan~~
~~V-1.03~~	~~Existing Conditions Plan~~
~~V-1.04~~	~~Existing Conditions Plan~~
~~C-1.01~~	~~Site Details~~
C-1.02	Site Details
~~C-1.03~~	~~Utility Details~~
~~C-1.04~~	~~Erosion Prevention and Sediment Control Details~~
C-1.05	Erosion Prevention and Sediment Control Details
C-1.06	Stormwater Details
C-1.07	Stormwater Details

Reference Drawings

SD-1 through SD-8 Subdivision Plan of Land, by VHB, Dated August 20, 2021

Notes

Drawings indicated with ~~strike-through~~ are not included with these revised submitted plans.

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STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED PROFESSIONAL ENGINEER

VHB Project : 55310.01 Sugarloaf West Mountain
Issued for : Review 09/24/2021

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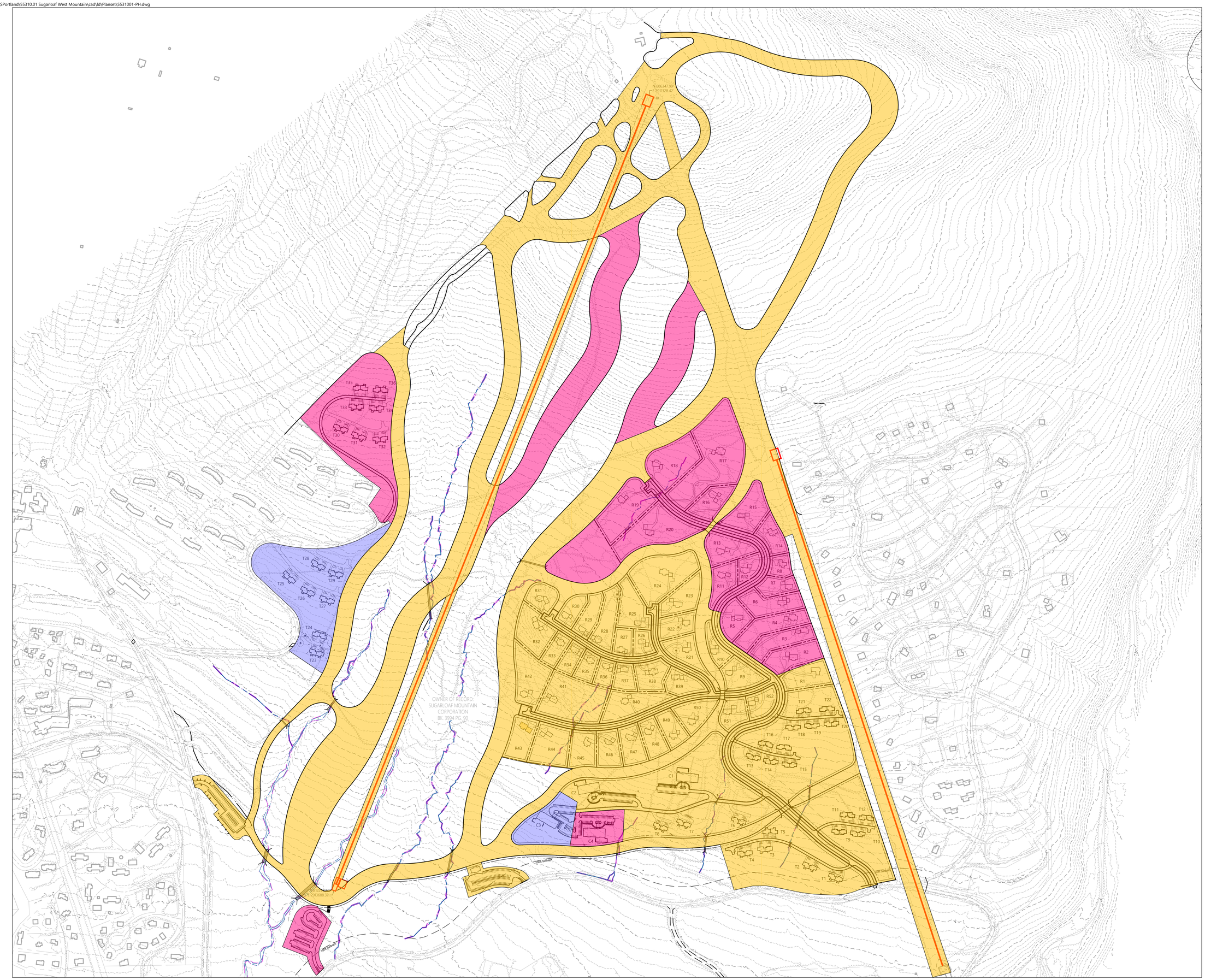

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SUGARLOAF

LEGEND

- Phase One
- Phase Two
- Phase Three

0 125 250 500 Feet

Sugarloaf Mtn Corp
West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN | Checked by PS

Issued for: Review

Date: April 29, 2022

Not For Construction

Drawing Title: Phasing Plan

Drawing Number: LA-2.00

Sheet of 63

Project Number: 55310.01

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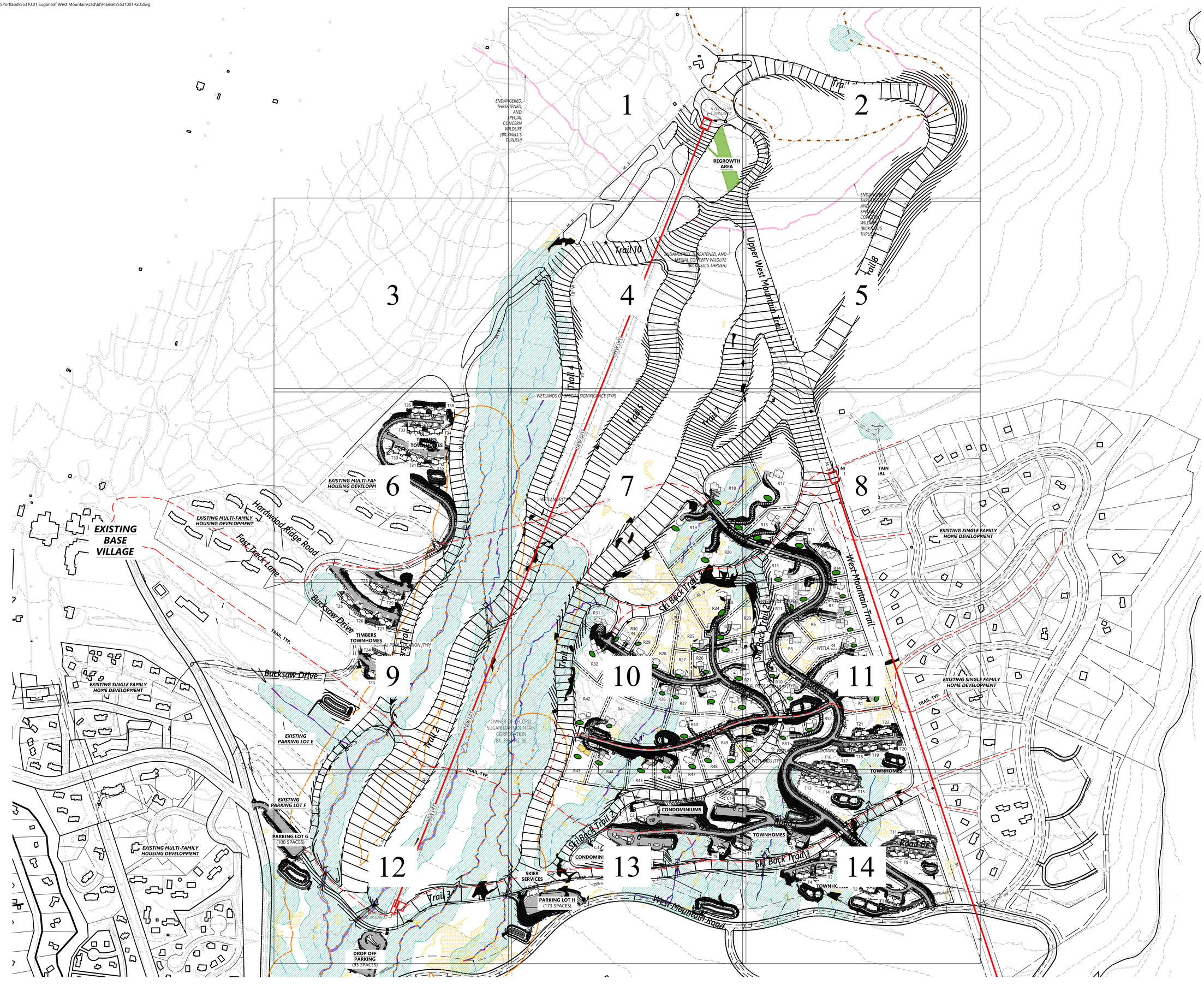

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Drawing Title

Overall Ski Trails Grading

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Drawing Number

CG-1.00

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Project Number 55310.01

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2,700' CONTOUR. SEASONAL RESTRICTIONS APPLY FOR WORK ABOVE THIS ELEVATION. CONFIRM REQUIREMENTS WITH OWNER PRIOR TO WORK.

ENDANGERED, THREATENED, AND SPECIAL CONCERN WILDLIFE [BICKNELL'S THRUSH]

EXISTING SKI TRAIL (TYP.)

PROPOSED SNOWMAKING VALVE HOUSE. FINAL LOCATION TBD.

PREVIOUSLY PERMITTED SNOWMAKING WATERLINE

EXISTING BULLWINKLES BISTRO

N 806347.99'
E 291328.42'

PROPOSED TOP TERMINAL

PROPOSED 14' x 16' SNOWMAKING VALVE HOUSE. FINAL LOCATION TBD.

EXISTING LIFT TOP STATION TO BE REMOVED

REGROWTH AREA

EXISTING LIFT AND TOWERS TO BE REMOVED. THIS PORTION OF EXISTING LIFTLINE TO BE ALLOWED TO VEGETATE NATURALLY.

0 25 50 100 Feet

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Carrabassett Valley, ME 04947

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Drawing Title: **Ski Trails Grading**

Drawing Number: **CG-1.01**

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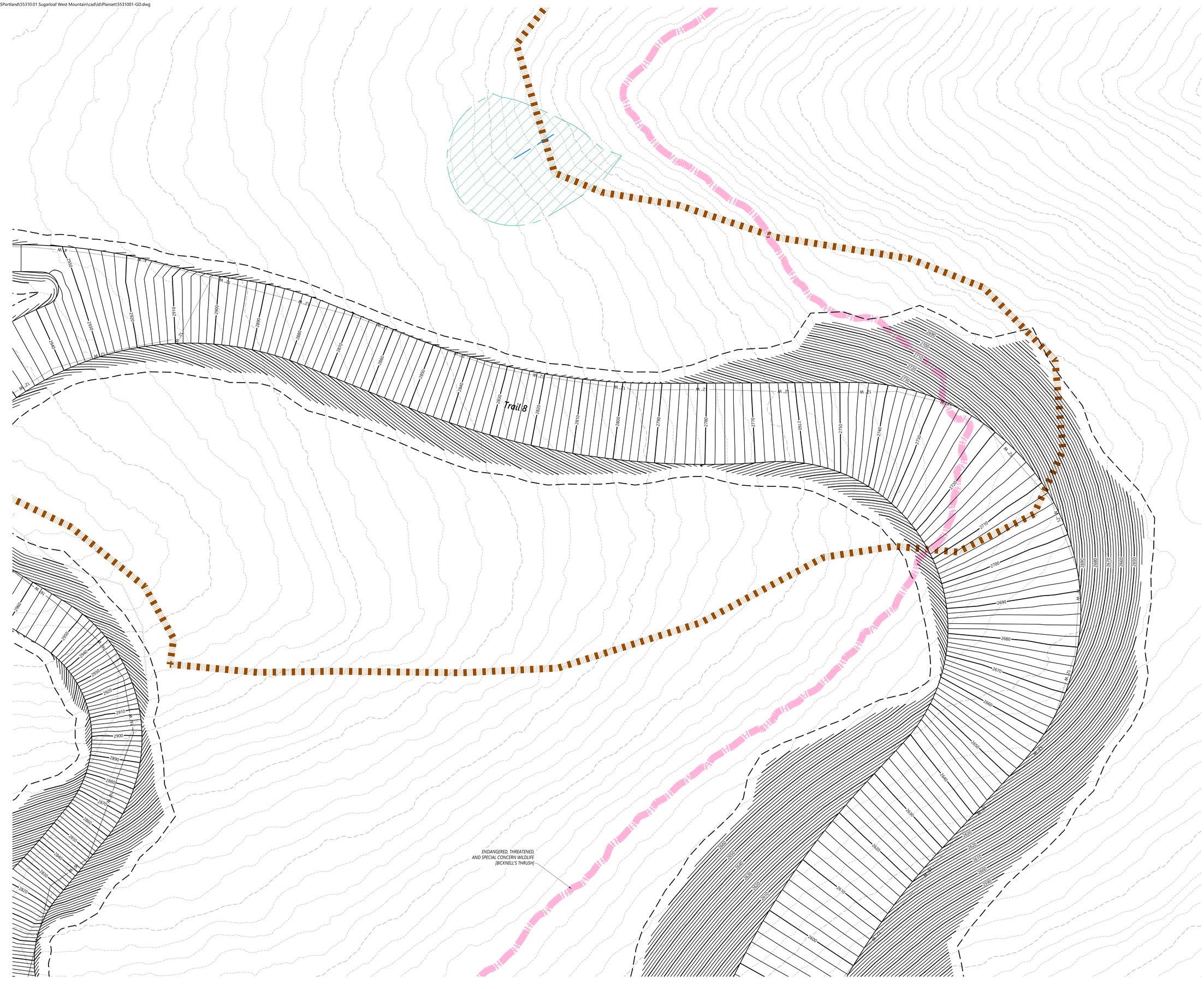

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.02

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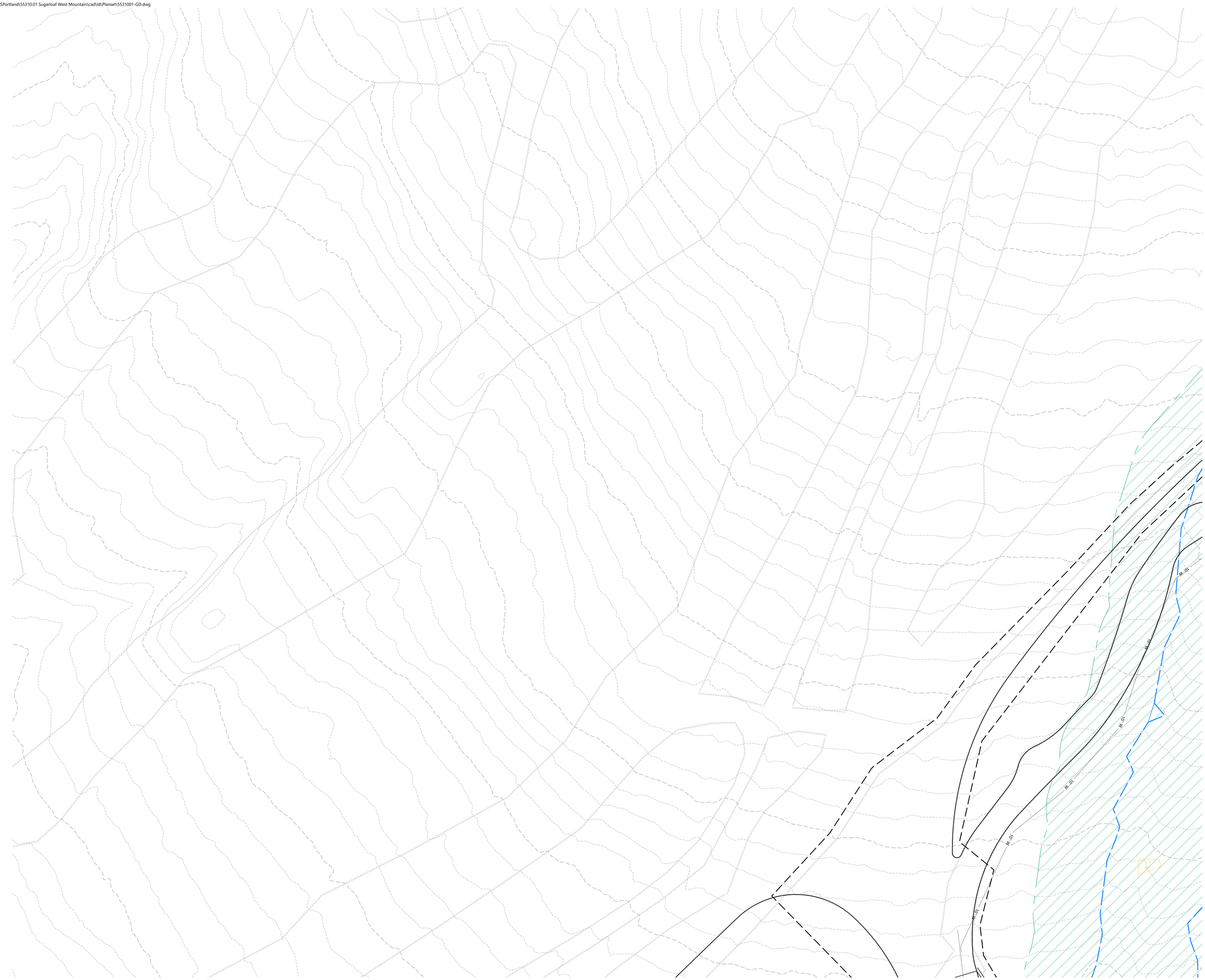

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.03

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WETLAND IMPACTS
FEATURE ID 2020-1
7,354 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-1
30 SF

PROPOSED 14' x 14'
SNOWMAKING
VALVE HOUSE.
FINAL LOCATION TBD.

Trail 10

ENDANGERED, THREATENED, AND SPECIAL CONCERN WILDLIFE
(BICKNELL'S THRUSH)

WETLAND IMPACTS
FEATURE ID 2020-119
1,429 SF

WETLAND IMPACTS
FEATURE ID 2020-7
713 SF

WETLAND IMPACTS
FEATURE ID 2020-102
2,065 SF

INDIAN HILL

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0 25 50 100 Feet

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Drawing Title
Ski Trails Grading

Drawing Number
CG-1.04

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.05

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.06

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WETLANDS OF SPECIAL SIGNIFICANCE (TYP.)

WETLANDS (TYP.)

TRAIL TYP.

Trail 4

Trail 5

Trail 7

WETLAND IMPACTS
FEATURE ID 2020-201
731 SF

WETLAND IMPACTS
FEATURE ID 2020-5
420 SF

WETLAND IMPACTS
FEATURE ID 2020-101
1,066 SF

WETLAND IMPACTS
FEATURE ID 2020-39
751 SF

WETLAND IMPACTS
FEATURE ID 2020-38
4,986 SF

WETLAND IMPACTS
FEATURE ID 2020-37
1,298 SF

WETLAND IMPACTS
FEATURE ID 2020-124
1,674 SF

WETLAND IMPACTS
FEATURE ID 2020-123
2,192 SF

WETLAND IMPACTS
FEATURE ID 2020-402
2,949 SF

WETLAND IMPACTS
FEATURE ID 2020-407
4,318 SF

WETLAND IMPACTS
FEATURE ID 2020-121
4,154 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-202
14 SF

WETLAND IMPACTS
FEATURE ID 2020-203
1,201 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-204
315 SF

WETLAND IMPACTS
FEATURE ID 2020-204
85 SF

WETLAND IMPACTS
FEATURE ID 2020-402
3,464 SF

WETLAND IMPACTS
FEATURE ID 2020-11
491 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-35
17 SF

WETLAND IMPACTS
FEATURE ID 2020-35
27,173 SF

R18

R19

R20

Road A

0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.07

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Sheet 12 of 63

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WETLAND IMPACTS
FEATURE ID 2020-401
532 SF

PROPOSED
SNOWMAKING
VALVE HOUSE
FINAL LOCATION TBD

WETLAND IMPACTS
FEATURE ID 2020-200
812 SF

NEW WEST MOUNTAIN
LIFT TOP TERMINAL

West Mountain Trail

Bridge 3
(Ski Only)

R17

R16

R15

R14

R13

EXISTING SINGLE FAMILY
HOME DEVELOPMENT

0 25 50 100 Feet

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Sugarloaf Mtn Corp
West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Apprvd.

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Date: April 29, 2022

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.08

STATE OF MAINE
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Project Number: 55310.01

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T28

T29

T25

T26

T27

T24

T23

TIMBERS TOWNHOMES

Timbers Trail

Trail 2

Bucksaw Drive

TRAIL, TYP.

EXISTING PARKING LOT E

CULVERT #1910 (CPP)
00 FT. LENGTH, 10%

CULVERT #1913 (CPP)
24 IN. DIA., 200 FT. LENGTH, 5%

CULVERT #1911 (CPP)
24 IN. DIA., 60 FT. LENGTH, 3%

UNKNOWN CULVERT

WETLAND IMPACTS
FEATURE ID 2020-403
1,042 SF

VERNAL POOL LOCATION (TYP)

WETLAND IMPACTS
FEATURE ID 2020-116
400 SF

WETLAND IMPACTS
FEATURE ID 2020-48
2,066 SF

NEW LOOP

TRAIL, TYP.

UNKNOWN CULVERT

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.09

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R31
R30
R29
R28
R27
R26
R25
R24
R22
R32
R33
R34
R35
R36
R37
R38
R39
R40
R41
R42
R43
R44
R48
R49

Ski Back Trail 3
Trail 3
Road E
Road D
Road C

WETLAND IMPACTS
FEATURE ID 2020-35
27,173 SF

WETLAND IMPACTS
FEATURE ID 2020-42
1,174 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-43
637 SF

WETLAND IMPACTS
FEATURE ID 2020-43
450 SF

WETLAND IMPACTS
FEATURE ID 2020-44
6,270 SF

WETLAND IMPACTS
FEATURE ID 2020-417
815 SF

WETLAND IMPACTS
FEATURE ID 2020-45
70 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-416
7 SF

WETLAND IMPACTS
FEATURE ID 2020-53
4,790 SF

WETLAND IMPACTS
FEATURE ID 2020-12
10,441 SF

WETLAND IMPACTS
FEATURE ID 2020-126
365 SF

0 25 50 100 Feet

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West Mountain Expansion

5092 Access Road
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WETLAND IMPACTS (WOSS)
FEATURE ID 2020-12
2,505 SF

WETLAND IMPACTS
FEATURE ID 2020-12
10,441 SF

WETLAND IMPACTS
FEATURE ID 2020-13
58 SF

WETLANDS OF SPECIAL SIGNIFICANCE (TYP)

R8

R7

R11

R23

R6

WETLAND IMPACTS
FEATURE ID 2020-302
837 SF

WETLAND IMPACTS
FEATURE ID 2020-12
10,441 SF

Ski Back Trail 2

R4

R5

WETLANDS (TYP)

WETLAND IMPACTS
FEATURE ID 2020-127
3,154 SF

WETLAND IMPACTS
FEATURE ID 2020-208
3,183 SF

WETLAND IMPACTS
FEATURE ID 2020-209
676 SF

R3

WETLAND IMPACTS
FEATURE ID 2020-404
12,881 SF

R2

R21

R10

Road A

EXISTING SINGLE FAMILY
HOME DEVELOPMENT

TRAIL TYP.

R9

WETLAND
IMPACTS
FEATURE ID
2020-16
926 SF

R1

WETLAND IMPACTS
FEATURE ID 2020-404
12,881 SF

Bridge 2
(Ski Under)

R52

WETLAND IMPACTS
FEATURE ID 2020-404
12,881 SF

T21

T22

R50

WETLAND IMPACTS
FEATURE ID 2020-130
560 SF

R51

T20

T19

T18

T16

T17

WETLANDS (TYP)

SPECIAL SIGNIFICANCE (TYP)

TOWNHOMES

0 25 50 100 Feet

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West Mountain Expansion

5092 Access Road
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Drawing Title: Ski Trails Grading

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EXISTING
PARKING LOT F

PARKING LOT G
(100 SPACES)

DROP OFF
PARKING
(93 SPACES)

WETLAND IMPACTS
FEATURE ID 2020-117
421 SF

WETLAND IMPACTS
FEATURE ID 2020-33
615 SF

WETLAND IMPACTS
FEATURE ID 2020-32
10,304 SF

WETLANDS OF SPECIAL
SIGNIFICANCE (TYP)

Trail 3

N 812278.17
E 2913688.32

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0 25 50 100 Feet

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R43 R44 R45 R46 R47

C1 C2 C3 C4 T8

CONDOMINIUMS

CONDOMINIUMS

SKIER SERVICES

PARKING LOT H
(173 SPACES)

Ski Back Trail2

100ft Setback

West Mountain Road

WETLAND IMPACTS
FEATURE ID 2020-52
1,645 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-40
5 SF

WETLAND IMPACTS
FEATURE ID 2020-226
4,496 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-51
6 SF

WETLAND IMPACTS
FEATURE ID 2020-30
11,740 SF

WETLAND IMPACTS
FEATURE ID 2020-412
264 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-411
10 SF

WETLAND IMPACTS
FEATURE ID 2020-411
1,794 SF

WETLAND IMPACTS
FEATURE ID 2020-31
650 SF

WETLAND IMPACTS
FEATURE ID 2020-227
1,051 SF

UNKNOWN CULVERT

UNKNOWN CULVERT

UNKNOWN CULVERT

UNKNOWN CULVERT

UNKNOWN CULVERT

CULVERT #11 (CMP)
18 IN. DIA., 35 FT. LENGTH, 3%
REPLACE EXISTING CULVERT AT ROAD WITH NEW 36" HDPE. FIELD VERIFY INVERTS

CULVERT #10 (CMP)
18 IN. DIA., 45 FT. LENGTH, 5%

CULVERT #9 (CMP)
18 IN. DIA., 40 FT. LENGTH, 5%

CULVERT #8 (CMP)
24 IN. DIA., 45 FT. LENGTH, 3%

CULVERT #12 (CPP)
24 IN. DIA., 40 FT. LENGTH, 2%

CULVERT #13 (CPP)
24 IN. DIA., 30 FT. LENGTH, 2%

CULVERT #14 (CPP)
24 IN. DIA., 40 FT. LENGTH, 2%

REPLACE EXISTING CULVERT AT ROAD WITH NEW 36" HDPE. FIELD VERIFY INVERTS

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Drawing Number
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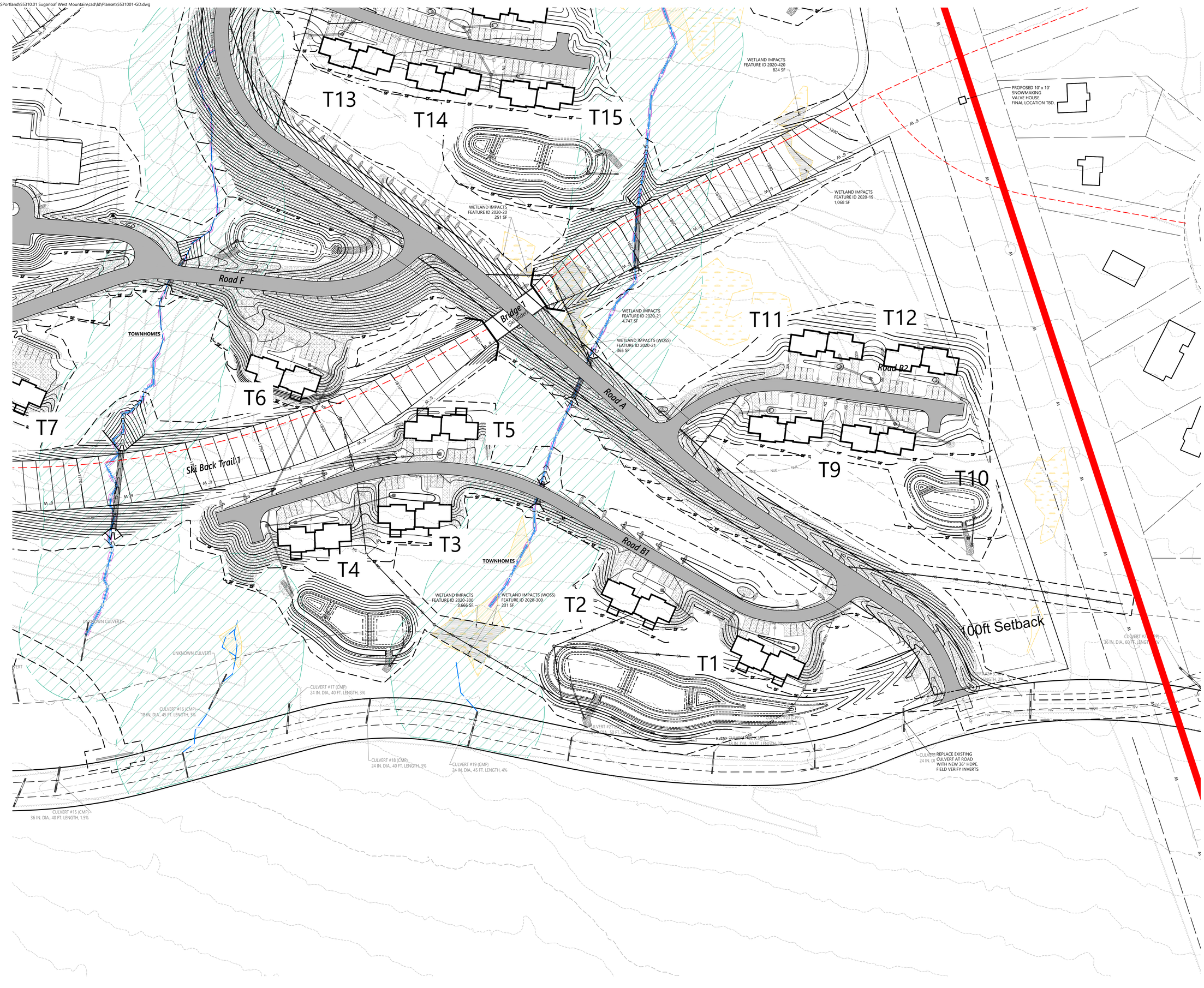

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0 125 250 500Feet

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Drawing Title: Overall Stream Crossing Plan

Drawing Number: CG-2.00

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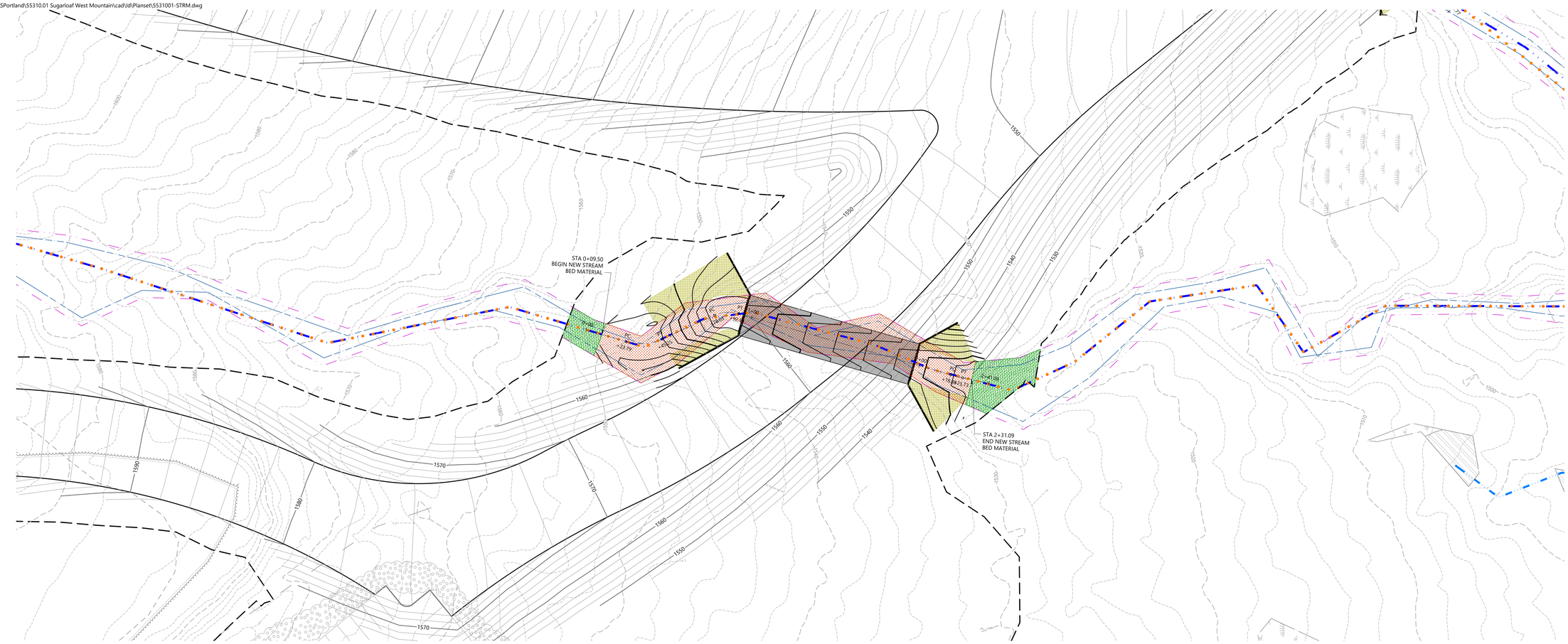

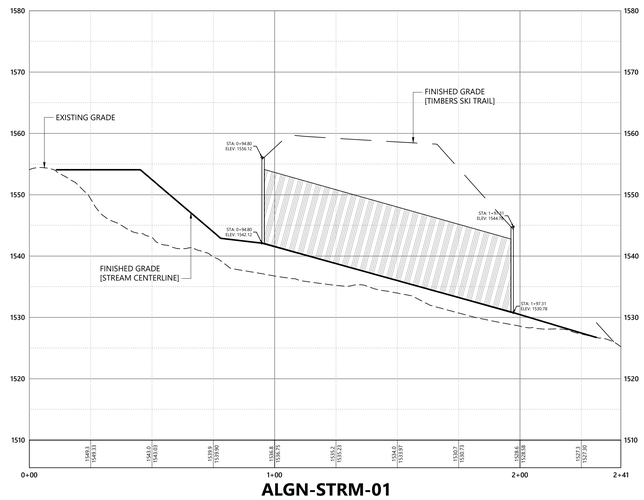

ALGN-STRM-01

STREAM CROSSING 1

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	102.5± Feet
PIPE DIMENSIONS	24' SPAN X 12' RISE
UPSTREAM INVERT	1542.12± Feet
DOWNSTREAM INVERT	1530.78± Feet
SLOPE	0.11 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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Stream Crossing Plan and Profile

Drawing Number
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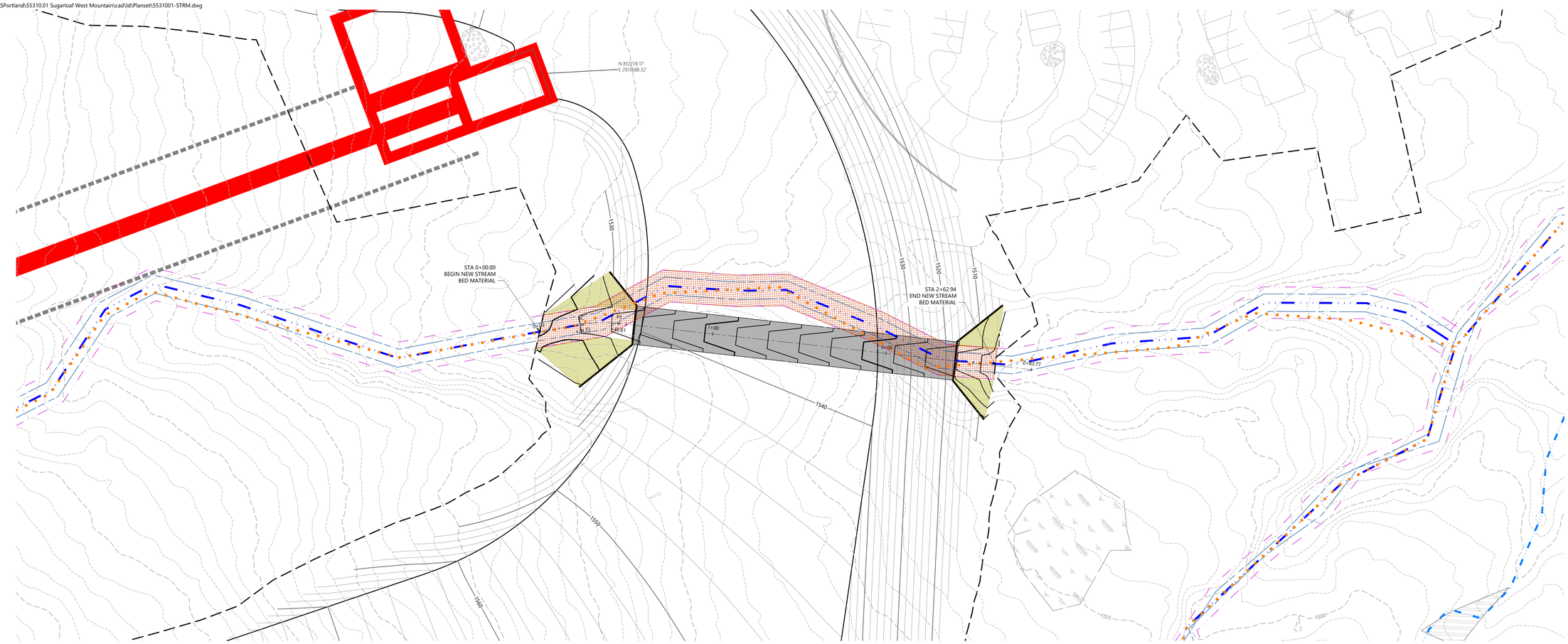

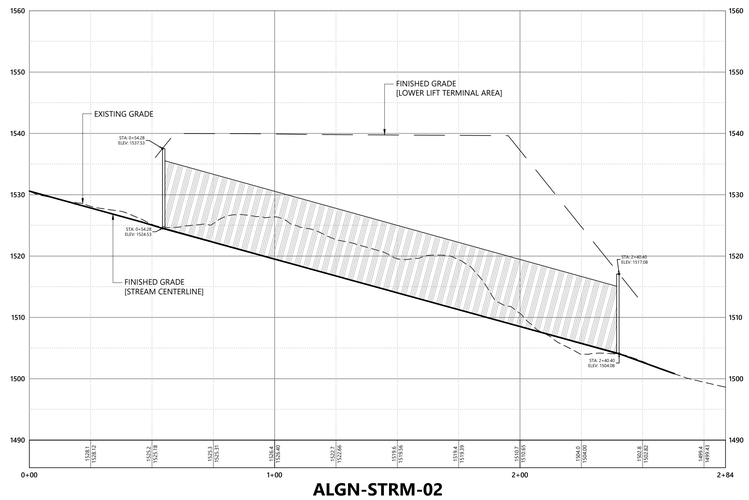

ALGN-STRM-02

STREAM CROSSING 2

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	186.0± Feet
PIPE DIMENSIONS	22' SPAN X 11' RISE
UPSTREAM INVERT	1524.53± Feet
DOWNSTREAM INVERT	1504.08± Feet
SLOPE	0.11 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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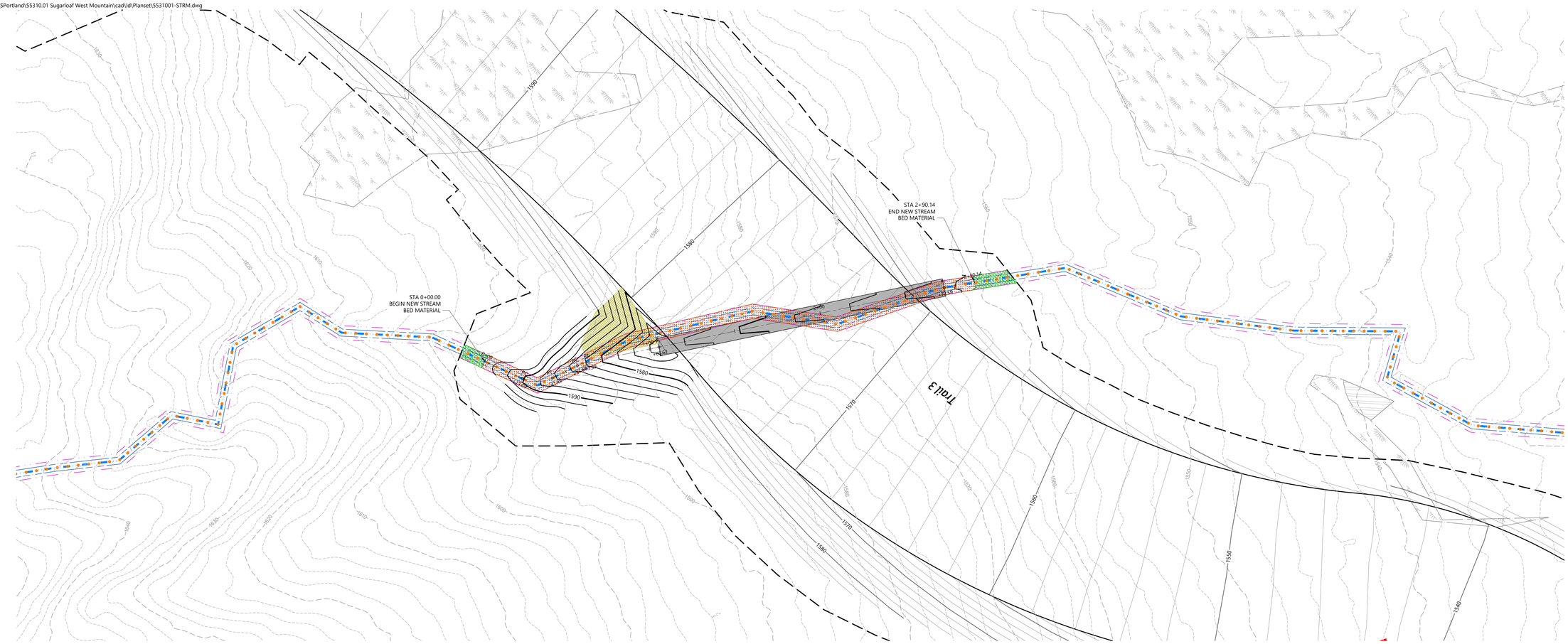

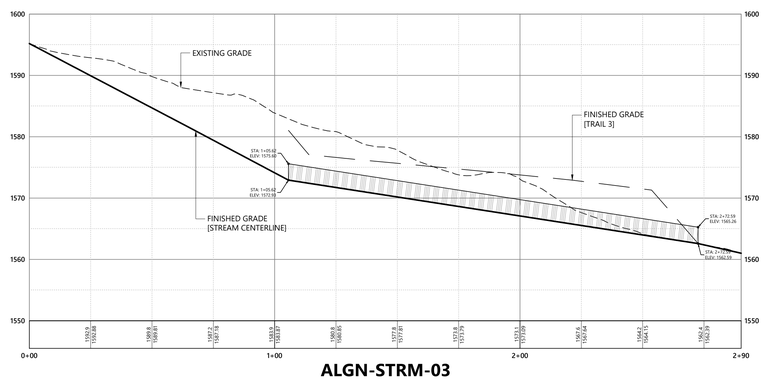

ALGN-STRM-03

STREAM CROSSING 3

BOX

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	167.0± Feet
PIPE DIMENSIONS	10.17' SPAN X 2.67' RISE
UPSTREAM INVERT	1572.93± Feet
DOWNSTREAM INVERT	1562.59± Feet
SLOPE	0.06 FT/FT
WINGWALLS	N/A
UPSTREAM ENDWALL DIMENSION	N/A
DOWNSTREAM ENDWALL DIMENSION	N/A

TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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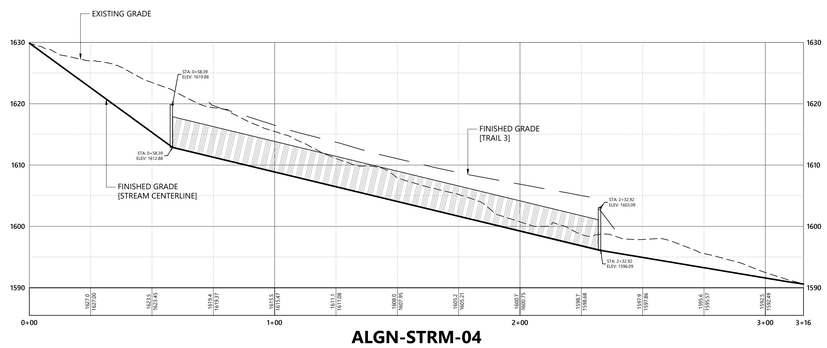

ALGN-STRM-04

STREAM CROSSING 4

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	174.5± Feet
PIPE DIMENSIONS	9' SPAN X 5' RISE
UPSTREAM INVERT	1612.88± Feet
DOWNSTREAM INVERT	1596.09± Feet
SLOPE	0.10 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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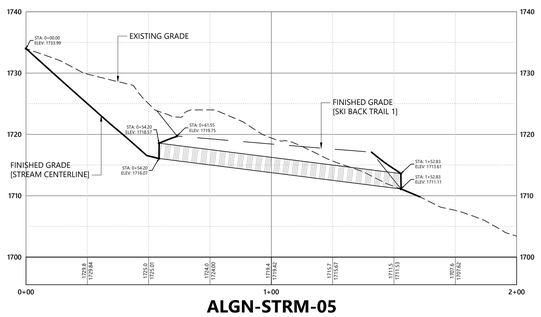

ALGN-STRM-05

STREAM CROSSING 5

BOX

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	98.5± Feet
PIPE DIMENSIONS	8.75' SPAN X 2.50' RISE
UPSTREAM INVERT	1716.07± Feet
DOWNSTREAM INVERT	1711.11± Feet
SLOPE	0.05 FT/FT
WINGWALLS	N/A
UPSTREAM ENDWALL DIMENSION	N/A
DOWNSTREAM ENDWALL DIMENSION	N/A

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

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Drawing Title
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Drawing Number
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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

STREAM CROSSING 6A

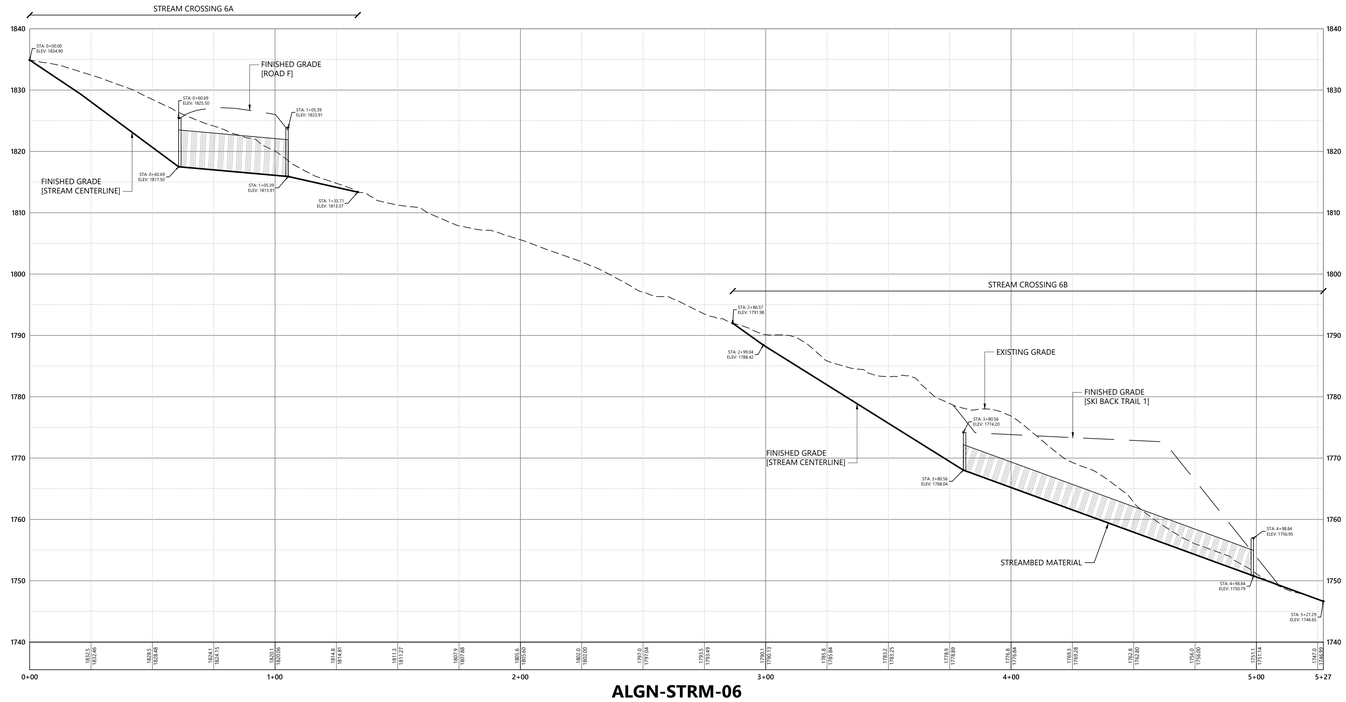
SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	12
PIPE LENGTH	44.5± Feet
PIPE DIMENSIONS	6' SPAN X 3.2' RISE
UPSTREAM INVERT	1817.50± Feet
DOWNSTREAM INVERT	1815.91± Feet
SLOPE	0.04 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 6B

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	118.5± Feet
PIPE DIMENSIONS	8' SPAN X 4.2' RISE
UPSTREAM INVERT	1768.04± Feet
DOWNSTREAM INVERT	1750.79± Feet
SLOPE	0.15 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



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Project Number 55310.01

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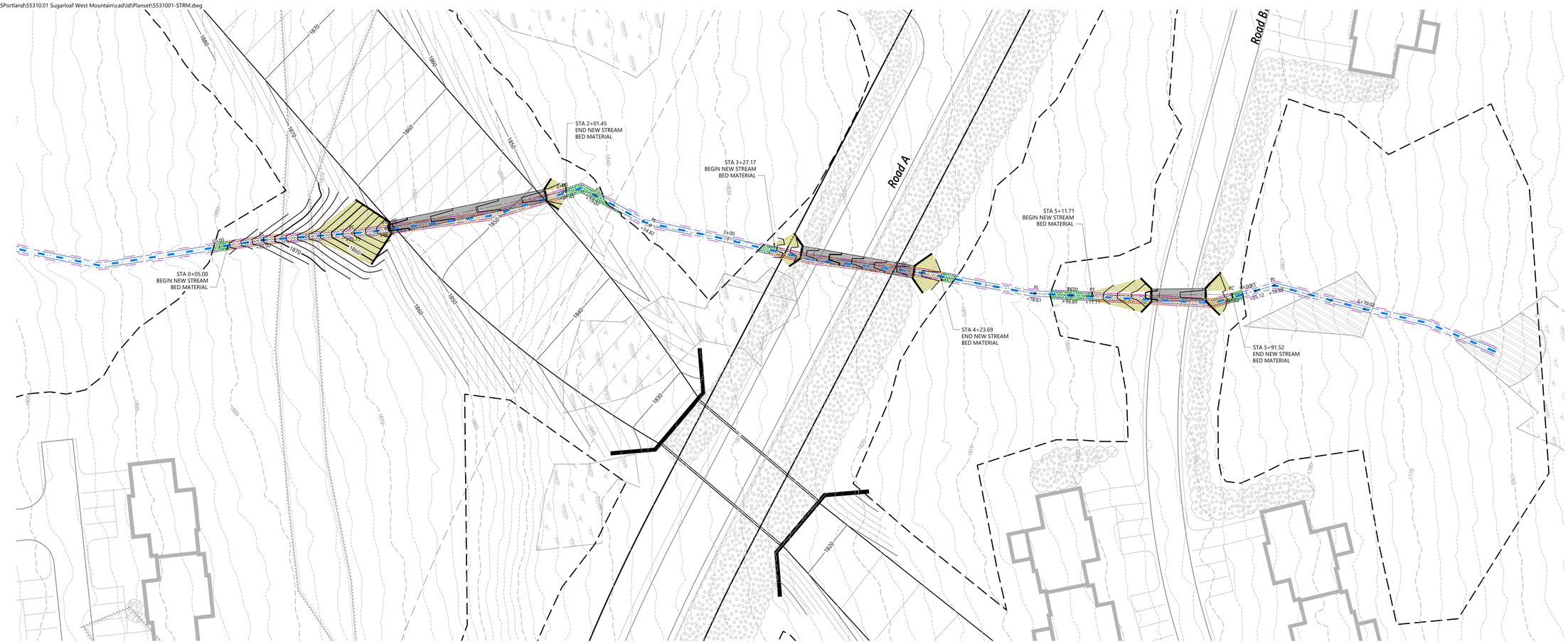


STREAM CROSSING 7A

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	92.5± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1849.85± Feet
DOWNSTREAM INVERT	1842.92± Feet
SLOPE	0.07 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 7B

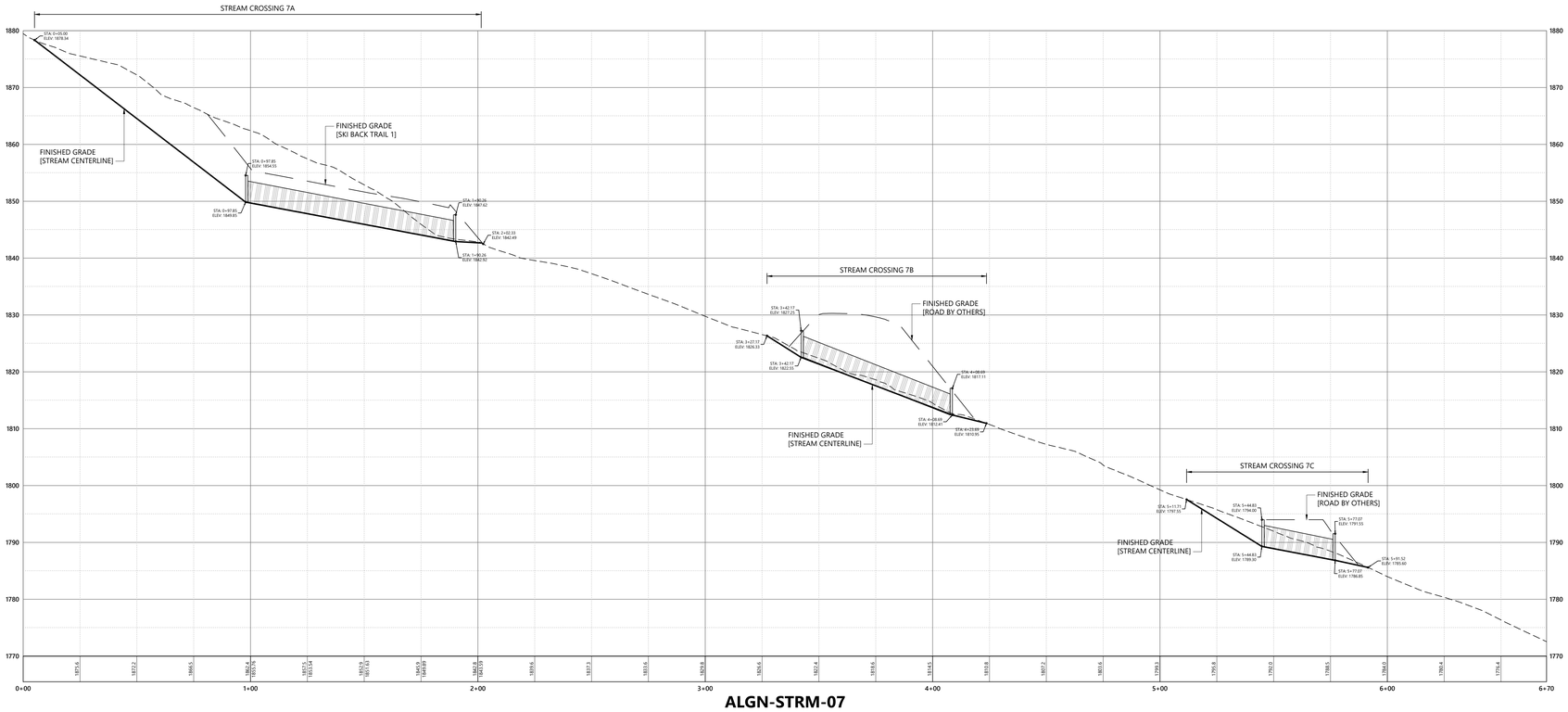
SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	66.5± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1823.29± Feet
DOWNSTREAM INVERT	1813.86± Feet
SLOPE	0.15 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 7C

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	32.0± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1789.30± Feet
DOWNSTREAM INVERT	1786.85± Feet
SLOPE	0.08 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

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Drawing Number: **CG-2.07**

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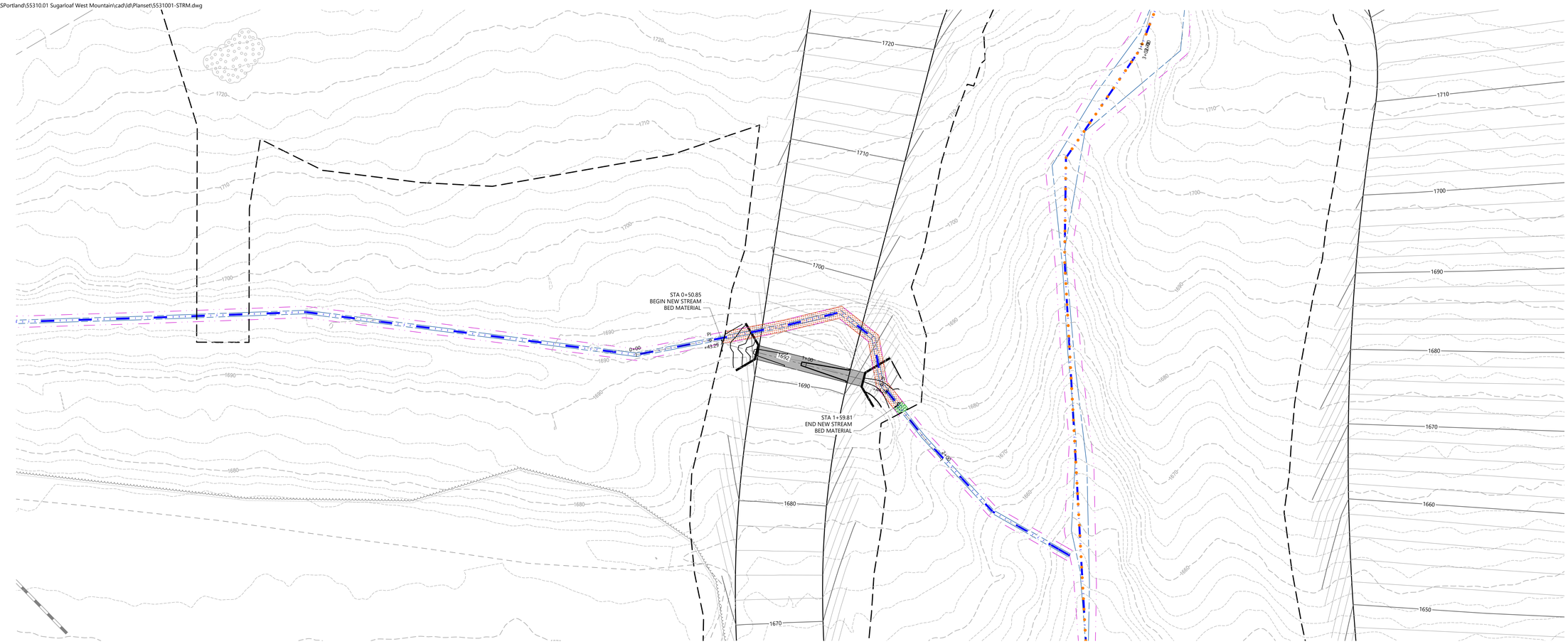

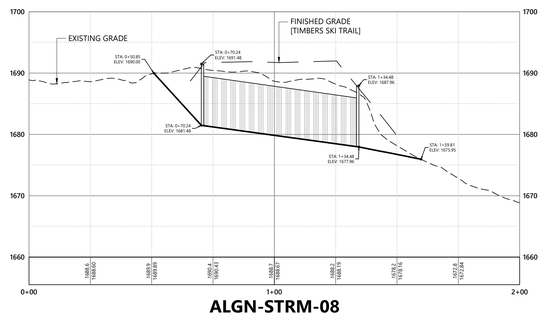

ALGN-STRM-08

STREAM CROSSING 8

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	64.0± Feet
PIPE DIMENSIONS	8' SPAN X 4.2' RISE
UPSTREAM INVERT	1681.48± Feet
DOWNSTREAM INVERT	1677.96± Feet
SLOPE	0.06 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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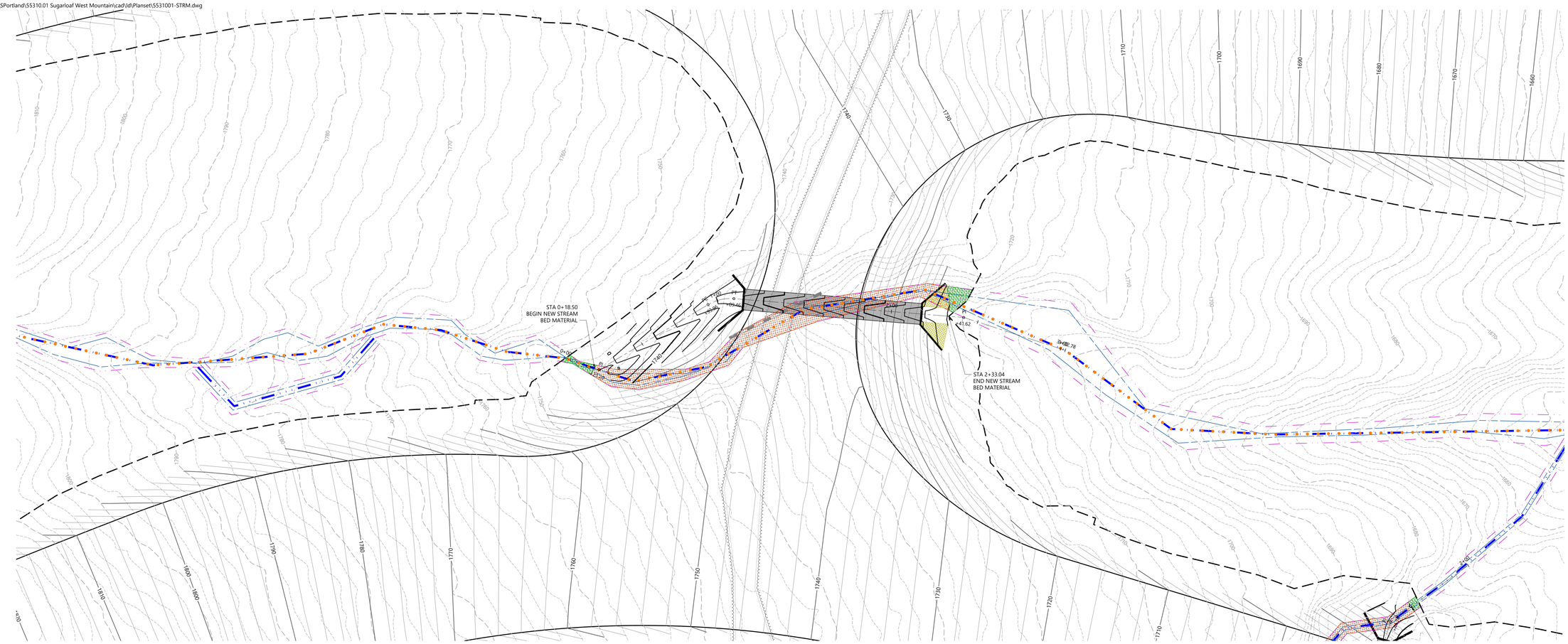

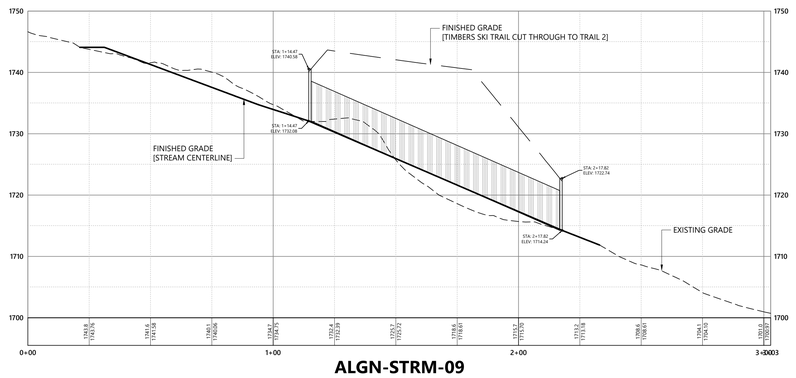

ALGN-STRM-09

STREAM CROSSING 9

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	103.0± Feet
PIPE DIMENSIONS	12' SPAN X 6.5' RISE
UPSTREAM INVERT	1732.08± Feet
DOWNSTREAM INVERT	1714.24± Feet
SLOPE	0.18 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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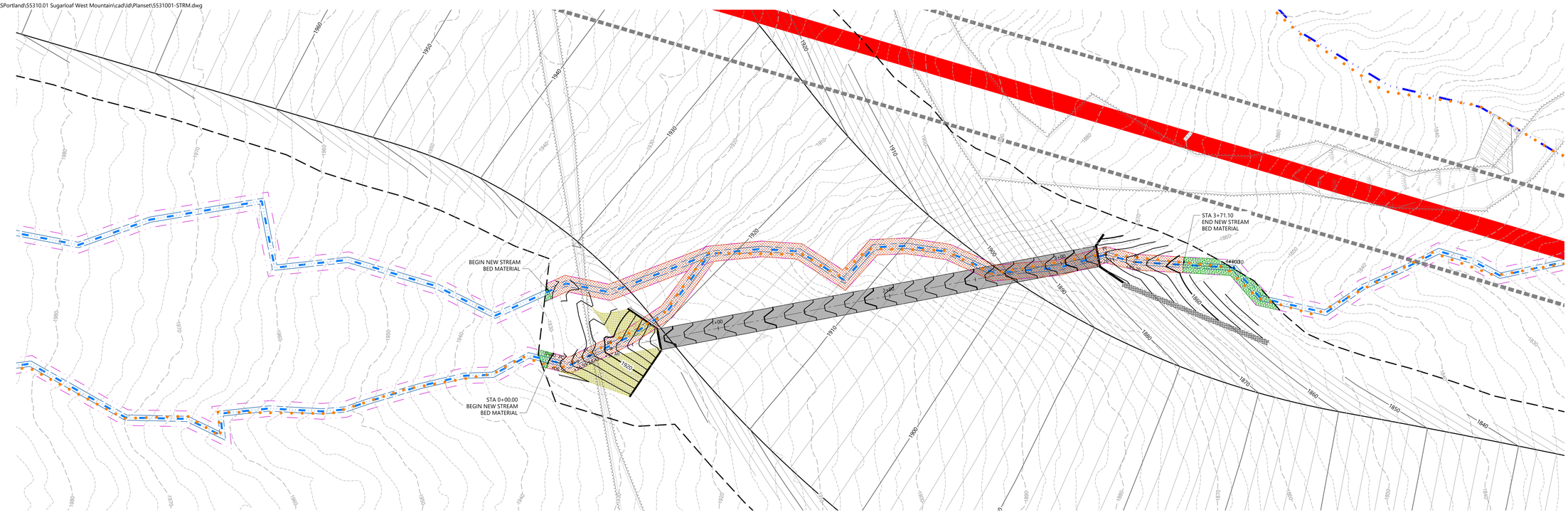
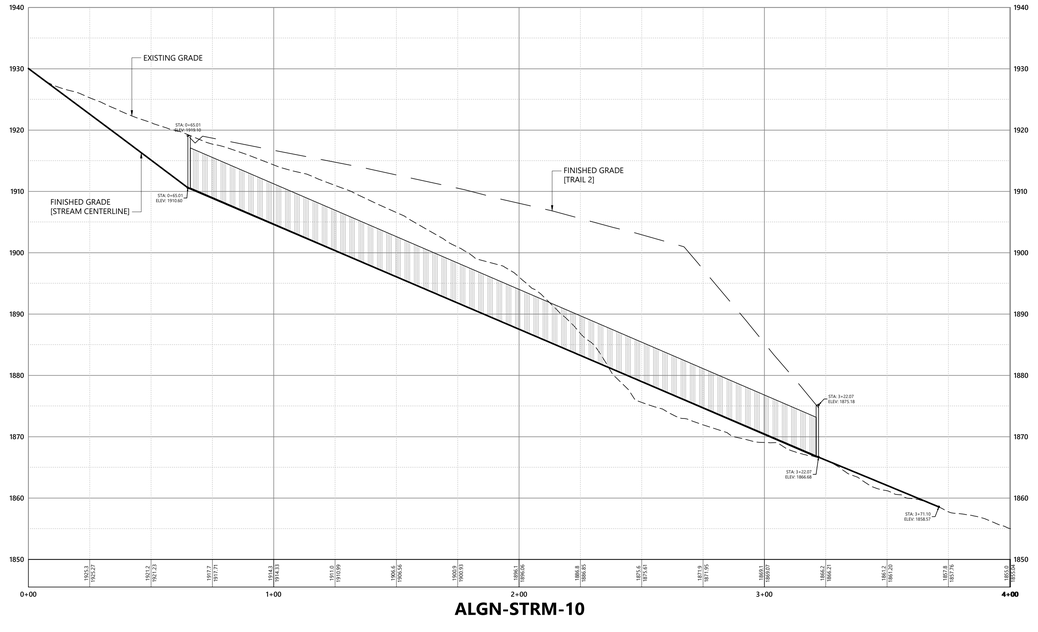


STREAM CROSSING 10

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	257.0± Feet
PIPE DIMENSIONS	12' SPAN X 6.5' RISE
UPSTREAM INVERT	1910.60± Feet
DOWNSTREAM INVERT	1866.68± Feet
SLOPE	0.17 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



ALGN-STRM-10

TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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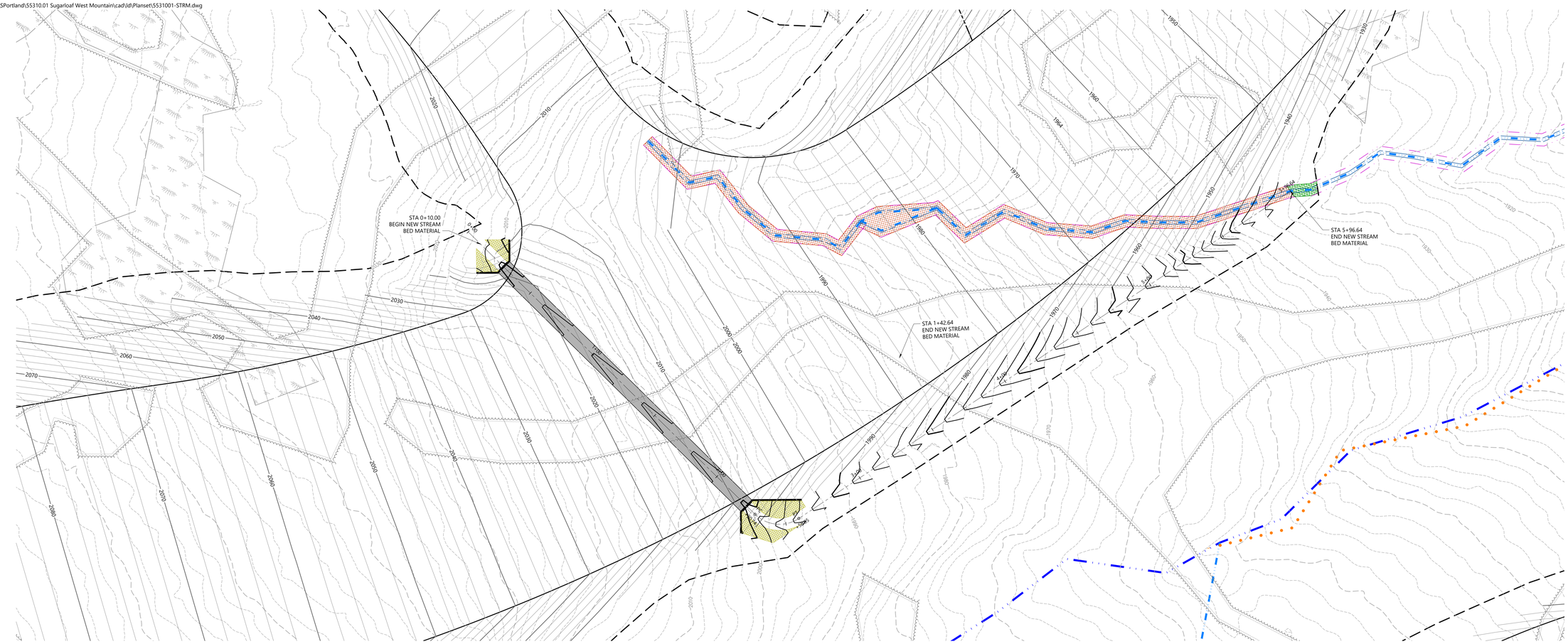

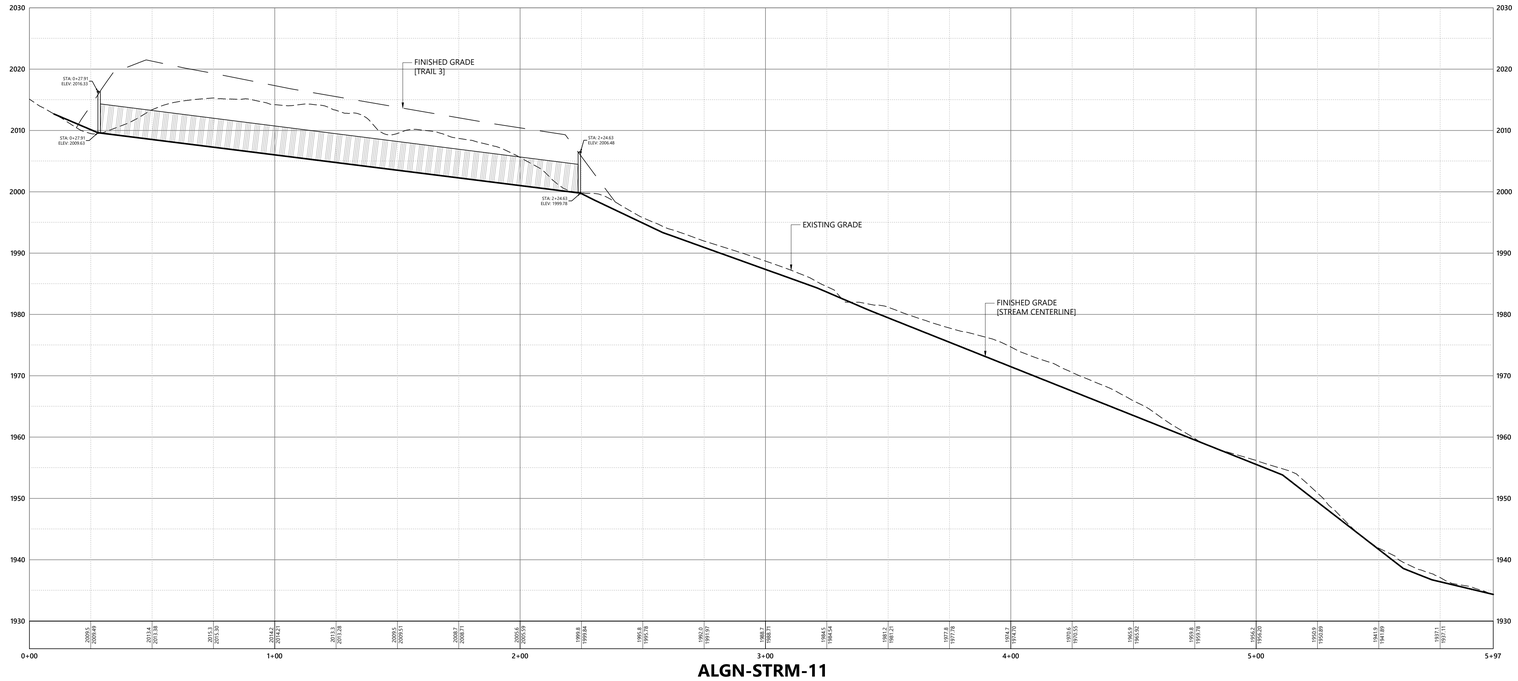

STREAM CROSSING 11

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	197.0± Feet
PIPE DIMENSIONS	9' SPAN X 4.7' RISE
UPSTREAM INVERT	2009.63± Feet
DOWNSTREAM INVERT	1999.78± Feet
SLOPE	0.05 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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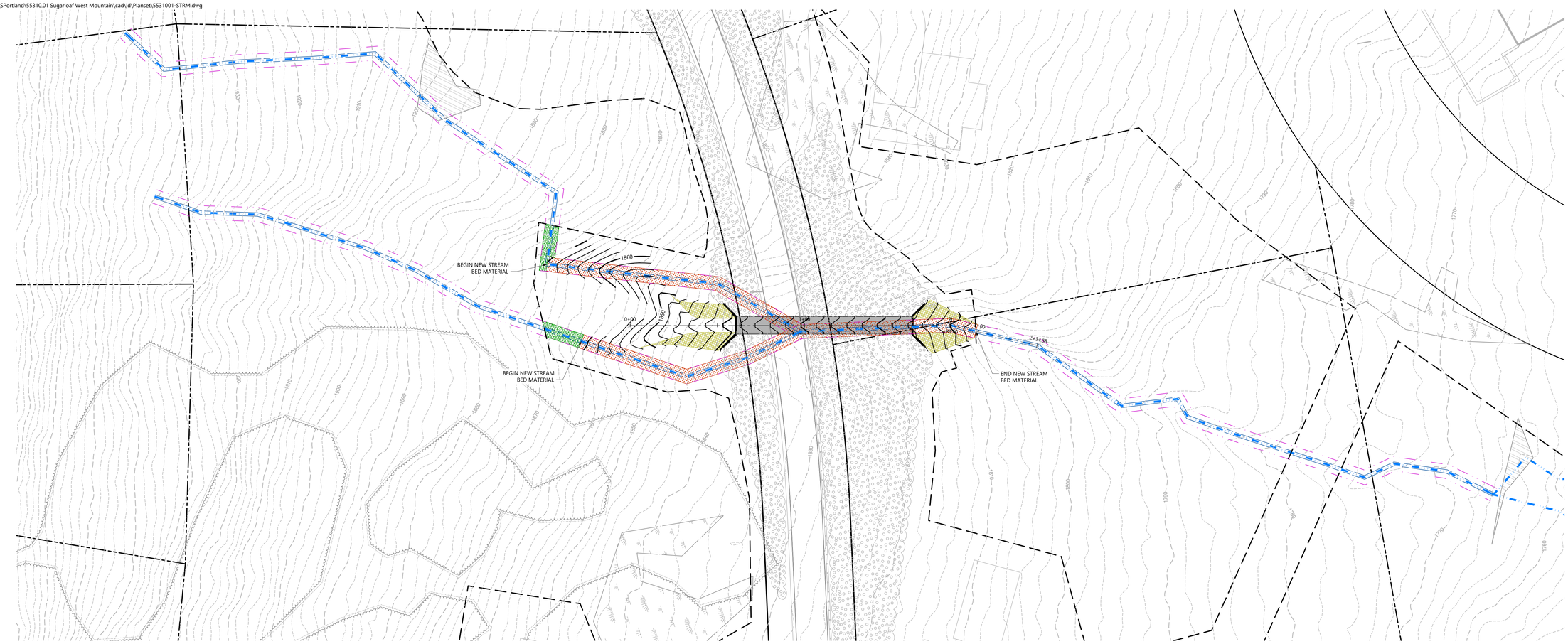

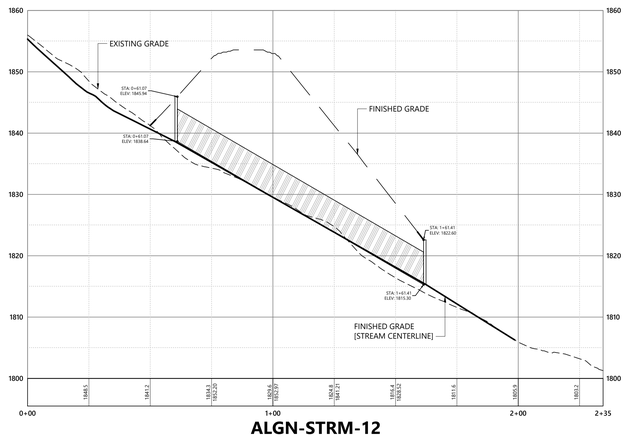

ALGN-STRM-12

STREAM CROSSING 12

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	100.0± Feet
PIPE DIMENSIONS	10' SPAN X 5.3' RISE
UPSTREAM INVERT	1838.64± Feet
DOWNSTREAM INVERT	1815.30± Feet
SLOPE	0.23 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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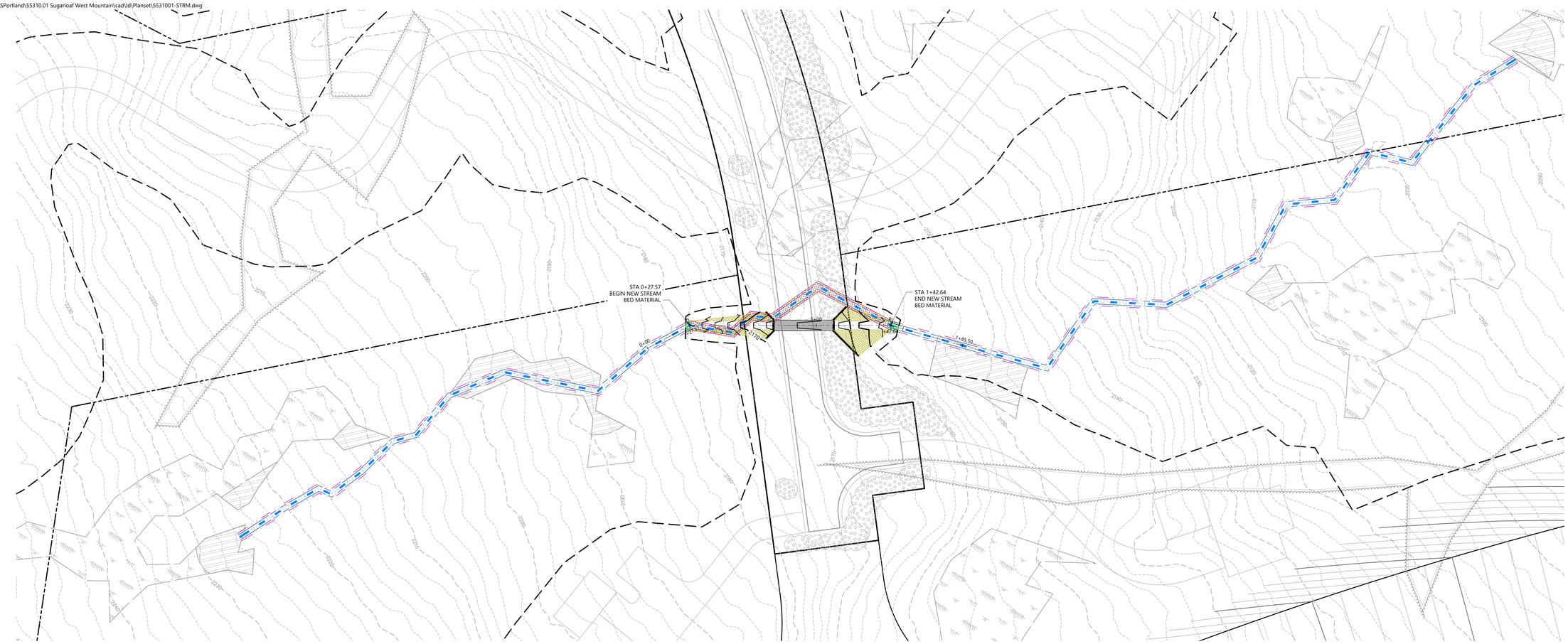

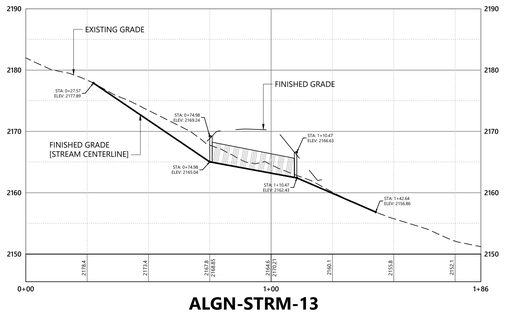

ALGN-STRM-13

STREAM CROSSING 13

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	35.5± Feet
PIPE DIMENSIONS	6' SPAN X 3.2' RISE
UPSTREAM INVERT	2165.04± Feet
DOWNSTREAM INVERT	2162.43± Feet
SLOPE	0.08 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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TEMPORARY STREAM IMPACT AREAS

PERMANENT STREAM IMPACT AREAS

RIPRAP SLOPE STABILIZATION

Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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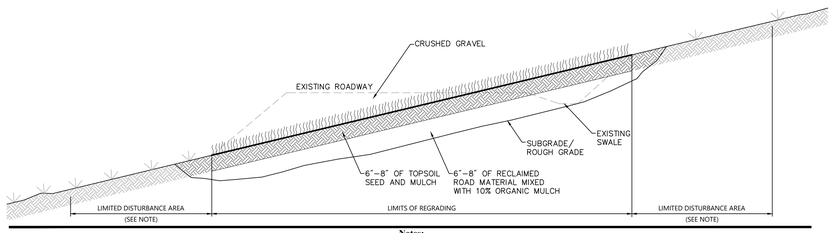


Notes:

RECLAMATION PROCEDURE:

1. REMOVE ROAD MATERIAL USING A BULLDOZER TO A DEPTH OF 12 INCHES BELOW APPROXIMATE FINAL GRADE. TEMPORARY STOCKPILE MATERIAL IN AN UPLAND AREA FOR USE IN ACHIEVING FINAL GRADE (SEE ATTACHED ROADWAY RECLAMATION – TYPICAL SECTION);
   a. INSTALL SILT FENCE TO SURROUND SOIL STOCKPILE(S)
   b. IF STOCKPILED MATERIAL WILL NOT BE USED WITHIN 14 DAYS, APPLY MULCH FOR TEMPORARY STABILIZATION
2. STOCKPILED MATERIAL SHOULD BE MIXED WITH APPROXIMATELY 10% COMPOSTED ORGANIC MATTER U.S. ARMY CORPS OF ENGINEERS (USACE) – NEW ENGLAND DISTRICT – REGULATORY DIVISION. 2010. NEW ENGLAND DISTRICT COMPENSATORY MITIGATION GUIDANCE., AND PLACED TO A DEPTH OF 8 TO 6 INCHES WITHIN THE EXCAVATED AREA;
   a. THIS MATERIAL SHOULD BE LIGHTLY COMPACTED TO MINIMIZE THE EFFECT OF LATER SETTLING (I.E., WITH A LIGHT WEIGHT TRACKED VEHICLE SUCH AS A BOBCAT).
3. CLEAN TOPSOIL (I.E., REASONABLY FREE OF NONORGANIC REFUSE SUCH AS PLASTICS, AS WELL AS CHEMICAL CONTAMINANTS SUCH AS HERBICIDES) AND WITH AN ORGANIC MATTER CONTENT OF BETWEEN 10 AND 20%, SHOULD BE PLACED TO A DEPTH OF 6 TO 8 INCHES ON THE SUB-GRADE MATERIAL TO ACHIEVE FINAL GRADE;
   a. THE TOPSOIL SHOULD BE LIGHTLY COMPACTED IN A SIMILAR MANNER TO THE SUB-GRADE MATERIAL; THE BOBCAT SHOULD MOVE IN A DIRECTION THAT IS PERPENDICULAR TO THE SLOPE TO CREATE MICROTOPOGRAPHY WHICH WILL INHIBIT DIRECTED RUNOFF AND POTENTIALLY EROSIVE RILLS.
4. THE GRADED AREA SHOULD BE SEEDED AS SOON AS POSSIBLE TO ENSURE SITE STABILIZATION.
5. THE SEED MIX SHOULD INCLUDE A MIX OF NATIVE SPECIES WHICH CONTAIN BOTH ANNUAL AND PERENNIAL SPECIES TO ENSURE QUICK AND LASTING COVERAGE (SEE TABLE 1 FOR REPRESENTATIVE SEED MIX).
   a. SEED MIX MAY BE APPLIED BY HYDRO-SEEDING, BY MECHANICAL SPREADING, OR BY HAND (FOR SMALLER AREAS).
   b. IF SEED IS APPLIED BY MECHANICAL OR HAND SPREADING METHODS, THE RESTORED AREA SHOULD BE MULCHED IMMEDIATELY USING STRAW MULCH TO MINIMIZE THE PRESENCE OF UNDESIRABLE SPECIES (I.E., INVASIVE SPECIES); MULCH SHOULD BE APPLIED AT A RATE OF 2 TONS (100–200 BALES) PER ACRE.

TABLE 1

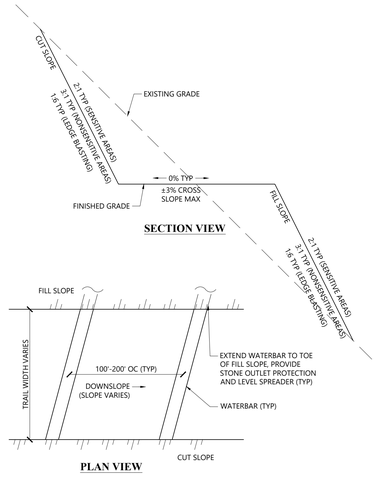
PROPOSED SEED MIX FOR ROAD RECLAMATION

COMMON NAME	SCIENTIFIC NAME
RED FESCUE	FESTUCA RUBA
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM
SWITCH GRASS	PANICUM VIRGATUM
ANNUAL RYE	ELYMUS VIRGINICUS
BIG BLUESTEM	ANDROPOGON GERARDII
INDIAN GRASS	SORGHASTRUM NUTANS
DEER TONGUE	PANICUM CLANDESTINUM
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA
SOFT RUSH	JUNCUS EFFUSUS
PATH RUSH	JUNCUS TENUIS
ROUGH BENTGRASS	AGROSTIS SCABRA

- SPECIFIED SEED MIX IS THE NEW ENGLAND LOGGING ROAD MIX (PROPRIETARY BLEND) FROM NEW ENGLAND WETLAND PLANTS, INC. HTTP://WWW.NEWP.COM – OR APPROVED EQUAL
- SEED SHOULD BE APPLIED AT A MINIMUM RATE OF 20 LBS/ACRE (1 LB / 2,000 SF)

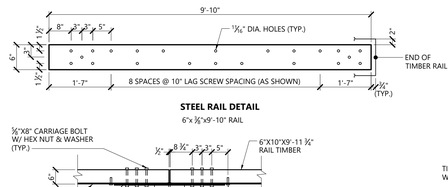
Roadway Reclamation Detail — ST-06

N.T.S. Source: VHB

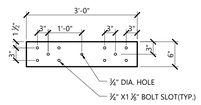


Typical Ski Trail Design — 6/16

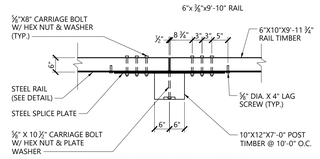
N.T.S. Source: VHB VT_LD



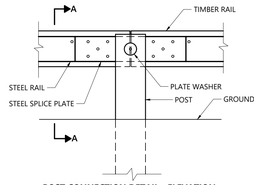
STEEL RAIL DETAIL
6"x ⅜"x9'-10" RAIL



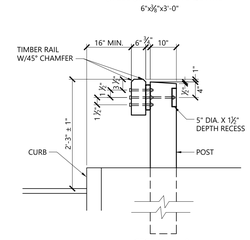
STEEL SPLICE PLATE DETAIL
6"x⅜"x3'-0"



POST CONNECTION DETAIL - TOP VIEW



POST CONNECTION DETAIL - ELEVATION



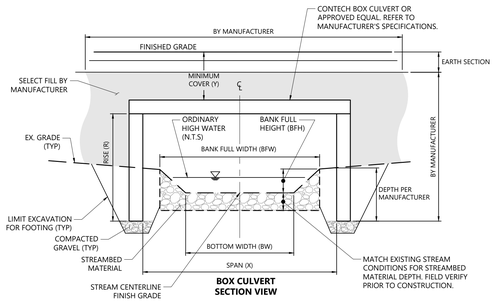
SECTION A-A

NOTES

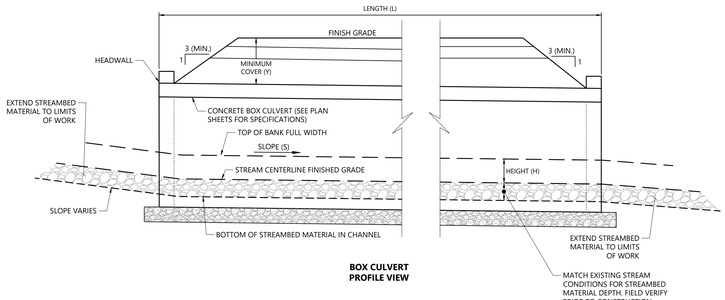
1. TIMBER RAILS AND POSTS SHALL BE PLANED ON THE FACE AND TOP AND THEN PRESSURE TREATED.
2. STEEL RAILS, SPLICE PLATES, BOLTS, SCREWS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. AT END POSTS, PROVIDE FULL COVERAGE OF POST FACE WITH TIMBER RAIL AND SPLICE PLATE.

Steel-Backed Wood Guardrail — 1/16

N.T.S. Source: VHB LD_452



BOX CULVERT SECTION VIEW



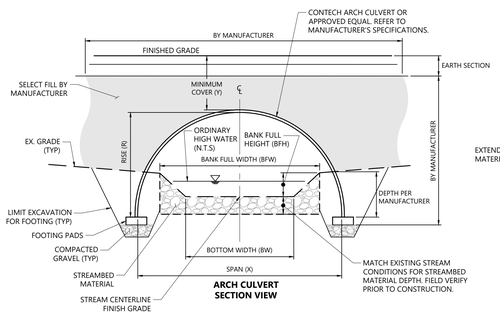
BOX CULVERT PROFILE VIEW

NOTES

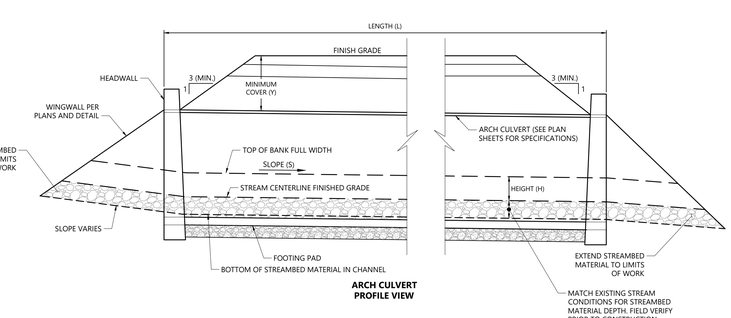
1. CULVERT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. BOX CULVERT DIMENSIONS (WIDTH x HEIGHT) NOTED ON PLANS ARE FOR CLEAR OPENING AND DO NOT INCLUDE BURIED (SUBGRADE) PORTIONS OF CULVERTS.
3. THE CULVERT SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS PROVIDED BY THE MANUFACTURER AND PER THE MANUFACTURER'S RECOMMENDATIONS.
4. FOR CULVERT NOMINAL DIMENSIONS, REFER TO PLAN SHEETS

Typical Stream Crossing (Box Culvert)

N.T.S. Source: VHB/CONTECH



ARCH CULVERT SECTION VIEW



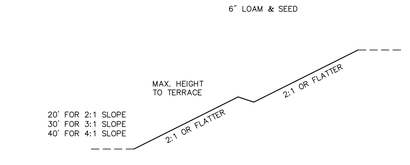
ARCH CULVERT PROFILE VIEW

NOTES

1. CULVERT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. CULVERT DESIGN SHALL BE HS-20 LOADING OR GREATER.
3. CULVERT HEADWALLS SHALL INCLUDE WING-WALLS AS MAY BE REQUIRED AND/OR AS INDICATED ON SITE PLANS.
4. FOR CULVERT NOMINAL DIMENSIONS, REFER TO PLAN SHEETS

Typical Stream Crossing (Arch Culvert)

N.T.S. Source: VHB/CONTECH

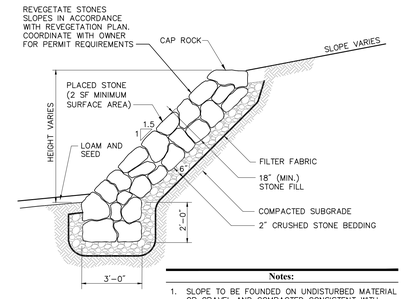


Notes:

1. SEE EROSION CONTROL BLANKET DETAIL FOR SLOPES STEEPER THAN 3 HORIZONTAL: 1 VERTICAL
2. LONGITUDINAL BENCH GRADE ALONG TERRACE TO BE 2% TO 3%, AND MAXIMUM FLOW LENGTH ALONG BENCH SHALL NOT EXCEED 800 FT.
3. VEGETATED SLOPES MAY BE USED IN PLACE OF STONE SLOPES WHERE FLATTER SLOPES WOULD NOT SIGNIFICANTLY ALTER LIMITS OF CLEARING, AND WHERE APPROVED BY ENGINEER.

Vegetated Slopes (2:1 or Flatter) — EV-10

N.T.S. Source: VHB



Notes:

1. SLOPE TO BE FOUNDED ON UNDISTURBED MATERIAL OR GRAVEL AND COMPACTED CONSISTENT WITH GEOTECHNICAL ENGINEERS RECOMMENDATIONS.
2. REQUIRED FOR ALL SLOPES STEEPER THAN 2:1(H:V)
3. SLOPES MAY BE ADJUSTED WHERE APPROVED BY GEOTECHNICAL ENGINEER.

Placed Stone Slope — EV-11

N.T.S. Source: VHB LD_760

STREAMBED MATERIAL FOR CHANNEL FORMATION AND OUTLET PROTECTION

THE BOULDER-COBBLE-GRAVEL-SAND MATERIAL SPECIFIED BELOW MUST BE APPROVED BY THE ENGINEER AT THE CONTRACTOR'S PROPOSED SOURCE PRIOR TO BEING PLACED IN THE STREAM CHANNEL.

Cumulative Percent of particles finer than indicated particle size	PARTICLE SIZE (inches)	PARTICLE TYPE
D10	< 0.04	sand
D16	1.0-2.0	gravel
D35	3.0-4.0	cobble
D50	8.0-10.0	cobble
D84	14.0-16.0	boulder

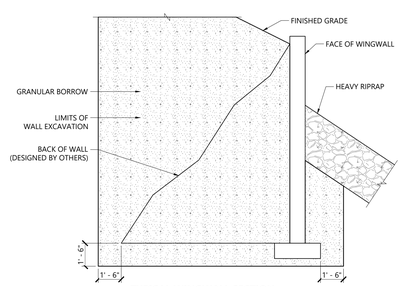
DESCRIPTION	SIZE	BUCKETS	PERCENT
ROCK/BOULDER	WELL GRADED 12-16"	0.5	7 - 12%
ROCK/COBBLE	WELL GRADED 8 - 12"	2	35 - 40%
BANK RUN GRAVEL	0.08 - 2.5"	2	35 - 40%
COURSE SAND	0.04 - 0.08" (1 - 2 MM)	0.75	12 - 17%

NOTES

1. ALL IMPORTED BEDDING MATERIAL SHALL CONSIST OF FIELD STONE OR NATURAL RIVER ROCK SIMILAR IN COLOR AND APPEARANCE TO IN-SITU MATERIALS.
2. CRUSHED STONE SHALL NOT BE PERMITTED.
3. BANK RUN GRAVEL MAY INCLUDE UP TO 5% CLAY, SILT, AND/OR SAND, AND UP TO 25% COBBLE AND SHALL HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
4. SAND SHALL BE WELL MIXED AND PREDOMINANTLY 1.0 TO 2.0 MILLIMETERS IN SIZE AND HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
5. THE GRADATION OF IMPORTED MATERIALS SHALL FALL WITHIN THE ENVELOPE AS INDICATED IN THE TABLE ABOVE.
6. COBBLE-GRAVEL VOID RATIO IS ESTIMATED AT 20%. THEREFORE, 20% BY VOLUME OF CL MATERIAL SHALL BE ADDED TO THE COBBLE-GRAVEL-SAND MATERIAL PRIOR TO PLACEMENT IN THE DESIGNATED AREAS. SEE CONSTRUCTION SPECIFICATIONS FOR DETAILS RELATIVE TO MIXING, PLACING, AND COMPACTING STREAMBED MATERIAL.

Streambed Material

N.T.S. Source: VHB



TYPICAL WINGWALL SECTION

NOTES

1. THE CONTRACTOR SHALL PROVIDE PRECAST CONCRETE WINGWALLS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 534. THE WALLS SHALL BE DESIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. COST OF WINGWALLS INCLUDED IN ITEM 534.71.

2. THE PRECAST UNITS SHALL BE ONE OF THE FOLLOWING, OR APPROVED EQUAL:

"T-WALL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF NEEL COMPANY.

"DOUBLEWAL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF DOUBLEWAL CORP., PLAIN, CONNECTICUT.

3. THE MAXIMUM FACTORED BEARING RESISTANCE FOR THE WINGWALLS IS 5 KSF FOR THE SERVICE CONDITION. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR FACTORED BEARING RESISTANCE FOR THE STRENGTH CONDITION BASED ON STEM LENGTH RANGES.

4. ELEVATION AT BOTTOM OF WALLS MAY BE LOWERED FOR CONSTRUCTABILITY AT NO ADDITIONAL COST TO THE DEPARTMENT.

Typical Wingwall

N.T.S. Source:

vhb.com
500 Southborough Drive
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Sugarloaf Mtn Corp West Mountain Expansion

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Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for: Review — Date: April 29, 2022

Not For Construction

Drawing Title: Site Details

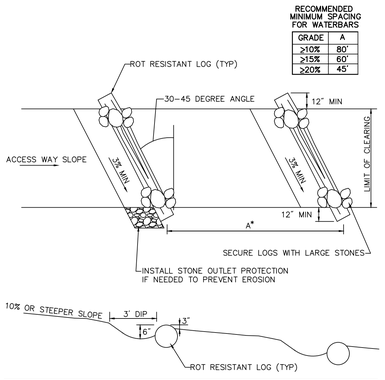
Drawing Number: C-1.02

Sheet 58 of 63

Project Number: 55310.01

STATE OF MAINE PETER B. SMIAR No. 16994 LICENSED PROFESSIONAL ENGINEER

Saved Wednesday, April 27, 2022 2:35:47 PM NDSMITH Plotted Friday, April 29, 2022 4:30:50 PM Zelda Dively

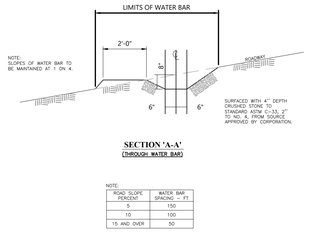


Notes:

1. WATERBARS SHOULD BE INSTALLED IN SECTIONS WITH SLOPES GREATER THAN OR EQUAL TO 10%.
2. WATERBARS SHALL BE CONSTRUCTED WITH 10" DIAMETER MINIMUM PEELED LOGS, HELD IN PLACE WITH LARGE STONES. APPROPRIATE SPECIES INCLUDE SPRUCE, HEMLOCK, BEECH, AND OAK.
3. CONTRACTOR TO OBSERVE THE CLEARINGS DURING A RAINSTORM TO DETERMINE IF ADDITIONAL WATERBARS OR ADJUSTMENTS TO WATERBARS ARE NEEDED.
4. WATERBAR DESIGN AND SPACING PROVIDED FOR GUIDANCE TO CONTROL EROSION ALONG CROSS-COUNTRY CLEARINGS. THE CONTRACTOR SHALL DETERMINE IF OTHER APPROPRIATE MEASURES ARE REQUIRED TO CONTROL RUNOFF AND EROSION IN CLEARING AREAS.
5. FOR WIDER LIMITS OF CLEARING MULTIPLE LOG LENGTHS MAY BE REQUIRED. ANCHOR ALL LOG ENDS WITH LARGE STONES AS SHOWN.

Waterbars - For Cross-Country Utility Clearings ER-03

N.T.S. Source: VHB



SECTION 'A-A'
(THROUGH WATER BAR)

NOTE:

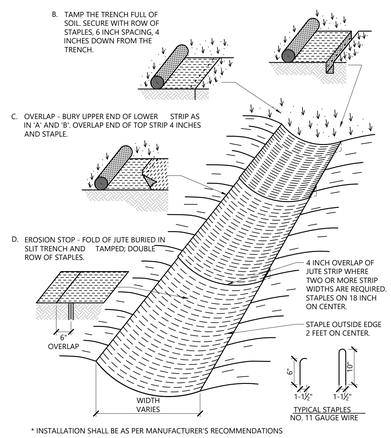
ROAD SLOPE PERCENT	WATER BAR SPACING — FT
5	150
10	100
15 AND OVER	50

Notes:

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. STRIP EXISTING SOD FROM BASE OF DIVERSION RIDGE PRIOR TO PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL.
5. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL CONDITIONS ARE NOT ADEQUATE.
7. INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
8. WATERBAR SLOPE SHALL NOT EXCEED 2% AS SHOWN.
9. FEDERAL, STATE, AND/OR LOCAL REQUIREMENTS MAY OVERRIDE THESE SPECIFICATIONS AND/OR THE USE OF THIS MEASURE.

Typical Water Bar Detail ER-04

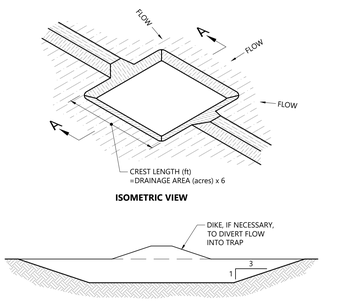
N.T.S. Source: VHB LD_



* INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS

Erosion Control Blanket Swale Installation 1/16

N.T.S. Source: VHB LD_681



ISOMETRIC VIEW

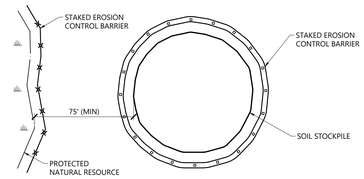
SECTION A-A

NOTES

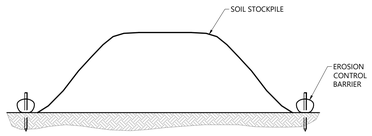
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE .
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. TEMPORARY SEDIMENT TRAPS SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES. ENSURE DOWN GRADIENT SLOPE IS WELL VEGETATED.

Temporary Sediment Trap

N.T.S. Source: VHB



PLAN VIEW



SECTION A-A

NOTES

1. STOCKPILES SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES.
2. STOCKPILES REMAINING UNSTABILIZED FOR A PERIOD OF MORE THAN 15 DAYS SHALL BE TEMPORARILY MULCHED.
3. SOIL STOCKPILES SHALL BE INSPECTED WEEKLY AT A MINIMUM AND BEFORE AND WITHIN 24 HOURS AFTER ALL STORM EVENTS (RAINFALL). IF REPAIR IS REQUIRED, REPAIR WORK SHALL BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

Soil Stockpile Sediment Control

N.T.S. Source: VHB

Stream Channel Sandbag Dike Detail EV-02

N.T.S. Source: VHB LD_

STREAM PUMP BYPASS NOTES:

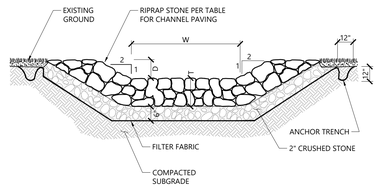
1. When excavation work is performed in a stream channel with an active stream flow, the stream flow shall be collected and pumped downstream from the work area in accordance with the Stream Culvert Installation Procedure Plan, notes, and details. A sandbag dike shall be installed in the stream channel on the uphill side of the work area. The flow collected above the sandbag dike shall be pumped to a splash pool on the downhill side of the work area. The splash pool shall be located at a location approved by the OSPC and/or the EPSC specialist such that the flow returning from the splash pool to the stream channel flow through rock places on fabric.
2. The Contractor shall have a pre-construction meeting with the EPSC Specialist and the OSPC to review the Erosion Prevention and Sediment Control measures and procedures to be employed for the work in the stream bed and the planned de-watering procedures. This meeting shall occur at least 2 days prior to the stream culvert installation.
3. Wherever practical, work within a stream bed shall be done during low flow conditions. The Contractor shall confirm the work schedule with the OPSC at least 48 hours prior to the work. New culvert, riprap at outfalls and channel lining (if required) shall be completed in one day. If work can not be completed in one day, the stream bypass shall be manned overnight.
4. Contractor shall have all equipment onsite the day before construction, including a backup pump with a capacity of 2 times the estimated flow. Sediment trap(s) for trench de-watering shall be construction the day before.
5. Install sandbag dikes at upstream and downstream ends of proposed culverts. Install pumps at upstream side of dikes. Pump capacity shall be 2 times estimated flow. Keep suction end of pump piping 12" off bottom of the stream, where possible.
6. Use a separate de-watering pump for pumping out sediment laden water in excavation for culvert. Pump all sediment laden water into sediment bag or trap. Frequently clean out sediment trap during construction.

Stream Culvert Installation Procedure EV-07

N.T.S. Source: VHB LD_

TABLE

CHANNEL DESIGNATION	W	T	D	STONE DIA. (D_{50})



Riprap Channel 1/16

N.T.S. Source: VHB LD_170

MULCH MATERIAL	QUALITY STANDARDS	PER 1,000 SQ-FT	PER ACRE	DEPTH OF APPLICATION
WOOD CHIPS OR SHAVINGS	AIR DRIED, FREE OF OBJECTIONABLE MATERIAL	500 – 900 LBS	10 – 20 TONS	2±0"?"
WOOD FIBER CELLULOSE (PARTIALLY DIGESTED WOOD FIBERS)	MADE FROM NATURAL WOOD USUALLY WITH GREEN DYE AND DISPERSING AGENT	50 LBS	2,000 LBS	N/A
GRAVEL, CRUSHED STONE OR SLAG	WASHED; SIZE 2B OR 3A – 1 1/2"	9 CY	405 CY	3"
HAY OR STRAW	AIR-DRIED; FREE OF UNDESIRABLE SEEDS AND COURSE MATERIALS	90 – 100 LBS, 2–3 BALES	2 TONS (100–120 BALES)	COVER ABOUT 90% SURFACE
COMPOST	UP TO 3" PIECES, MODERATELY TO HIGHLY STABLE	3 – 9 CY	3 – 9 CY	1–3"
Erosion Control Mix	WELL-GRADED MIXTURE OF PARTICLE SIZES. ORGANIC CONTENT BETWEEN 80–100% DRY WEIGHT. PARTICLE SIZE SHALL PASS 6" SCREEN (100%)	*Slopes 3(Hz.):1(Vert.) = 2 inch depth plus additional 1/2 inch depth per 20 ft. of slope up to 100 ft. **Slopes between 3(Hz.):1(Vert.) and 2(Hz.):1(Vert.) = 4 inch depth plus additional 1/2 inch per 20 ft. of slope up to 100 ft. ***Slopes steeper than 2(Hz.):1(Vert.) applicability to specific site and mulch depth to be reviewed and approved prior to use by OPSC or EPSC Specialist		

Notes:

1. APPLY TACKIFIER AS NEEDED TO MINIMIZE POTENTIAL FOR MULCH TO BLOW AWAY.
2. MULCH MUST NOT CONTAIN INVASIVE PLANT SPECIES. (SEEDS OR SEEDLINGS)
3. TACKIFIER MAY BE WATER, NETTING, OR SIMILAR.

Mulch Table EV-08

N.T.S. Source: VHB LD_

DIVERSION WITH EXCAVATION

DIVERSION WITH FILL

NOTES

1. RUNOFF SHALL BE DIVERTED FROM STORMWATER ROADSIDE BUFFERS THAT ARE CONSTRUCTED ON FILL OR RESHAPED SLOPES UNTIL A DENSE SOD IS ESTABLISHED, OR THOSE AREAS MUST BE PROTECTED BY A 3" LAYER OF EROSION CONTROL MIX OR OTHER WOODWASTE MATERIAL APPROVED BY MAINEDEP BEFORE STORMWATER IS DIRECTED TO IT.
2. ALL DIVERSION DIKES AND BERMS SHOULD BE COMPACTED AND STABILIZED WITH MATERIAL THAT IS APPROPRIATE FOR THE SLOPE AND EXPECTED RUNOFF, SUCH AS EROSION CONTROL BLANKETS, GRAVEL, OR RIPRAP.

Runoff Diversion

N.T.S. Source: Maine DEP Erosion and Sediment Control BMP Manual

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

INSTALLATION

1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.
3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT SURFACE WATERS.
4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS.
5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "RE-VEGETATION" MEASURES FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.
6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "RE-VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING.
7. GRADE DEVELOPMENT TO DRAIN TO RAIN GARDEN. ENSURE AREAS UPHILL OF THE DEVELOPMENT ARE DIVERTED AWAY FROM THE RAIN GARDEN.

MAINTENANCE

ALL MEASURES WILL BE INSPECTED WEEKLY AND BEFORE AND AFTER EVERY SIGNIFICANT STORM EVENT DURING CONSTRUCTION.

EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR VEGETATION GROWTH. FIX THESE PROBLEMS AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A RAIN GARDEN OR DITCH.

NOTE: PLEASE REFERENCE THE WRITTEN EROSION AND SEDIMENTATION CONTROL PLAN FOR ADDITIONAL GUIDANCE.

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Sugarloaf Mtn Corp West Mountain Expansion

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No.	Revision	Date	Appvd.

Designed by RWN | Checked by PS

Issued for: Review

Date: April 29, 2022

Not For Construction

Drawing Title: Erosion Prevention and Sediment Control Details

Drawing Number: C-1.05

Sheet 61 of 63

Project Number: 55310.01

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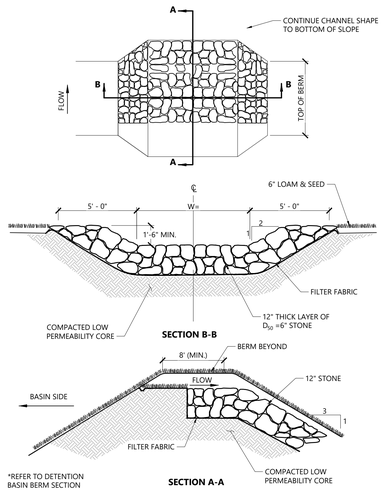
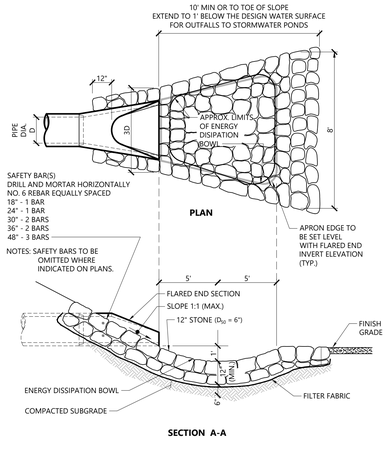


Overflow Stone Spillway

1/16

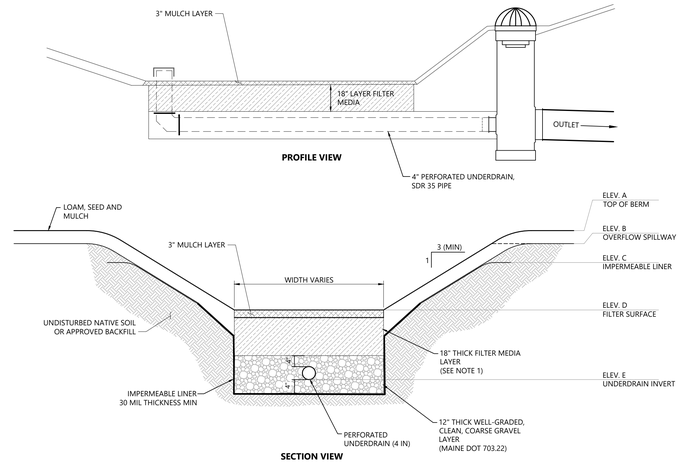
N.T.S. Source: VHB LD_161



Flared End Section (FES) with Stone Protection

1/16

N.T.S. Source: VHB LD_134



Vegetated Soil Filter (VSF) Detail

2/17

N.T.S. Source: VHB

NOTES

1. VEGETATED SOIL FILTER REQUIREMENTS PER MAINE DEP CHAPTER 500 AND MAINE STORMWATER MANAGEMENT DESIGN MANUAL VOLUME III, LATEST EDITIONS, MINIMUM REQUIREMENTS PER THE DEVELOPMENT:
   - DRAIN TIME = 24-48 HOURS, ASSUMES RATE OF 3 INCHES/HOUR.
2. FILTER MEDIA SHALL CONSIST (BY VOLUME) OF:
   - 50% SAND (ASTM C-33 CONCRETE SAND),
   - 20% SANDY LOAM TO FINE SANDY LOAM CONFORMING TO THE FOLLOWING GRADATION:

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
NO. 4	75-95
NO. 10	60-90
NO. 40	35-85
NO. 200	20-70
200 (CLAY SIZE)	< 2.0

   - 30% MATURE COMPOSTED WOODY FIBERS AND FINE SHREDDED BARK MULCH, SUPERHUMUS OR EQUIVALENT.
   - RESULTING MIXTURE SHALL HAVE 8% TO 12% PASSING THE NO. 200 SIEVE AND A CLAY CONTENT OF LESS THAN 2%.
   - FILTER MEDIA SHALL BE FIELD TESTED TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS AND HAVE SUFFICIENT FINES TO ENSURE FILTRATION OF FINE PARTICLES. GRADATION SHALL BE ADJUSTED, IF REQUIRED, TO MEET THE REQUIRED DRAW DOWN TIME. ADJUSTED GRADATIONS AND DRAINAGE TIME SHALL BE SUBMITTED TO DESIGN ENGINEER FOR REVIEW AND APPROVAL.
3. SURFACE AND SIDE SLOPES OF FILTER SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX AND MULCHED.
4. PERFORATED UNDERDRAIN PIPE SHALL BE LAID AS SHOWN IN PLAN VIEW, NO GREATER THAN 15' ON CENTER, TO DRAIN THE ENTIRE FILTER AREA.

VEGETATED SOIL FILTER ELEVATION TABLE

VSF #	A	B	C	D	E
P4	1808.00	1805.80	1805.80	1802.00	1799.33
P5	1838.00	1837.00	1837.00	1834.00	1831.33
P6	1828.00	1827.80	1827.80	1826.00	1823.33
P9	1950.00	1945.80	1945.80	1944.00	1941.33
P12	1474.00	1473.00	1473.00	1469.00	1466.33
P15	2090.00	2088.30	2088.30	2086.00	2083.33
P16	2125.00	2124.00	2124.00	2430.00	2119.33

NOTES

1. LOW PERMEABILITY CORE MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT.
2. WHERE PIPES PENETRATE THE LOW PERMEABILITY CORE, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY CORE MATERIAL.
3. THE BERM SECTION IS SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Detention Basin Berm Section

1/16

N.T.S. Source: VHB LD_160

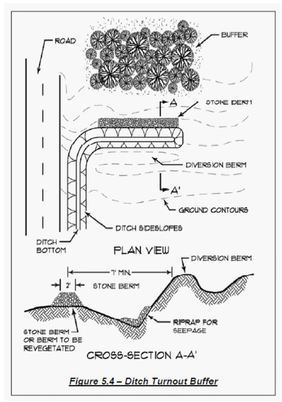


Figure 5.4 – Ditch Turnout Buffer

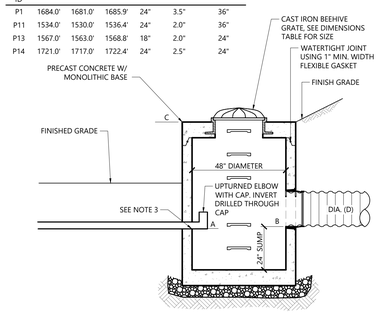
- *Stone Berm Specifications*: The stone berm to which the ditch turn-out delivers the runoff must be at least 20 feet in length and must be constructed along the contour. It must be at least one- foot high and two feet across the top with 2:1 side slopes.
- *Stone Size*: The stone must be coarse enough that it will not clog with sediment. Stone for stone bermed level lip spreaders must consist of sound durable rock that will not disintegrate by exposure to water or weather. Fieldstone, rough quarried stone, blasted ledge rock or tailings may be used. The rock must be well graded with a median size of approximately 3 inches and a maximum size of 6 inches. See Table 5.4 above.

Ditch Turnout Buffer

N.T.S. Source: MDEP

DIMENSIONS TABLE

WET POND ID	A	B	C	D	ORIFICE "A" DIAMETER	BEEHIVE GRATE SIZE
P1	1684.0'	1681.0'	1685.9'	24"	3.5"	36"
P11	1534.0'	1530.0'	1536.4'	24"	2.0"	36"
P13	1567.0'	1563.0'	1568.8'	18"	2.0"	24"
P14	1721.0'	1717.0'	1722.4'	24"	2.5"	24"



NOTES:

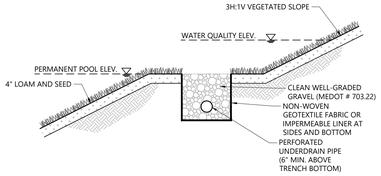
1. ALUMINUM "DROP-FRONT" MANHOLE STEPS, CAST IN PLACE, SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER
3. MANHOLE OPENING SHALL BE SET IN STRUCTURE COVER AS ALIGNED WITH LADDER ACCESS.

Wet Pond Outlet Control Structure

1/16

N.T.S. Source: VHB LD_171

MEDOT SPECIFICATIONS FOR TYPE B UNDERDRAINS (MEDOT # 703.22)	
SIEVE SIZE	% BY WEIGHT
1"	90-100
½"	75-100
NO. 4	50-100
NO. 20	15-80
NO. 50	0-15
NO. 200	0-5



Wet Pond Gravel Bench

N.T.S. Source: VHB

vhb.com

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN | Checked by PS

Issued for: Review

Date: April 29, 2022

Not For Construction

Drawing Title: Stormwater Details

STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED PROFESSIONAL ENGINEER

Drawing Number: C-1.06

Sheet 62 of 63

Project Number: 55310.01

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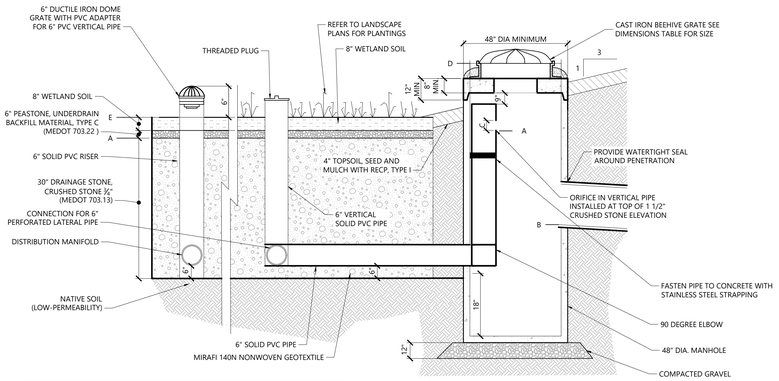


GRAVEL WETLAND ELEVATION TABLE

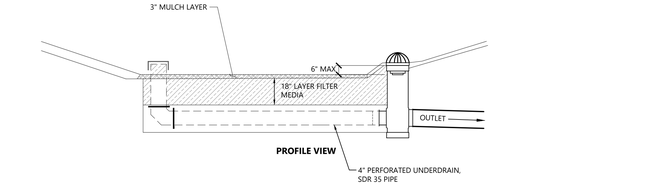
GW #	A	B	C	D	E	Beehive Grate Size
P2	1746.66	1746.00	1" Ø	1749.00	1747.00	24" Ø
P3	1750.66	1750.00	1" Ø	1754.60	1752.50	24" Ø
P7	1878.66	1878.00	1" Ø	1882.00	1879.00	24" Ø
P8	1932.66	1932.00	1" Ø	1935.50	1933.00	24" Ø
P10	1977.66	1977.00	1" Ø	1983.00	1978.00	30" Ø
P17	1874.66	1874.00	1" Ø	1877.70	1875.00	24" Ø

GRAVEL WETLAND TYPICAL

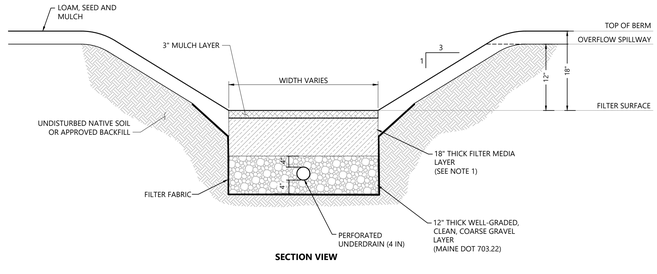
Gravel Wetland (Single Bay)

10/21

N.T.S. Source: VHB LD_VT



PROFILE VIEW



SECTION VIEW

NOTES

1. RAINGARDEN REQUIREMENTS PER MAINE DEP CHAPTER 500 AND MAINE STORMWATER MANAGEMENT DESIGN MANUAL VOLUME III, LATEST EDITIONS. MINIMUM REQUIREMENTS PER THE DEVELOPMENT:
   - DRAIN TIME = 24-48 HOURS, ASSUMES RATE OF 3 INCHES/HOUR.
2. FILTER MEDIA SHALL CONSIST (BY VOLUME) OF:
   - 70-80% COARSE LOAMY SAND, MEETING THE FOLLOWING GRADATION:

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
NO. 10	85-100
NO. 20	70-100
NO. 60	15-40
NO. 200	8-10

   - 20-30% MULCH, MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE NO. 200 SIEVE.
   - RESULTING MIXTURE SHALL HAVE NO MORE THAN 10% PASSING THE NO. 200 SIEVE.
   - FILTER MEDIA SHALL BE FIELD TESTED TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS AND HAVE SUFFICIENT FINES TO ENSURE FILTRATION OF FINE PARTICLES. GRADATION SHALL BE ADJUSTED, IF REQUIRED, TO MEET THE REQUIRED DRAW DOWN TIME. ADJUSTED GRADATIONS AND DRAINAGE TIME SHALL BE SUBMITTED TO DESIGN ENGINEER FOR REVIEW AND APPROVAL.
3. SURFACE AND SIDE SLOPES OF FILTER SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX AND MULCHED.
4. PERFORATED UNDERDRAIN PIPE SHALL BE LAID AS SHOWN IN PLAN VIEW, NO GREATER THAN 15' ON CENTER, TO DRAIN THE ENTIRE FILTER AREA.
5. MINIMUM FILTER BED SURFACE SHALL BE 7% OF THE CONTRIBUTING IMPERVIOUS AREA PLUS 3% OF THE CONTRIBUTING LANDSCAPING AREA.
6. MAXIMUM CONTRIBUTING AREA TO ANY SINGLE RAINGARDEN = 1 ACRE.
7. RUNOFF FROM OFFSITE DRAINAGE AREAS SHALL BE DIVERTED AROUND THE FILTER.
8. AVOID COMPACTING UNDERDRAIN BEDDING AND SOIL FILTER MEDIA DURING CONSTRUCTION. OVER-COMPACTED SOILS WILL NOT ALLOW PROPER WATER MIGRATION THROUGH THE SOIL SECTION; FILTER BEDS ARE INTENDED TO DRAIN DRY WITHIN 24 HOURS.
9. ALL DEVELOPED AREA ON THE LOT MUST DRAIN TO A RAIN GARDEN. PROVIDE ONE FILTER FOR THE LOT WITH THE TOTAL AREA NOTED, OR SPLIT THE AREA INTO MULTIPLE SMALLER GARDENS. SHAPES CAN VARY TO ACCOMMODATE NATIVE TERRAIN AND/OR LANDSCAPING.
10. EACH HOMEOWNER OF A LOT THAT REQUIRES A RAIN GARDEN MUST CHOOSE BETWEEN A GRASSED GARDEN OR A PLANTED GARDEN. SEE NOTES TO RIGHT.
11. CONSTRUCT FILTER SUCH THAT BERM IS NO MORE THAN 18" ABOVE THE MULCH SURFACE.
12. UNDERDRAIN GRANULAR MATERIAL SHALL BE WELL GRADED, CLEAN, COARSE GRAVEL MEETING THE MEDOT SPECIFICATION 703.22 UNDERDRAIN TYPE B FOR UNDERDRAIN BACKFILL

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
1"	90-100
½"	75-100
NO. 4	50-100
NO. 20	15-80
NO. 50	0-15
NO. 200	0-5

13. UNDERDRAINS SHALL MAINTAIN A MINIMUM OF 1% FOR POSITIVE DRAINAGE.

Rain Garden (RG) Detail

2/17

N.T.S. Source: VHB

RAIN GARDEN ELEVATION TABLE

Lot ID	Rain Garden ID	Max Impervious Surface (SF)	Max Landscaped Area - Lawn (SF)	Max Total Drainage Area (SF)	Min. Filter Surface Area (SF)	Orifice Diameter (in.)	WQv (CF)
R1	RG 1	10,000	20,700	30,700	1,321	1	1,523
R2	RG 2	10,000	20,700	30,700	1,321	1	1,523
R3	RG 3	7,000	10,000	17,000	790	1	917
R4	RG 4	7,000	10,000	17,000	790	1	917
R6	RG 6	7,000	10,000	17,000	790	1	917
R7	RG 7	7,000	10,000	17,000	790	1	917
R8	RG 8	7,000	10,000	17,000	790	1	917
R9	RG 9	7,000	10,000	17,000	790	1	917
R10	RG 10	7,000	10,000	17,000	790	1	917
R11	RG 11	7,000	10,000	17,000	790	1	917
R12	RG 12	10,000	20,700	30,700	1,321	1	1,523
R13	RG 13	10,000	20,700	30,700	1,321	1	1,523
R14	RG 14	13,000	24,000	37,000	1,630	1	1,883
R15	RG 15	13,000	24,000	37,000	1,630	1	1,883
R16	RG 16	13,000	24,000	37,000	1,630	1	1,883
R17	RG 17A	15,250	28,300	43,550	1,917	1	2,214
R17	RG 17B	15,250	28,300	43,550	1,917	1	2,214
R18	RG 18	13,000	24,000	37,000	1,630	1	1,883
R19	RG 19	13,000	24,000	37,000	1,630	1	1,883
R20	RG 20	13,000	24,000	37,000	1,630	1	1,883
R21	RG 21	10,000	20,700	30,700	1,321	1	1,523
R22	RG 22	10,000	20,700	30,700	1,321	1	1,523
R23	RG 23	10,000	20,700	30,700	1,321	1	1,523
R24	RG 24	13,000	24,000	37,000	1,630	1	1,883
R25	RG 25	7,000	10,000	17,000	790	1	917
R26	RG 26	7,000	10,000	17,000	790	1	917
R27	RG 27	7,000	10,000	17,000	790	1	917
R28	RG 28	7,000	10,000	17,000	790	1	917
R29	RG 29	7,000	10,000	17,000	790	1	917
R30	RG 30	7,000	10,000	17,000	790	1	917
R31	RG 31	10,000	20,700	30,700	1,321	1	1,523
R32	RG 32	10,000	20,700	30,700	1,321	1	1,523
R33	RG 33	7,000	10,000	17,000	790	1	917
R34	RG 34	7,000	10,000	17,000	790	1	917
R35	RG 35	7,000	10,000	17,000	790	1	917
R36	RG 36	7,000	10,000	17,000	790	1	917
R37	RG 37	7,000	10,000	17,000	790	1	917
R38	RG 38	10,000	20,700	30,700	1,321	1	1,523
R39	RG 39	10,000	20,700	30,700	1,321	1	1,523
R40	RG 40	10,000	20,700	30,700	1,321	1	1,523
R41	RG 41	7,000	10,000	17,000	790	1	917
R42	RG 42	10,000	20,700	30,700	1,321	1	1,523
R43	RG 43	10,000	20,700	30,700	1,321	1	1,523
R44	RG 44	10,000	20,700	30,700	1,321	1	1,523
R45	RG 45	10,000	20,700	30,700	1,321	1	1,523
R46	RG 46	10,000	20,700	30,700	1,321	1	1,523
R47	RG 47	10,000	20,700	30,700	1,321	1	1,523
R48	RG 48	10,000	20,700	30,700	1,321	1	1,523
R49	RG 49	10,000	20,700	30,700	1,321	1	1,523
R50	RG 50	10,000	20,700	30,700	1,321	1	1,523
R51	RG 51	7,000	10,000	17,000	790	1	917
R52	RG 52	7,000	10,000	17,000	790	1	917

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for: Review Date: April 29, 2022

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Drawing Title: Stormwater Details

Drawing Number: C-1.07

Sheet 63 of 63

Project Number: 55310.01

STATE OF MAINE PETER B. SMIAR No. 16994 LICENSED PROFESSIONAL ENGINEER

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SECTION 15. GROUNDWATER:

A. Narrative:

1. Location and Maps: No portion of the project site is within a Sand and Gravel Aquifer. A copy of the Sand and Gravel Aquifer Map is included as part of this Section. Also included are the Surficial Geology Map, and the Bedrock Geological Map with the project site shown on each.

2. Quantity: The proposed development of the West Mountain area of Sugarloaf consists of 236 units, resulting in approximately 770 bedrooms. The proposed project also includes a Skier Services Center, which will contain bathrooms. In all, the proposed project anticipates a daily water use of approximately 70,000 gallons per day, on its busiest days, such a school vacation week.

   Sugarloaf utilizes a Public Water Supply operated by the Sugarloaf Water Association. This water system, consisting of several drilled wells and storage tanks, has provided a letter stating their ability/capacity to supply this proposed project's potable water. See the Water Supply Section for more information on the current water supply system.

3. Potential Sources of Contamination: This proposed new project will utilize the Carrabassett Valley Sanitary District System to collect and treat wastewater from the project site. Potential contaminants from this system would be leaking manholes, or failures in the piping system, though both are unlikely, as this will all be new construction, and the District has made significant replacement and upgrade efforts in the existing system.

   This site does not anticipate the use of any hazardous materials in significant quantities. The new lift will utilize lubricants to maintain the lift. These will be stored under cover. There will be a diesel backup generator for the new lift. Fuel for this generator will also be stored under cover.

   An SPCC plan exists for the Ski Resort, included in this section.

4. Measures to Prevent Degradation: With the SPCC Plan, the applicant has addressed the measures to prevent groundwater degradation. Best Management Practices during construction of the project, will also help to maintain the quality of the Groundwater.

B. Groundwater Protection Plan: Sugarloaf Ski Resort already has in place a rigorous plan to protect groundwater as part of its operations. This proposed additional project will not add anything outside the parameters of their current plans.

C. Monitoring Plan: There is no monitoring proposed as part of this project. The project site is not located over or near a sand and gravel aquifer.

D. Monitoring Well Installation Report: N/A

SECTION 16. WATER SUPPLY

A. Water Supply Method:

5. Off-Site Utility Company or Public Agency:
The Sugarloaf Water Association (SWA) provides water to most of the Sugarloaf complex and is slated to provide water to this new project as well. The applicant has provided a letter from SWA, stating its ability and willingness to supply this project with potable water.

B. Subsurface Wastewater Disposal: N/A

C. Total Usage:

The total usage of water is based upon a rate of 90 gallons per day per bedroom, plus 5,000 gallons per day at the Skier Services Center. At full capacity, the anticipated daily use for water is 70,000 gallons per day, during peak usage. The usage breaks down as follows:

- 52 SFR Homes x 4 bed x 90 gpd = 17,720 gpd
- 100 condo units x 3 bed x 90 gpd = 27,000 gpd
- 72 Duplex Units x 3 bed x 90 gpd = 19,440 gpd
- Skier services = Appx 5,000 gpd

SECTION 17. WASTEWATER DISPOSAL

A. On-Site Disposal Systems: N/A

B. Nitrate-nitrogen impact assessment: N/A

C. Municipal Facility: The applicant intends to utilize the services of the Carrabassett Valley Sanitary District for the disposal of the wastewater generated on this new project. The applicant has received the enclosed letter from the District, stating its ability and willingness to collect and treat the wastewater from this new project site. Per the subsurface wastewater disposal code, the project is anticipated to generate approximately 70,000 gal per day of sewerage. See Section 16 for flow generation breakdown. The SWW code is often conservative as compared to monitoring data. It is anticipated that 70,000 gpd will be the flow (at full build out) during peak use times such as Holidays and school vacation weeks. During the off-season flow are anticipated to be significantly less.

D. This project contemplates the extension of a collection system of pipes and manholes and pump stations to collect and convey the wastewater to a connection point with the current sewer system controlled by the District. The Plans and specifications for this collection system are part of the application package submitted.

E. Wastewater Discharge Information: No wastewater is discharged into a waterbody directly from this project site.

F. Storage or Treatment Lagoons: This project contemplates no storage or treatment lagoons. The District does use these in its facility.

SECTION 18. SOLID WASTE:

This project is anticipated to generate stumps and grubbing and construction debris during the construction process. The project will also generate construction debris during the construction of the condominiums, cabins, and homes. The project will also generate household waste after construction is complete, and owners and renters are established in the residences.

A. Commercial Solid Waste Facility:

The Town of Carrabassett Valley hauls its solid waste to Waste Management's Crossroads Landfill facility, in Norridgewock, Maine. Sugarloaf currently contracts with Waste Management, who also brings their household waste to the Waste Management facility in Norridgewock. The volume of waste anticipated to be generated is 6 tons per week, during peak times of the ski season, with most of the units being occupied. This number is expected to drop dramatically during the off-season.

B. Off-Site Disposal of Construction Debris:

Contractors that will be building the condominiums and homes within this project site will be required to have dumpsters on their construction sites. The contractor typically subcontracts waste hauling with Waste Management out of Norridgewock, Maine who delivers the construction debris to their facility in Norridgewock for processing and landfilling.

The anticipated amount of Construction/Demolition Debris to be generated by this project is 70 to 90 tons of waste during the construction of the project. This is anticipated to be spread out over at least three to five years, and possibly longer, depending on market conditions.

C. On-Site Disposal of Woodwaste or Land Clearing Debris:

All harvested trees will be sold to a registered logger. Any stumps and grubbing debris will be ground and used for erosion control during construction.

D. Special or Hazardous Waste:

This project does not entail the generation of any significant quantities of special or hazardous wastes during construction.

Wetlands, Stream and Vernal Pool Survey Report

Sugarloaf Resort – West Mountain Expansion

Carrabassett Valley, Maine

PREPARED FOR

Boyne Resorts
15 South Ridge Road
PO Box 4500
Newry, ME 04261

PREPARED BY

500 Southborough Drive, Suite 105B

South Portland, ME 04106

May 2021

Signature: VHB, Inc.

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5	**Natural Resources Mapping**
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Wetlands, Streams and Vernal Pools Delineation Report – West Mountain Expansion Project

Introduction

On behalf of the Boyne Resorts (Boyne), Vanasse Hangen Brustlin, Inc. (VHB) conducted on-site wetland and waterbody delineations, and identification of potential vernal pools within a study area for a proposed expansion of the Sugarloaf Resort known as the West Mountain, in Carrabassett Valley, Maine. The purpose of this report is to document wetlands and water resources that fall under the federal jurisdiction of the U.S. Army Corps of Engineers (USACE) and the Clean Water Act (CWA), and under the state jurisdiction of the Maine Department of Environmental Protection (Maine DEP) and the Maine Natural Resources Protection Act (NRPA).

In addition to describing the identified wetland resource areas, this report describes the existing conditions within the study area, and the methodologies employed for identification of wetlands and water resources.

Description of the Study Area

The approximately 565-acre Study Area is the forested north flank of Sugarloaf Mountain south of West Mountain Road, west of Bucksaw Drive, east of and to the summit of the West Mountain Lift (approximate coordinates 45.056241, -70.323507). See Appendix 1 for a Site Location Map. The Study Area ranges from approximately 1,340-feet above-sea-level (asl) at West Mountain Road to approximately 2,900-feet asl at the top of the chairlift. The area is sloped to the north, more steeply at the upper elevations than lower on the slope. Waters from on-site streams drain into the South Branch of the Carrabassett River (HUC 12: 010300030401) which, at its closest approach is approximately 0.2-miles from the northwest corner of the Study Area. The USGS National Hydrography Dataset (NHD) does not show any mapped streams within this Study Area. Likewise, the National Wetlands Inventory (NWI) has not mapped any wetlands within the Study Area.

Land-use history within the Study Area is characterized by logging activities with an extensive network of logging roads and skid trails present. Much of the forestland appears to have been cut multiple times, including within the last 10 years. The Study Area is surrounded by and includes ski infrastructure (trails, lifts, snowmaking equipment) particularly to the southeast, where the main mountain operations are concentrated.

Condominium and residential developments are present east and west of the Study area and a golf course sits to the north between the Study Area and the South Branch of the Carrabassett River. Southwest of the West Mountain Lift summit is the least developed portion of the Study Area with some recent logging at lower, hardwood dominated slopes and mature softwood forest at the highest elevations.

The upper slopes of the Study Area are characterized by sub-alpine fir forest with balsam fir (*Abies balsamic*), mountain ash (*Sorbus americana*), black spruce (*Picea mariana*), and heart-leaved paper birch (*Betula cordifolia*). Mid-elevation slopes are logging-disturbed mixed hardwood and softwood forest, with abundant yellow birch (*Betula alleghaniensis*), balsam fir, red spruce (*Picea rubens*), and striped maple (*Acer pennsylvanica*), understories of hobblebush (*Viburnum lantanoides)*, mountain maple (*Acer spicatum*), witch-hazel (*Hamamelis virginiana*), with scattered white pine (*Pinus strobus)* and northern white cedar (*Thuja occidentalis*), and hemlock (*Tsuga canadensis*). Lower elevation forests consisted of northern hardwood forest with sugar maple (*Acer saccharum*), American beech (*Fagus americana*), paper birch (*Betula papyrifera*), and yellow birch (*Betula alleghaniensis*) dominating. Common plants observed in wetlands include red maple (*Acer rubrum*), balsam fir, yellow birch, jewelweed (*Impatiens capensis*), nodding sedge (*Carex gynandra*), sensitive fern (*Onoclea sensibilis*), northeastern mannagrass (*Glyceria melicaria*), steeplebush (*Spiraea tomentosa*), broad-leaved cattail (*Typha latifolia*), bulrushes (*Scirpus spp.*), and willows (*Salix spp.*). Legacy logging roads are prominent within the Study Area, often influencing hydrology and vegetation via soil compaction and erosional rills.

The Study Area is underlain by the Silurian Rangeley Formation, "B" member, a highly metamorphosized sedimentary bedrock. Surficial geology is mostly extensive bedrock outcrops with only a thin cover of soil and vegetation; surficial deposits are essentially absent (USGS, 2021). Soils on site are very stony with much of the Study Area being characterized by boulders under thin soils. Dominant soils underlying the Study area include Marlow-Peru association (15-35% slopes), very stony; Peru-Marlow association (3-15% slopes), very stony; Peru fine sandy loam (8-15% slopes), very stony; and Lyman-Tunbridge-Abram complex (15-35% slopes) (USDA/NRCS Websoil Survey). The steep, rocky soils create emerging/losing streams and wetland features due to the subterranean porosity of the bouldery mountain slope. A Natural Resources Conservation Service (NRCS) soils map is included as Appendix 2.

Methodology

Wetlands

VHB ecologists conducted initial wetland delineation field work within the survey area during the spring of 2020 and then revisited the site in July and October of this same year. VHB delineated the boundary of wetlands in accordance with the *Army Corps of Engineers 1987 Wetland Delineation Manual* (1987 Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (*Version 2.0*) (Regional Supplement). All wetland delineations were conducted using Routine Determination Methods, which require that a wetland must contain a dominance of hydrophytic vegetation, hydric soils, and evidence of hydrology to be considered a wetland. Wetland boundaries were

located and demarcated with flagging and flag locations were recorded in the field using a Trimble® GPS unit capable of sub-meter accuracy, post-processed, and transferred and incorporated onto project mapping.

VHB completed one wetland and one upland Regional Supplement data form along the boundary of each identified wetland system to document the boundary. Additional field notes were also taken to record the classification of each wetland in accordance with the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin Classification), general site characteristics, unique qualities observed during the site assessment, and other considerations relevant to support the investigation findings. Wetlands functions and values were assessed with reference to the USACE New England District's *The Highway Methodology Workbook Supplement: Wetland Functions and Values - A Descriptive Approach*. VHB took representative photographs of each wetland, drew labeled field sketches of the wetland boundary on an aerial photograph-based map, and recorded notes on the flagging sequence for each wetland.

Wetlands of Special Significance (WOSS)

Following delineations, VHB evaluated if wetlands met the Wetlands of Special Significance (WOSS) criteria. Wetlands of Special Significance are defined in NRPA Chapter 310: Wetlands and Waterbodies Protection Section 4. According to Chapter 310, WOSS include all coastal wetlands and great ponds, and freshwater wetlands that exhibit one or more of the following characteristics:

> "(1) Critically imperiled or imperiled community. The freshwater wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the Natural Areas Program.
>
> (2) Significant wildlife habitat. The freshwater wetland contains significant wildlife habitat as defined by 38 M.R.S.A. § 480-B (10).
>
> (3) Location near coastal wetland. The freshwater wetland area is located within 250 feet of a coastal wetland.
>
> (4) Location near GPA great pond. The freshwater wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
>
> (5) Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial ponds or impoundment.
>
> (6) Wetlands subject to flooding. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency or other site-specific information.
>
> (7) Peatlands. The freshwater wetland is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance.

(8) River, stream or brook. The freshwater wetland area is located within 25 feet of a river, stream or brook."

Waterbodies

VHB also evaluated the presence or absence of waterbodies within the project area. Streams were evaluated in accordance with the State of Maine Natural Resources Protection Act criteria and definitions. A river, stream or brook is defined by the NRPA in Title 38 M.R.S.A. §§ 480-A, as a channel between defined banks. The channel is created by surface water and has two or more of the following five characteristics:

- The channel is depicted as a solid or broken line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map, or 15-minute series topographic map if the 7.5 minutes series is unavailable;
- The channel contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years;
- The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water;
- The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present within the stream bed;
- The channel contains aquatic vegetation and is essentially devoid of upland vegetation.

The Army Corps Maine General Permit does not include a definition of river, stream or brook. However, the ordinary highwater mark (OHWM or OHW) of watercourses was identified following USACE's Regulatory Guidance Letter No. 05-05 Ordinary High Water Mark Identification (2005).

Vernal Pools

A full vernal pool survey was conducted by VHB scientists during the spring of 2020 to confirm and identify vernal pool features within the survey area, including those regulated by the USACE and the Maine DEP. The Maine DEP defines "vernal pools, also referred to as seasonal forested pools, as natural temporary to semi-permanent bodies of water that occur in shallow depressions that typically fill with water during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and have no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition."

DEP further differentiates vernal pools as 'significant' (regulated under NRPA) and 'non-significant' (not regulated under NRPA). Significant vernal pool habitat consists of a vernal pool depression and that portion of the critical terrestrial habitat within 250 feet of the spring or fall high water mark of the depression. Whether a vernal pool is a significant vernal pool is determined by the number and type of

pool-breeding amphibian egg masses in a pool, the presence of fairy shrimp, or use by certain rare, threatened, or endangered species that commonly requires a vernal pool to complete a critical portion of its life-history as specified in NRPA Chapter 335 Significant Wildlife Habitat Rules Section 9(B). Table 1 identifies the Chapter 335 abundance criteria required for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma* ma*culatum*), blue-spotted salamanders (*Ambystoma laterale*), fairy shrimp (*Eubranchipus* sp.), and certain state-listed species to define an area as a significant vernal pool.

Table 1: NRPA Chapter 335 Significant Wildlife Habitat Rules Abundance Criteria for Significant Vernal Pools

Species	Abundance Criteria
Fairy shrimp	Presence in any life stage.
Blue spotted salamanders	Presence of 10 or more egg masses.
Spotted salamanders	Presence of 20 or more egg masses.
Wood frogs	Presence of 40 or more egg masses.
Certain rare, threatened, or endangered species[1]	Presence

[1] Per NRPA Chapter 335 Section 9(B), examples of vernal pool dependent state-listed endangered or threatened species include, but are not limited to, Blanding's turtle (*Emydoidea blandingii*), spotted turtle (*Clemmys guttata*), and ringed boghaunter dragonflies (*Williamsonia lintneri*). The rare species that must be considered are limited to: wood turtle (*Glyptemys insculpta*), ribbon snake (*Thamnophis sauritus*), swamp darner dragonflies (*Epiaeschna heros*), and comet darner dragonflies (Anax longipes).

The USACE Maine General Permit applies a somewhat different definition of 'vernal pool' and states "a vernal pool, also referred to as a seasonal forest pool, is a temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus spp.*), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition. For the purposes of this GP, the presence of any of the following species in any life stage in any abundance level/quantity would designate the waterbody as a vernal pool: fairy shrimp, blue spotted salamanders, spotted salamanders or wood frogs. However, they should preclude sustainable populations of predatory fish.

General Condition 20. Vernal Pools of the Department of the Army General Permits for the State of Maine states the following:

> a. A Preconstruction Notification (PCN) is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.

b. GC 20(a) above does not apply to projects that are within a municipality that meets the provisions of a Corps-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

At its discretion, the Corps may determine during permit review that a waterbody should not be regulated as a vernal pool based on available evidence. The USACE's Maine General Permit specifies Vernal Pool Management Areas as: the Vernal Pool Depression (includes the vernal pool depression up to the spring or fall high water mark, and includes any vegetation growing within the depression), the Vernal Pool Envelope (area within 100 feet of the Vernal Pool Depression's edge) and the Critical Terrestrial Habitat (area within 100-750 feet of the Vernal Pool Depression's edge).

The USACE does not differentiate vernal pools as 'significant' or 'non-significant' based on the abundance of biological indicators. As stated in the USACE definition, the presence of any of the specified indicator species in any abundance qualifies a feature as a regulated vernal pool. An additional important distinction between the USACE and the Maine DEP definition of vernal pools is that under the Maine DEP rules, a vernal pool must be 'natural' in origin, where under the USACE rules a vernal pool may be natural or manmade.

VHB completed meander surveys throughout the entire study area to identify areas of seasonally ponded water, and other inundated areas such as slow flowing streams and waterbodies where vernal pool biological indicators may potentially occur. Ponded and inundated areas identified were thoroughly surveyed for evidence of vernal pool indicator species, including wood frogs, spotted salamanders, blue-spotted salamanders, and fairy shrimp including the presence of individuals, tadpoles/ larvae, egg masses, or spermatophores. Evidence of rare, threatened, or endangered species known to utilize vernal pool habitat was also documented by direct observation of individuals. The occurrence of biological vernal pool indicators was quantitatively tallied for each surveyed potential vernal pool.

If biological vernal pool indicators were present, additional information on the vernal pool location, habitat and geomorphic setting, hydrologic attributes, and evidence of anthropogenic alteration was recorded. This information was recorded on the Maine Department of Inland Fisheries and Wildlife (MDIF&W) Vernal Pool Assessment Form, which is the documentation methodology required by the Maine DEP and MDIF&W, and is also accepted by the USACE.

Study Results

Using the methodologies described above, VHB environmental scientists conducted wetland resource area delineations. The following subsections provide a description of each identified resource type.

Wetlands

In total, VHB delineated 103 wetlands, with the average size being 0.16-acres. Palustrine Emergent (PEM) and Palustrine Forested (PFO) were present within the Study Area. In general, wetlands within the Study Area are groundwater-driven, often occurring at the topography breaks where water flowing through underfoot boulders is forced to the surface and creates open canopy seeps with organic soils. Whether due to the hydrologic impacts of the logging roads, or the coincidental placement of the roads where topography is least steep, many of the legacy logging roads display wetland parameters.

For photographs of typical on-site wetland features, refer to the Representative Site Photographs in Appendix 3. A listing of each wetland surveyed, including key characteristics, is provided in Appendix 4 and natural resource mapping is provided in Appendix 5.

PFO Wetlands

Forested wetlands are characterized by woody vegetation that is at least six meters tall (Cowardin et al. 1979). VHB delineated 37 PFO wetlands within the Study Area which include a mix of needle-leaved evergreen and broad-leaved deciduous vegetation. Forested wetlands make approximately 11.3 acres (2%) of the Study Area. Common tree species included balsam fir, green ash (*Fraxinus pennsylvanica*), yellow birch and red maple. Herbaceous species common to forested wetlands include sensitive fern, spotted touch-me-not, nodding sedge and eastern rough sedge (*Carex scabrata*). Often forested wetlands have an open canopy towards the middle, with tree species dominating wetland edges and overhanging the wetland. PFO wetland hydrology is groundwater-driven and permanently saturated soils are common.

PEM Wetlands

Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et al. 1979). VHB delineated 66 emergent wetlands covering approximately 5.8 acres (1%) within the Study Area. Common species include sensitive fern, eastern rough sedge, nodding sedge, woolgrass (*Scirpus cyperinus*), green bulrush (*Scirpus atrovirens*), dwarf red blackberry *(Rubus pubescens*), interrupted fern (*Osmunda claytoniana*), broad-leaved cattail, bluejoint grass (*Calamagrostis canadensis*) and northeastern manna grass. Often PEMs occur in recently logged areas that were likely PFOs prior to harvesting. As such, delineated PEMs often have woody vegetation that was not tall or dominant enough to qualify as PFO or Palustrine Scrub-shrub. These species included willows, steeplebush, balsam fir, yellow birch and green ash, among others. Delineated PEM wetlands commonly have organic-matter rich soil, often enough to qualify as a Histosol. Groundwater discharge in the form of open-canopy seeps plays a large role in creating wetland areas on the sloped terrain.

WOSS

Of the 103 wetland areas delineated, portions of 38 wetlands meet the NRPA WOSS criteria based on being located within 25 feet of a delineated stream (see Criteria 8 above). No other WOSS criteria were met by any wetland within the Study Area. Those portions of these wetlands located within 25 feet of a stream are considered WOSS areas. WOSS areas are displayed on the Natural Resources Map (Appendix 5) with the associated 75-foot area adjacent to the Protected Natural Resource.

Waterbodies

VHB ecologists conducted stream delineation fieldwork within the Study Area between June and July 2020. During this effort, 34 streams were delineated within the Study Area, primarily based on those meeting NRPA definition criteria (b) and (c) as listed above. Of the 34 delineated streams, there are 7 perennial reaches and 27 intermittent reaches. These 34 streams are displayed on the Natural Resources Map with associated 75-foot buffer for Protected Natural Resources. The Study Area also contains several ephemeral channels, often associated with legacy logging roads, which, due to ephemeral flow regime and/or lack of a defined mineral channel, are not believed to be federal or state jurisdictional. These features were therefore not included on the Natural Resources Map.

As mentioned in the Site Description above, the Study Area is characterized by steep bouldery slopes that offer abundant opportunity for subterranean water movement. As shown in Appendix 5, there are a number of streams that appear as "segments" that emerge from springs or seeps between boulders and disappear underground downslope. Similarly, there are streams that have a perennial flow regime in upper reaches and an intermittent in lower reaches, a trend not common in landscapes with less subterranean water movement. Also of note at Sugarloaf is the tendency for streams to display signs of flashy spring flows following snowmelt, such as sediment and gravel deposits. These early-season high flows are likely augmented by snowmaking that places more water on the landscape than natural snow levels.

The average OHW width for delineated streams is approximately 3.5 feet and the average water depth is approximately 1.5 inches. For additional technical details pertaining to each delineated stream, refer to the Summary of Delineated Streams table in Appendix 4 and the mapping provided in Appendix 5.

Vernal Pools

VHB did not identify any significant vernal pools within the Study Area during the Spring 2020 survey, nor during the follow-up survey in July. During the 2020 vernal pool (VP) assessment, VHB ecologists documented 6 VPs within the Study Area but based on field observations. Observed VPs are small and associated with human-created depressions such as ditches and skidder ruts except for VP 2, which is in a potentially natural depression within a softwood swamp.

Based on the Maine DEP criteria listed above, none of the VPs were found to be significant. No VPs within the Study Area contained enough egg masses to qualify as significant. No fairy shrimp, state-listed threatened, endangered, or species of special concern were observed in any of the VPs. The Maine State VP Assessment Forms, site photographs and associated GIS shapefiles for all VPs were submitted to Maine Department of Inland Fisheries and Wildlife (MDIFW) on February 5, 2021. MDIFW provided a response letter on February 25,

2021 confirming the non-significant status of the six VPs because either: 1. the features do not meet the definition of a VP under the Significant wildlife habitat rules, 06-096 CMR 335(9) or 2. the VPs do not meet the biological standards for exceptional wildlife use of the significant wildlife habitat rules, 06-096 CMR 335(9)(B). Please see Appendix 6 for correspondence from the MDIFW regarding VPs. Therefore, activities within 250 feet of the pools are not regulated under NRPA unless there are other protected natural resources nearby such as streams or freshwater wetlands.

Summary

The information contained in this report was collected to provide detailed, on-site information regarding wetland, waterbody, and vernal pool resources falling under the jurisdiction of the USACE and the Maine DEP within the study area. VHB identified 103 wetland resource areas and 34 streams. These features are regulated by the USACE under the Clean Water Act and by the Maine DEP under the Natural Resources Protection Act.

Six vernal pools were identified. but were determined by the Maine DIFW to be non-significant.

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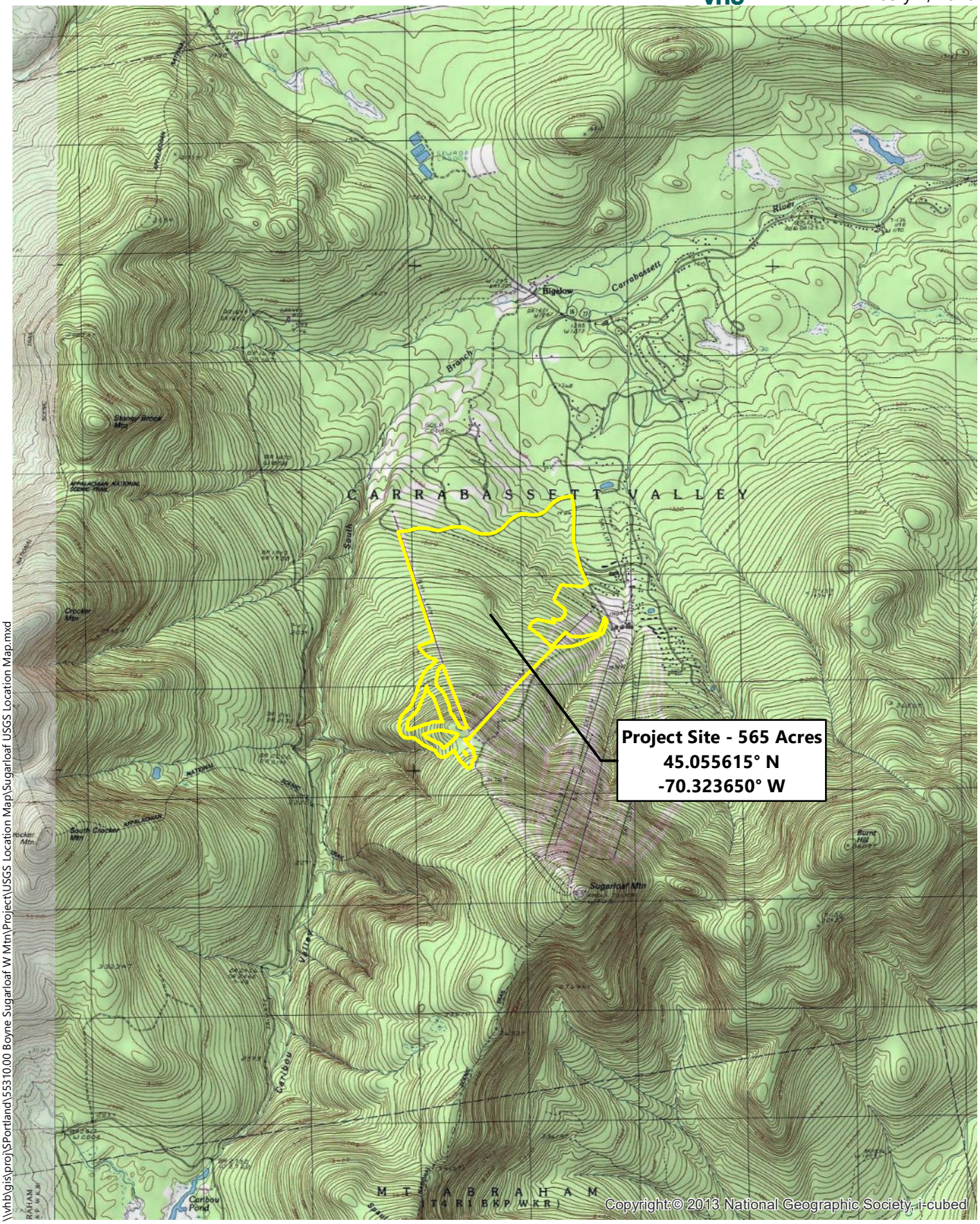
APPENDIX 1

USGS LOCUS MAP

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

July 7, 2020



\\vhb\gis\pro\SPortland\55310.00 Boyne Sugarloaf W Mtn\Project\USGS Location Map\Sugarloaf USGS Location Map.mxd

0 2,000 4,000 8,000 Feet

Project Area (VHB)

Sugarloaf West Mountain | **Carrabassett Valley, Maine**

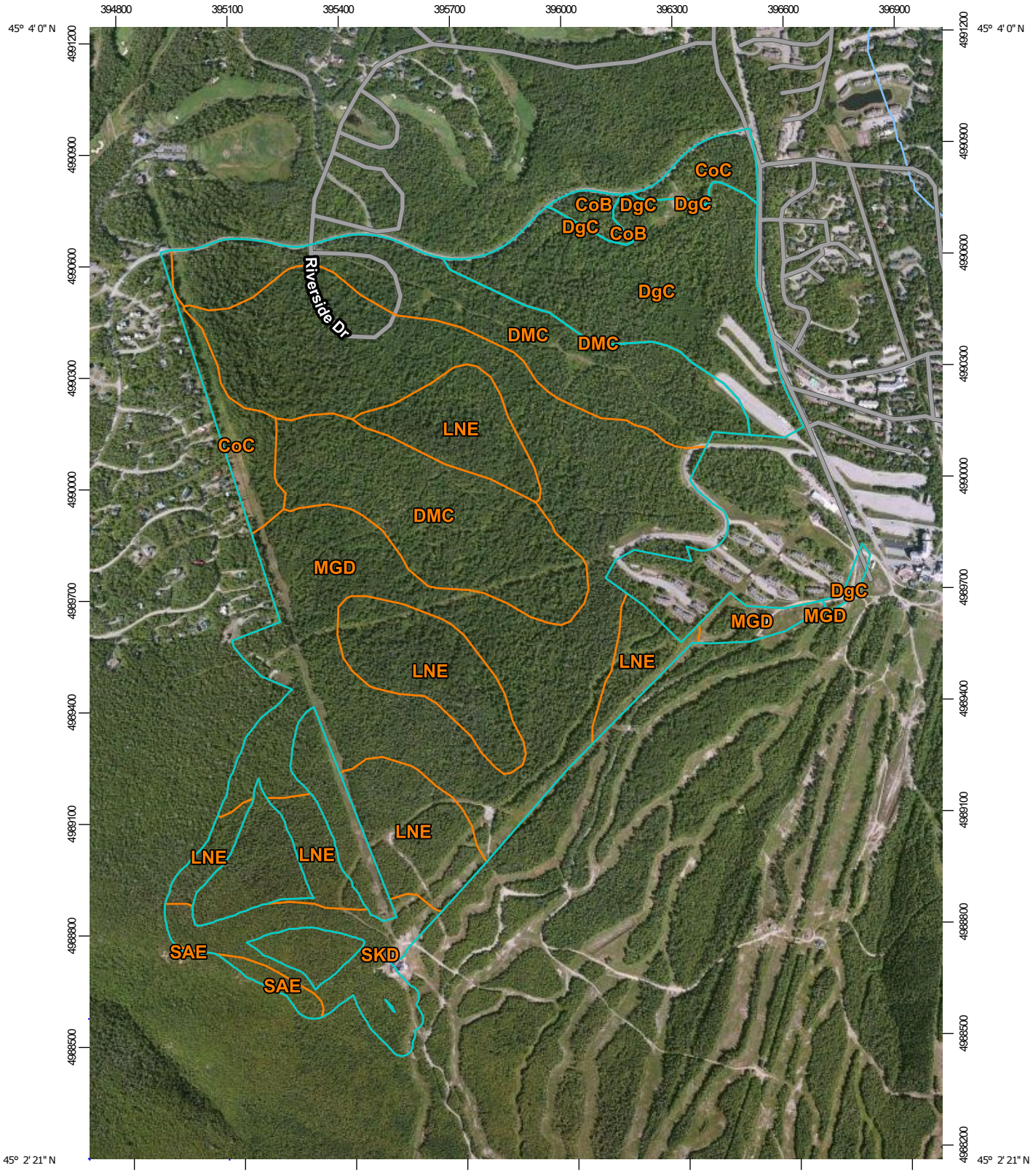
Location Map

Sources:
USA Topo Basemap - Copyright:© 2013 National Geographic Society, i-cubed

APPENDIX 2

NRCS SOILS REPORT

Soil Map—Franklin County Area and Part of Somerset County, Maine
(Sugarloaf West Mountain NRCS Soils Map)



Map Scale: 1:14,800 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 200 400 800 1200

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County Area and Part of Somerset County, Maine
Survey Area Data: Version 22, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2010—Jul 16, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CoB	Colonel fine sandy loam, 0 to 8 percent slopes, very stony	4.2	0.7%
CoC	Colonel fine sandy loam, 8 to 15 percent slopes, very stony	22.8	4.0%
DgC	Peru fine sandy loam, 8 to 15 percent slopes, very stony	72.3	12.8%
DMC	Peru-Marlow association, 3 to 15 percent slopes, very stony	121.0	21.4%
LNE	Lyman-Tunbridge-Abram complex, 15 to 35 percent slopes, rocky	98.0	17.4%
MGD	Marlow-Peru association, 15 to 35 percent slopes, very stony	214.1	37.9%
SAE	Saddleback-Mahoosuc-Sisk association, very steep, very stony	3.7	0.6%
SKD	Sisk-Surplus association, moderately steep, very stony	28.7	5.1%
Totals for Area of Interest		**564.8**	**100.0%**

APPENDIX 3

REPRESENTATIVE SITE PHOTOGRAPHS

Figure 1: View to the north from the top of existing West Mountain Lift.

Boyne Resorts
Wetland Delineation Photographs

PROJECT NUMBER
55310.00

Sugarloaf West Mountain

Carrabassett Valley, Maine

Contents:

I. Wetlands

II. Waters

III. Vernal Pools

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

I. Wetlands

NO. 1

DESCRIPTION

Wetland 2020-115. Seepage from hillslope to ditch adjacent to parking lot in eastern Study Area.

NO. 2

DESCRIPTION

Wetland 2020-5 adjacent to the upper crossroad in middle of Study Area. Representative of naturalizing wetland skid road.

NO. 3

DESCRIPTION

Wetland 2020-11 in center of Study Area. Representative of seepage-fed, graminoid-dominated emergent wetlands.

NO. 4

DESCRIPTION

Wetland 2020-108 in eastern Study area. Representative of scrub-shrub seepage-fed wetlands at lower elevations on West Mountain.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 5

DESCRIPTION

Wetland 2020-6 is the highest elevation delineated wetland. Representative of upper elevation seepage-fed wetlands.

NO. 6

DESCRIPTION

Wetland 2020-25 in northeast portion of Study Area. Representative of softwood swamps on West Mountain.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 7

DESCRIPTION

Wetland 2020-31: emergent seepage slope adjacent to West Mountain Road in northern Study Area.

NO. 8

DESCRIPTION

Understory of Wetland 2020-35. Large palustrine forested wetland in center of Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 9

DESCRIPTION

Wetland 2020-131 in western Study Area. Representative of open canopy, emergent seepage wetlands on West Mountain.

NO. 10

DESCRIPTION

Close up of representative seepage-affinity wetland plants in Wetland 2020-129. Notice surface saturation and organic-rich soil.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 11

DESCRIPTION

Wetland 2020-421 in northeastern Study Area.

NO. 12

DESCRIPTION

Emergent portion of Wetland 2020-1 in ski trail, southeastern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

II. Waters

NO. 13

DESCRIPTION

Up-gradient view of lower reaches of unnamed perennial Stream 2020-TOB-1 in northeastern Study Area.

NO. 14

DESCRIPTION

Down-gradient view of perennial Stream 2020-TOB-1 in reach between upper and lower cross roads.

NO. 15

DESCRIPTION

Down-gradient view of upper reaches of perennial Stream 2020-SC-1 (becomes Stream 2020-TOB-1 in its wider lower reaches) above the upper cross road.

NO. 16

DESCRIPTION

Up-gradient view of intermittent stream channel of Stream 2020-SC-311 in north-central Study Area.

NO. 17

DESCRIPTION

Intermittent channel of Stream 2020-SC-16 in eastern Study Area.

NO. 18

DESCRIPTION

Down-gradient view of perennial stream channel of Stream 2020-SC-210.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 19

DESCRIPTION

Down-gradient view of ditched intermittent stream 2020-SC-201 at Western boundary of Study Area.

NO. 20

DESCRIPTION

Down-gradient view of intermittent channel of Stream 2020-SC-202 in middle of Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

NO. 21

DESCRIPTION

Intermittent Stream 2020-SC-200 in southern Study Area.

NO. 22

DESCRIPTION

Down-gradient view of ditched Stream 2020-SC-120 in eastern Study Area.

Field Assessment Representative Site Photographs
All Photographs taken by VHB Summer 2020.

III. Vernal Pools

NO. 23

DESCRIPTION

Vernal Pool 1 in roadside excavation in eastern Study Area.

NO. 24

DESCRIPTION

Vernal Pool 2 in skidder rut in center of Study Area.

NO. 25

DESCRIPTION

Vernal Pool 3 in softwood swamp Wetland 2020-35.

NO. 26

DESCRIPTION

Vernal Pool 4 in skidder rut in western Study Area.

NO. 27

DESCRIPTION

Vernal Pool 5 in skidder rut in Wetland 2020-35.

NO. 28

DESCRIPTION

Vernal Pool 6, in skidder rut in western Study Area.

APPENDIX 4

SUMMARY OF WETLAND AND WATERWAYS SURVEYED

Summary of Delineated Wetlands
Project: Sugarloaf West Mountain
Client: Boyne Resorts
Location: Carrabassett Valley, Maine
Delineator(s): L. Keszey, M. Jackman, R. Scott
Delineation Date(s): May 20-22nd, June 9-12th and 22-26th, 2020
Prepared By: VHB (L. Keszey, 2.10.21)

VHB Delineated Wetlands							
Wetland ID[1]	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Hydrology Indicator**	**Hydric Soil Indicator**	**WOSS Present[3]**	**Typical Vegetation**	**Comments**
2020-107	4118	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3)	Histic Epipedon (A2)	NO	*Glyceria melicaria,Osmunda claytoniana,Calamagrostis canadensis*	Seepage forest
2020-11	3060	PEM	Saturation (A3), Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex scabrata, Rubus pubescens*	Ephemeral drainage become diffuse in wetland
2020-115	922	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3),Saturation Visible on Aerial (C9)	Depleted Matrix (F3)	NO	*Typha latifolia,Scirpus microcarpus*	Groundwater discharge to ditch next to parking lot
2020-120	5183	PEM	Saturation (A1)	Histic Epipedon (A2)	NO	*Carex scabrata, Carex stipata, Carex gynandra*	Seepy swale
2020-123	2192	PEM	High Water Table (A2),Saturation (A3)	Histosol (A1)	NO	*Carex stipata,Carex gynandra,Onoclea sensibilis*	Seepage adjacent to naturalizing skid road
2020-124	1674	PEM	High Water Table (A2),Saturation (A3),Surface Water (A1),Shallow Aquitard (D3)	Histosol (A1)	NO	*Carex scabrata,Carex gynandra,Betula alleghaniensis*	Seepage slope with emergent hydrophytes
2020-126	366	PEM	Saturation (A3),Water-Stained Leaves (B9),Thin Muck Surface (C7)	Histosol (A1)	NO	*Carex gynandra,Fraxinus pennsylvanica,Rubus pubescens*	Small low topography seepage
2020-129	1343	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex gynandra,Dryopteris intermedia,Onoclea sensibilis*	Discharge slope and runoff from road waterbar.
2020-13	903	PEM	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Onoclea sensibilis, Parathelypteris noveboracensis*	Naturalized skid road with ephemeral in and outflow

Summary of Delineated Wetlands
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VHB Delineated Wetlands							
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2020-18	765	PEM	Saturation (A3),Drainage Patterns (B10),Water-Stained Leaves (B9)	Histic Epipedon (A2)	NO	*Carex scabrata,Carex scabrata*	Wet naturalized skid roads
2020-19	1068	PEM	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3)	Histic Epipedon (A2)	NO	*Carex scabrata, Fraxinus pennsylvanica, Osmunda claytoniana*	Seepage from toe of slope
2020-20	1905	PEM	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3)	Histic Epipedon (A2)	NO	*Carex scabrata, Fraxinus pennsylvanica, Osmunda claytoniana*	Seepage from toe of slope
2020-201	731	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3),Water Marks (B1),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Athyrium asplenioides*	Seep from skidder road
2020-209	5915	PEM	High Water Table (A2),Surface Water (A1),Saturation (A3),Water-Stained Leaves (B9)	Depleted Matrix (F3)	NO	*Osmunda claytoniana,Glyceria melicaria,Onoclea sensibilis*	Forest opening with shallow groundwater
2020-22	11068	PEM	Saturation (A3), Water-Stained Leaves (B9)	Histosol (A1)	NO	*Onoclea sensibilis, Osmunda claytoniana*	Seep from toe of slope
2020-24	5159	PEM	Water-Stained Leaves (B9),Drainage Patterns (B10)	Redox Dark Surface (F6)	NO	*Onoclea sensibilis,Matteuccia struthiopteris*	Drainage from ski slope to forest
2020-27	1128	PEM	Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Histosol (A1)	NO	*Ranunculus acris, Onoclea sensibilis, Equisetum arvense*	Groundwater discharge to roadside ditch
2020-29	1044	PEM	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3),Water-Stained Leaves (B9),Geomorphic Position (D2)	Redox Dark Surface (F6)	NO	*Carex crinita,Onoclea sensibilis*	Diffuse stream in flat topography along road.

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VHB Delineated Wetlands							
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2020-30	12542	PEM	Saturation (A3),Drainage Patterns (B10)	Depleted Matrix (F3)	NO	*Carex scabrata,Onoclea sensibilis*	Legacy ski trail
2020-301	547	PEM	High Water Table (A2),Water-Stained Leaves (B9),Drainage Patterns (B10)	Histosol (A1)	NO	*Rubus pubescens,Impatiens capensis*	Small depressional seep drains via ephemeral channel
2020-302	930	PEM	High Water Table (A2),Water-Stained Leaves (B9),	Redox Dark Surface (F6)	NO	*Carex scabrata, Onoclea sensibilis*	Groundwater disharge slope
2020-31	1698	PEM	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3),Water-Stained Leaves (B9),Geomorphic Position (D2)	Redox Dark Surface (F6)	NO	*Carex crinita,Onoclea sensibilis*	Groundwater discharge to ditch adjacent to West Mountain Road
2020-37	2621	PEM	Saturation (A3), Water-Stained Leaves (B9)	Histosol (A1)	NO	*Glyceria melicaria, Onoclea sensibilis, Carex scabrata*	Logging disturbed opening with seepage
2020-38	4986	PEM	Water-Stained Leaves (B9),Saturation (A3),Drainage Patterns (B10)	Depleted Matrix (F3)	NO	*Carex crinita*	Narrow drainage seep located in and adjacent to old skidder road
2020-39	751	PEM	Saturation (A3), Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex scabrata, Rubus pubescens*	Groundwater discharge slope
2020-400	4476	PEM	Surface Water (A1),Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Histic Epipedon (A2)	NO	*Fraxinus pennsylvanica, Glyceria melicaria*	Open seep with ashes at edges
2020-401	532	PEM	Saturation (A3),High Water Table (A2)	Histic Epipedon (A2)	NO	*Carex scabrata,Osmunda claytoniana,Betula cordifolia*	Seepy forest opening

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VHB Delineated Wetlands							
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2020-402	3650	PEM	Saturation (A3),High Water Table (A2)	Histosol (A1)	NO	*Carex scabrata, Onoclea sensibilis, Acer rubrum*	Open seepy area
2020-41	849	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex gynandra, Onoclea sensibilis*	Seepy swale
2020-417	5446	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histic Epipedon (A2)	NO	*Eutrochium maculatum, Onoclea sensibilis*	In topographic bread associated with naturalized skidder road
2020-420	1600	PEM	Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	NO	*Glyceria melicaria, Onoclea sensibilis, Carex scabrata*	Open canopy seep- potentially naturalized log landing.
2020-44	6631	PEM	Oxidized Rhizospheres on Living Roots (C3),Saturation (A3)	Redox Dark Surface (F6)	NO	*Carex crinita,Onoclea sensibilis*	Naturalizing logging road with seepage
2020-47	1175	PEM	Saturation (A3),Water-Stained Leaves (B9),Thin Muck Surface (C7)	Histosol (A1)	NO	*Onoclea sensibilis, Rubus pubescens*	Groundwater discharge from toe of slope
2020-5	420	PEM	Water-Stained Leaves (B9),Drainage Patterns (B10),Saturation (A3)	Redox Dark Surface (F6)	NO	*Carex scabrata*	Seepage from naturalized skidder road
2020-501	759	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7)	Histosol (A1)	NO	*Carex scabrata*	Seepy swale
2020-52	2165	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Rubus pubescens, Osmunda claytoniana*	Groundwater discharge slope

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VHB Delineated Wetlands							
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2020-53	5822	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex crinita, Onoclea sensibilis*	Seepage in naturalized skidder road in relatively flatter topography
2020-6	472	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7)	Histosol (A1)	NO	*Dryopteris intermedia, Carex scabrata*	Small seep with ephemeral outflow
2020-7	713	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7)	Histosol (A1)	NO	*Dryopteris intermedia, Carex scabrata*	Small seep with ephemeral outflow
2020-8	1008	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7)	Histosol (A1)	NO	*Oxalis montana, Onoclea sensibilis*	Seep in open forest
2020-1	15363	PEM	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9),Iron Deposits (B5),Shallow Aquitard (D3)	Histosol (A1)	YES	*Onoclea sensibilis,Carex crinita*	Ski slope with groundwater discharge drains to stream 2020-SC-1
2020-10	2117	PEM	High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	YES	*Carex scabrata,Onoclea sensibilis*	Naturalizing skidder road
2020-12	27994	PEM	High Water Table (A2),Water-Stained Leaves (B9),Drainage Patterns (B10),Saturation (A3), Microtopographic Relief (D4)	Histic Epipedon (A2)	YES	*Carex scabrata,Rubus pubescens*	Large, cutover complex with wetland microtopography
2020-125	1358	PEM	Saturation (A3),High Water Table (A2),Hydrogen Sulfide Odor (C1),Presence of Reduced Iron (C4),Thin Muck Surface (C7)	Histosol (A1)	YES	*Onoclea sensibilis,Carex gynandra,Salix bebbiana*	Seepy opening in forest
2020-17	8538	PEM	Saturation (A3),Drainage Patterns (B10),Water-Stained Leaves (B9)	Histic Epipedon (A2)	YES	*Carex scabrata,Carex scabrata*	Wet naturalized skid roads

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2020-204	1344	PEM	Saturation (A3)	Histosol (A1)	YES	*Carex scabrata,Glyceria melicaria*	Seepy stream-side bowl
2020-205	5839	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Carex scabrata,Glyceria melicaria*	Discharge slope
2020-21	5159	PEM	Saturation (A3), Water-Stained Leaves (B9)	Histosol (A1)	YES	*Rubus pubescens, Osmunda claytoniana*	Seep from toe of slope
2020-25	8533	PEM	Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Depleted Matrix (F3)	YES	*Onoclea sensibilis,Abies balsamea*	Forested wetland with drainage patterns
2020-28	804	PEM	Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	YES	*Onoclea sensibilis*	Toe of slope feature drains to culvert
2020-4	1652	PEM	Surface Water (A1),Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Histic Epipedon (A2)	YES	*Rubus pubescens,Carex scabrata*	Seepage from break in slope
2020-40	360	PEM	Surface Water (A1),Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Histic Epipedon (A2)	YES	*Impatiens capensis, Thalictrum pubescens*	Wet swale associated with historic skid road
2020-407	43336	PEM	Surface Water (A1),High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Glyceria melicaria, Carex scabrata, Onoclea sensibilis*	Seep with logging history
2020-408	670	PEM	Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Redox Dark Surface (F6)	YES	*Carex scabrata,Fraxinus pennsylvanica*	Forested wetland with drainage patterns

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2020-409	692	PEM	Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Redox Dark Surface (F6)	YES	*Onoclea sensibilis, Rubus pubescens*	Groundwater discharge to intermittent stream
2020-411	1805	PEM	Saturation (A3),Water-Stained Leaves (B9)	Depleted Below Dark Surface (A11)	YES	*Carex crinita,Onoclea sensibilis*	Toe of slope feature becomes diffuse down slope
2020-413	350	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histic Epipedon (A2)	YES	*Carex scabrata*	Seepy swale drains to stream
2020-416	837	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histic Epipedon (A2)	YES	*Onoclea sensibilis*	Seepy swale
2020-418	1758	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Carex crinita, Onoclea sensibilis*	Seepage from topography break in forest
2020-419	956	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Carex scabrata*	Groundwater disharge to stream
2020-421	1434	PEM	Saturation (A3),Water-Stained Leaves (B9), Geomorphic Position (D2)	Histosol (A1)	YES	*Carex gynandra, Onoclea sensibilis*	Open canopy seep along stream
2020-43	1087	PEM	Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	YES	*Solanum dulcamara, Onoclea sensibilis*	Emergent vegetation dominated seepage clearing at toe of slope
2020-49	757	PEM	Saturation (A3),Water-Stained Leaves (B9), Geomorphic Position (D2)	Histosol (A1)	YES	*Onoclea sensibilis, Carex scabrata*	Seepy bench along stream

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2020-50	1131	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Carex crinita, Onoclea sensibilis*	Seepage near naturalized log landing
2020-51	827	PEM	Saturation (A3),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Acer rubrum, Osmunda claytoniana, Carex gynandra*	Seepy area along stream
2020-9	8106	PEM	Saturation (A3),Surface Water (A1),Thin Muck Surface (C7)	Histosol (A1)	YES	*Scirpus atrovirens, Onoclea sensibilis*	Naturalized logging roads with seepage
2020-101	1066	PFO	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex scabrata, Betula alleghaniensis*	Naturalizing skidder rut
2020-102	2065	PFO	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Carex scabrata, Rubus pubescens*	Seep in logged forest
2020-108	3473	PFO	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3)	Depleted Below Dark Surface (A11)	NO	*Parathelypteris noveboracensis,Fraxinus pennsylvanica,Calamagrostis canadensis*	Open flat area with sandy soils
2020-117	730	PFO	Surface Water (A1),High Water Table (A2),Saturation (A3)	Histosol (A1)	NO	*Fraxinus pennsylvanica,Carex scabrata*	Small seep with muck
2020-118	6523	PFO	High Water Table (A2),Saturation (A3)	Redox Dark Surface (F6)	NO	*Fraxinus pennsylvanica,Carex gynandra,Osmunda claytoniana*	Open canopy seep
2020-119	1429	PFO	Saturation (A3)	Histic Epipedon (A2)	NO	*Rubus pubescens,Glyceria melicaria,Acer pensylvanicum*	Open seep within birch glade

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2020-121	4154	PFO	High Water Table (A2),Saturation (A3),Geomorphic Position (D2)	Histic Epipedon (A2)	NO	*Carex scabrata,Osmunda claytoniana,Betula alleghaniensis*	Seep within forest opening
2020-122	2733	PFO	High Water Table (A2),Saturation (A3),Thin Muck Surface (C7)	Histosol (A1)	NO	*Carex gynandra,Carex scabrata,Osmunda claytoniana*	Stream spreads out into logged forest
2020-127	3160	PFO	Saturation (A3),Shallow Aquitard (D3)	Depleted Below Dark Surface (A11)	NO	*Carex gynandra,Fraxinus pennsylvanica,Rubus pubescens*	Naturalizing legacy logging road
2020-128	235	PFO	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Rubus pubescens,Galium trifidum,Circaea alpina*	Small seep goes underground downslope.
2020-130	1900	PFO	Saturation (A3),Water-Stained Leaves (B9),Hydrogen Sulfide Odor (C1),Thin Muck Surface (C7),Shallow Aquitard (D3)	Histosol (A1)	NO	*Carex scabrata,Onoclea sensibilis,Fraxinus pennsylvanica*	Open canopy seep
2020-131	3793	PFO	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3)	Depleted Below Dark Surface (A11)	NO	*Calamagrostis canadensis,Onoclea sensibilis,Fraxinus pennsylvanica*	Groundwater discharge from toe of slope
2020-16	926	PFO	High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9),Oxidized Rhizospheres on Living Roots (C3)	Redox Dark Surface (F6)	NO	*Onoclea sensibilis*	Between skid roads
2020-200	812	PFO	Surface Water (A1),Saturation (A3),Water Marks (B1),Water-Stained Leaves (B9)	Histosol (A1)	NO	*Glyceria canadensis*	Narrow seep
2020-208	12577	PFO	Surface Water (A1),High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	NO	*Glyceria melicaria,Onoclea sensibilis*	Seepy forest opening

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2020-226	4496	PFO	Saturation (A3)	Histosol (A1)	NO	*Onoclea sensibilis,Betula alleghaniensis,Carex scabrata*	Seepage opening
2020-227	1051	PFO	Saturation (A3)	Histosol (A1)	NO	*Betula alleghaniensis,Carex scabrata*	Open seep in forest
2020-23	637	PFO	Water-Stained Leaves (B9),Drainage Patterns (B10)	Redox Dark Surface (F6)	NO	*Onoclea sensibilis, Betula alleghaniensis*	Wet swale with recent soil deposits
2020-32	12963	PFO	High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9),Drainage Patterns (B10),Geomorphic Position (D2)	Histic Epipedon (A2)	NO	*Onoclea sensibilis*	Naturalizing skidder ruts at toe of slope
2020-34	38888	PFO	Surface Water (A1),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	NO	*Carex crinita*	Naturalizing skidder road and log landing drains to wet woods
2020-403	3642	PFO	Saturation (A3),High Water Table (A2)	Histosol (A1)	NO	*Carex scabrata,Acer rubrum,Carex gynandra*	Seepage at toe of slope to naturalized log landing
2020-404	77569	PFO	Surface Water (A1),High Water Table (A2),Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	NO	*Carex scabrata, Carex gynandra, Acer rubrum*	Water bar and groundwater discharge in ski trail dumps into open, disturbed forest with logging history
2020-410	553	PFO	Saturation (A3),High Water Table (A2)	Histic Epipedon (A2)	NO	*Carex scabrata,Osmunda claytoniana,Betula cordifolia*	Seepy forest opening
2020-412	2276	PFO	Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	NO	*Onoclea sensibilis*	Seepage drains to ditch along West Mountain Access Road

Summary of Delineated Wetlands
Project: Sugarloaf West Mountain
Client: Boyne Resorts
Location: Carrabassett Valley, Maine
Delineator(s): L. Keszey, M. Jackman, R. Scott
Delineation Date(s): May 20-22nd, June 9-12th and 22-26th, 2020
Prepared By: VHB (L. Keszey, 2.10.21)

VHB Delineated Wetlands							
Wetland ID[1]	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Hydrology Indicator**	**Hydric Soil Indicator**	**WOSS Present[3]**	**Typical Vegetation**	**Comments**
2020-45	4644	PFO	Geomorphic Position (D2),Oxidized Rhizospheres on Living Roots (C3),Saturation (A3)	Depleted Matrix (F3)	NO	*Carex crinita,Onoclea sensibilis*	Seepage from toe of slope with logging legacy
2020-46	5241	PFO	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9),Drainage Patterns (B10),Shallow Aquitard (D3)	Histic Epipedon (A2)	NO	*Galium palustre,Carex crinita*	Seepage from topography break in forest
2020-100	2814	PFO	Saturation (A3),High Water Table (A2),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Carex scabrata, Rubus pubescens, Betula alleghaniensis*	Seepy swale with organic soils
2020-116	6352	PFO	Surface Water (A1),High Water Table (A2),Drift Deposits (B3),Water-Stained Leaves (B9),Drainage Patterns (B10)	Depleted Below Dark Surface (A11)	YES	*Abies balsamea,Acer rubrum,Calamagrostis canadensis*	Parking lot ditch ends in wet swale in forest
2020-202	2478	PFO	High Water Table (A2),Surface Water (A1),Saturation (A3)	Histosol (A1)	YES	*Carex scabrata,Glyceria melicaria*	Seepage slope
2020-203	1201	PFO	High Water Table (A2),Surface Water (A1),Saturation (A3)	Histosol (A1)	YES	*Carex scabrata,Glyceria melicaria*	Seepage slope
2020-206	1696	PFO	High Water Table (A2),Surface Water (A1),Saturation (A3)	Histosol (A1)	YES	*Carex scabrata,Glyceria melicaria*	Seepage slope
2020-300	5953	PFO	High Water Table (A2),Water-Stained Leaves (B9),Drainage Patterns (B10)	Depleted Matrix (F3)	YES	*Onoclea sensibilis, Fraxinus pennsylvanica*	Disturbed groundwater disharge area
2020-33	1654	PFO	Saturation (A3),Water-Stained Leaves (B9)	Redox Dark Surface (F6)	YES	*Carex crinita*	Skid road associated wetland drains to stream

Summary of Delineated Wetlands
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VHB Delineated Wetlands							
Wetland ID[1]	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Hydrology Indicator**	**Hydric Soil Indicator**	**WOSS Present[3]**	**Typical Vegetation**	**Comments**
2020-35	159508	PFO	Surface Water (A1),Water-Stained Leaves (B9)	Histosol (A1)	YES	*Acer rubrum, Abies balsamea, Betula alleghaniensis*	Softwood swamp in relatively flatter topography
2020-414	107445	PFO	Water-Stained Leaves (B9),Saturation (A3),Oxidized Rhizospheres on Living Roots (C3),Geomorphic Position (D2),Drainage Patterns (B10)	Depleted Matrix (F3),Redox Dark Surface (F6)	YES	*Onoclea sensibilis,Betula alleghaniensis*	Large wetland with much groundwater movement from upslope
2020-42	2037	PFO	Saturation (A3),Oxidized Rhizospheres on Living Roots (C3),Drainage Patterns (B10)	Depleted Matrix (F3)	YES	*Carex crinita,Acer rubrum*	Seepage from naturalizing log landing
2020-48	2654	PFO	Saturation (A3),Water-Stained Leaves (B9),Thin Muck Surface (C7)	Redox Dark Surface (F6),Depleted Matrix (F3)	YES	*Carex crinita,Rubus pubescens*	Naturalizing old skidder road

[1]All wetlands field delineated per the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northeast and North Central Region.* U.S. Army Corps of Engineers. 2012

[2]Classification follows Cowardin, L.M., Carter, V., Golet, F.C. and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitat of the United States. U.S. Fish and Wildlife Service. FWS/OBD-79/31.*

[3] Under Chapter 310 of NRPA, wetlands in Maine receive additional protection when they qualify as Wetlands of Special Significance ("WOSS"). Wetlands that qualify at WOSS within the Study Area meet the following criteria: (8)River, stream, or brook. The freshwater wetland area is located within 25 feet of a river, stream, or brook (DEP, 2019)

Summary of Delineated Streams
Project: Sugarloaf West Mountain
Client: Boyne Resorts
Location: Carrabassett Valley, Maine
Delineator(s): L. Keszey, M. Jackman, R. Scott, K. Maines
Delineation Date(s): May 20-22nd, June 9-12th and 22-26th, 2020
Prepared By: VHB (L. Keszey, 2.10.21)

VHB Delineated Streams							
Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-JD-17	None	5	Sand	1	Intermittent	B, C	Ditched stream in Eastern Study Area along parking lot starts outside of Study Area and flows into ephemeral channel
2020-SC-1	2020-1	2.5	Cobble	2	Intermittent	B, C	Intermittent channel in eastern Study Area flows from groundwater discharge in ski slope to join 2020-SC-2
2020-SC-10	2020-35	2	Cobble	1	Intermittent	B, C	Stream channel from groundwater discharge slope to Wetland 2020-35, subeterranean in some reaches.
2020-SC-101	None	3	Cobble, organic	2	Intermittent	B, C	Seepy stream channel goes subterranean. In upper elevations of eastern Study Area.
2020-SC-102	2020-100	3.0	Cobble, Gravel	3	Intermittent	B, C	Defined channel goes underground at times before joining 2020-SC-5
2020-SC-104	None	2.0	Organic	1	Intermittent	B, C	Seepy swale forms defined channel before joining 2020-SC-102

Summary of Delineated Streams
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Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-SC-11	2020-12	2	Cobble	1	Intermittent	B, C	Intermittent channel flowing from seepage slope to Wetland 2020-12, subterranean in some reaches
2020-SC-125	None	3.5	Cobble	2	Intermittent	C, D	Seepy swale forms defined channel before flowing east through culvert out of Study Area.
2020-SC-18	2020-50	2	Gravel	1	Intermittent	B, C	Channel originates from seepage from wetland 2020-50 to culvert under lower cross road.
2020-SC-2	None	5.0	Cobble	3	Intermittent	B, C	Steep gradient stream in eastern Study Area originates from ski trail groundwater discharge then flows north to join Stream 2020-SC-1
2020-SC-200	None	2.0	Cobble, Organic	2	Intermittent	B, C	High elevation intermittent stream channel in southwestern Study Area goes underground just outside of Study Area, flowing west.
2020-SC-201	None	2.5	Cobble	1	Intermittent	B, C	Ditched/culverted intermittent stream flows west outside of Study Area.

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Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-SC-202	2020-9, 2020-10, 2020-202, 2020-204, 2020-205, 2020-206, 2020-407	3.0	Cobble, Organic	1	Intermittent	B, C	Seepage outflow from Wetland 2020-9 forms defined channel and flows north through a number of other Wetlands. Often diffuse within delineated wetlands.
2020-SC-205	2020-17, 2020-21, 2020-421, 2020-300	4.0	Cobble, Boulder	3	Intermittent	B, C	Defined stream channel with flashy flows, likely straightened in portions.
2020-SC-211	2020-125, 2020-28	3	Sand, gravel	1	Intermittent	B, C	Developing channel flows north from Wetland 2020-125 in northern Study Area.
2020-SC-212	None	2	Gravel, organic	1	Intermittent	B, C	Intermittent channel orginates from wetland seeps and joins ditch along West Mountain Road
2020-SC-216	2020-416, 2020-40, 2020-49	5	Boulder, Cobble	1	Intermittent	B, C	Stream in center of Study Area is braided at times and goes subterranean in logging road at bottom of channel

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VHB Delineated Streams							
Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-SC-218	2020-42, 2020-33,	7	Boulder, Gravel	1	Intermittent	B, C	High gradient stream flowing north in center of Study Area through natural vally with much sand and gravel deposition
2020-SC-30	None	2	Sand	1	Intermittent	B, C	Culvert under northern cross road creates short intermittent stream segment that goes subterranean at the northern terminus
2020-SC-304	2020-418	2	Cobble	2	Intermittent	B, C	Upper reaches of Stream 2020-SC-22 south of the northern cross road. In natural valley, but braided and subterranean at times
2020-SC-31	None	2	Cobble, Gravel	1	Intermittent	B, C	High gradient stream channel with much gravel deposits. Joins Stream 2020-SC-216 in central Study Area and flows north.
2020-SC-311	None	3	Cobble	1	Intermittent	B, C	Stream channel sometimes subterranean and with lots of leaf and gravel deposits from flashy spring flows, becomes ephemeral north of culvert.
2020-SC-316	2020-411	1.5	Organic	2	Intermittent	B, C	Seepy short stream channel ends in Wetland 2020-411

Summary of Delineated Streams
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Delineation Date(s): May 20-22nd, June 9-12th and 22-26th, 2020
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VHB Delineated Streams							
Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-SC-318	2020-419, 2020-51	2	Organic	2	Intermittent	B, C	Stream originates from groundwater discharge from Wetland 2020-419 and becomes Stream 2020-SC-212 below culvert
2020-SC-33	2020-43	1	Gravel, organic	1	Intermittent	B, C	Poorly defined stream channel in center of Study Area becomes diffuse downslope
2020-SC-36	None	1	Boulder, Cobble	1	Intermittent	B, C	Erosion within skid road creates stream channel that joins 2020-SC-123
2020-SC-5	2020-4	2.5	Cobble	1	Intermittent	B, C	Steep rocky channel goes subterranean in some reaches
2020-SC-1	None	4.0	Cobble	2	Perennial	B, C	Perennial reach of stream below confluence with 2020-SC-2
2020-SC-120	None	10	Gravel	1	Perennial	B, C	Perennial stream originates from outside of Study Area and enters eastern Study Area via large culvert. Likely constructed channel

Summary of Delineated Streams
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Delineator(s): L. Keszey, M. Jackman, R. Scott, K. Maines
Delineation Date(s): May 20-22nd, June 9-12th and 22-26th, 2020
Prepared By: VHB (L. Keszey, 2.10.21)

VHB Delineated Streams							
Stream ID	**Delineated Area (Square Feet)**	**Cowardin Classification[2]**	**Dominant Substrate**	**Water Depth (Inches)**	**Flow Regime (Ephemeral, Intermittent, or Perennial)[2]**	**NRPA Criteria**	**Comments**
2020-SC-123	2020-48	4	Gravel	1	Perennial	B, C	Perennial stream in center of Study Area with apparent straightening along logging road.
2020-SC-126	None	4	Cobble	1	Perennial	B, C	Small side channel of Stream 2020-TOB-1
2020-SC-210	None	5	Cobble	2	Perennial	B, C	Perennial channel flowing north below confluence of Streams 2020-SC-123 and 2020-SC-5 in eastern Study Area.
2020-SC-22	2020-413, 2020-414	4	Gravel	1	Perennial	B, C	From culverted Stream 2020-Sc-304, this channel flows north in the center of the Study Area before becoming diffuse in Wetland 2020-414.
2020-TOB-1	2020-116	13	Boulder, Cobble	3	Perennial	B, C	Lower, perennial reaches of significant stream that crosses under West Mountain Road via bridge in the northeast corner of the Study Area.

[1] U.S. Army Corps of Engineers. 2005. *Regulatory Guidance Letter. Subject: Ordinary High Water Mark Identification. No. 05-05.*

[2] Stream flow regimes determined based on qualitative observations of in stream hydrology indicators and geomorphic characteristic and are subject to professional judgment.

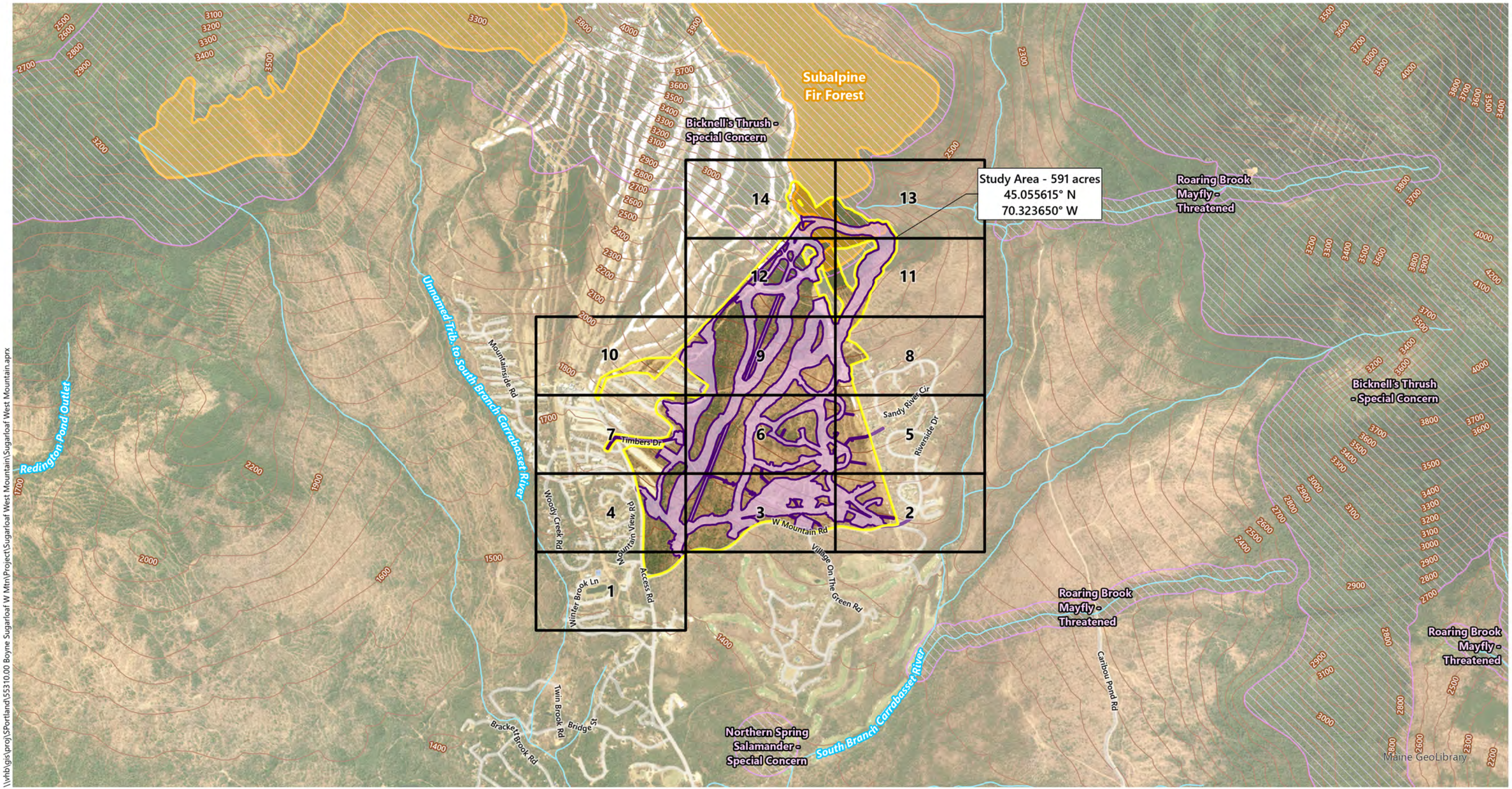
APPENDIX 5

NATURAL RESOURCES MAPPING

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

September 05, 2021



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- Map Sheet Index (VHB)
- Proposed LOD (VHB)
- Study Area (VHB)
- NHD Stream (USDA)
- Contours 100 Feet (MG)
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Sugarloaf West Mountain | Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
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VHB - 2020-2021

Natural Resources Index

BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

September 05, 2021

0 100 200 400 Feet

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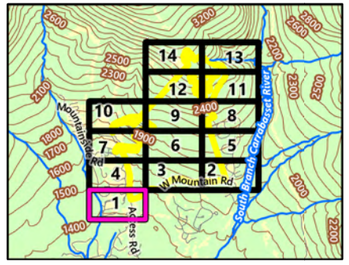

Sugarloaf West Mountain

Carrabassett Valley, Maine

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VHB - 2020-2021

Natural Resources
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BOYNE RESORTS
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vhb

September 05, 2021

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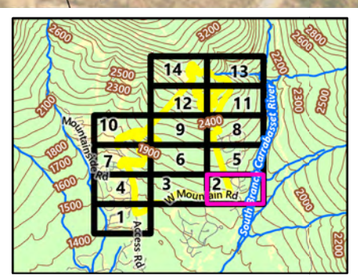

Sugarloaf West Mountain

Carrabassett Valley, Maine

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Natural Resources
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BOYNE RESORTS
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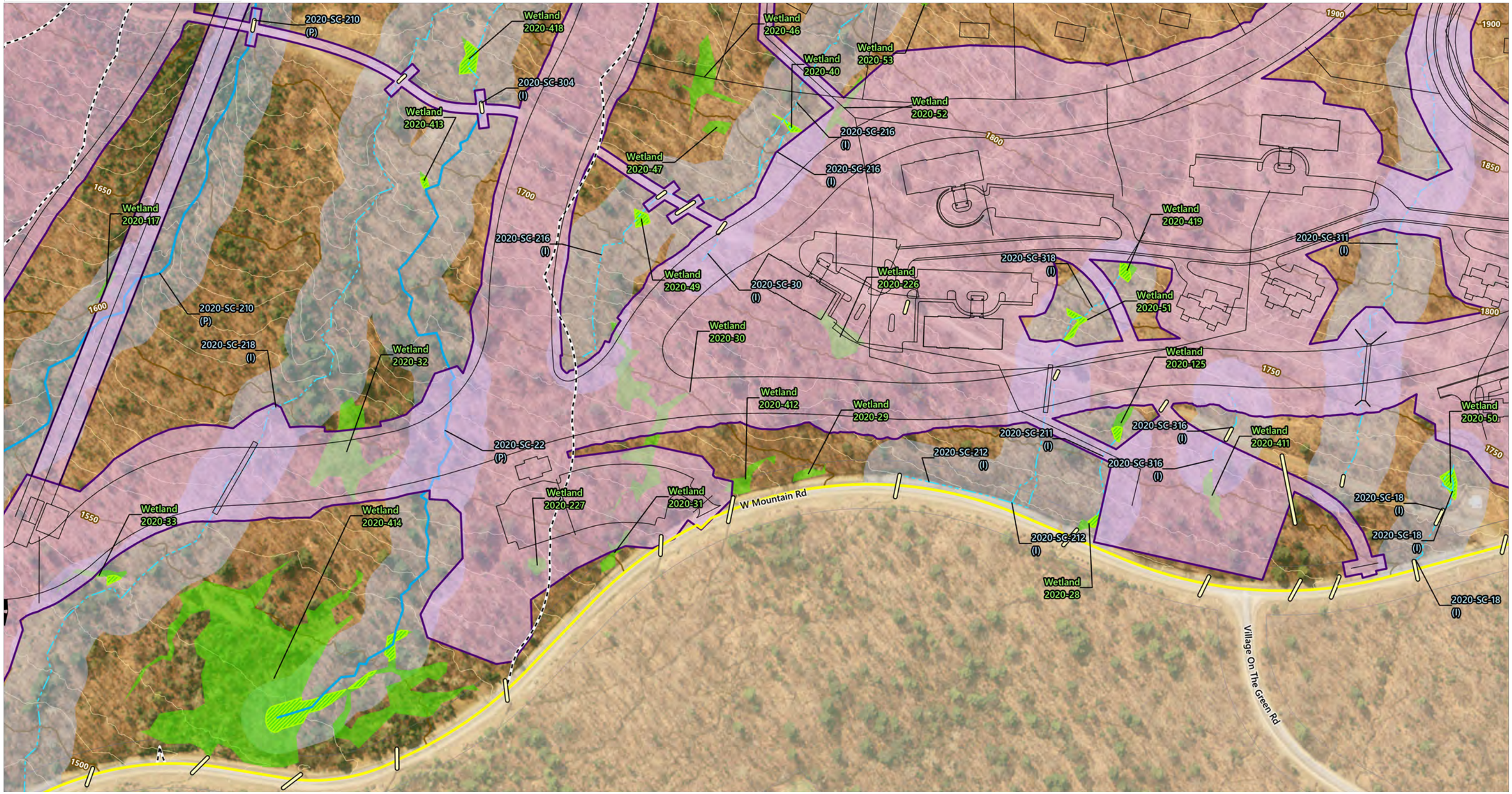
September 05, 2021



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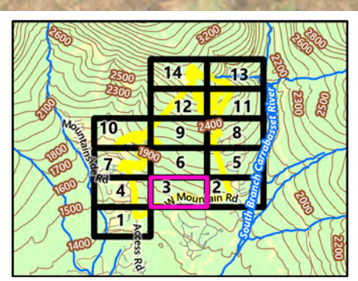

Sugarloaf West Mountain

Carrabassett Valley, Maine

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Natural Resources
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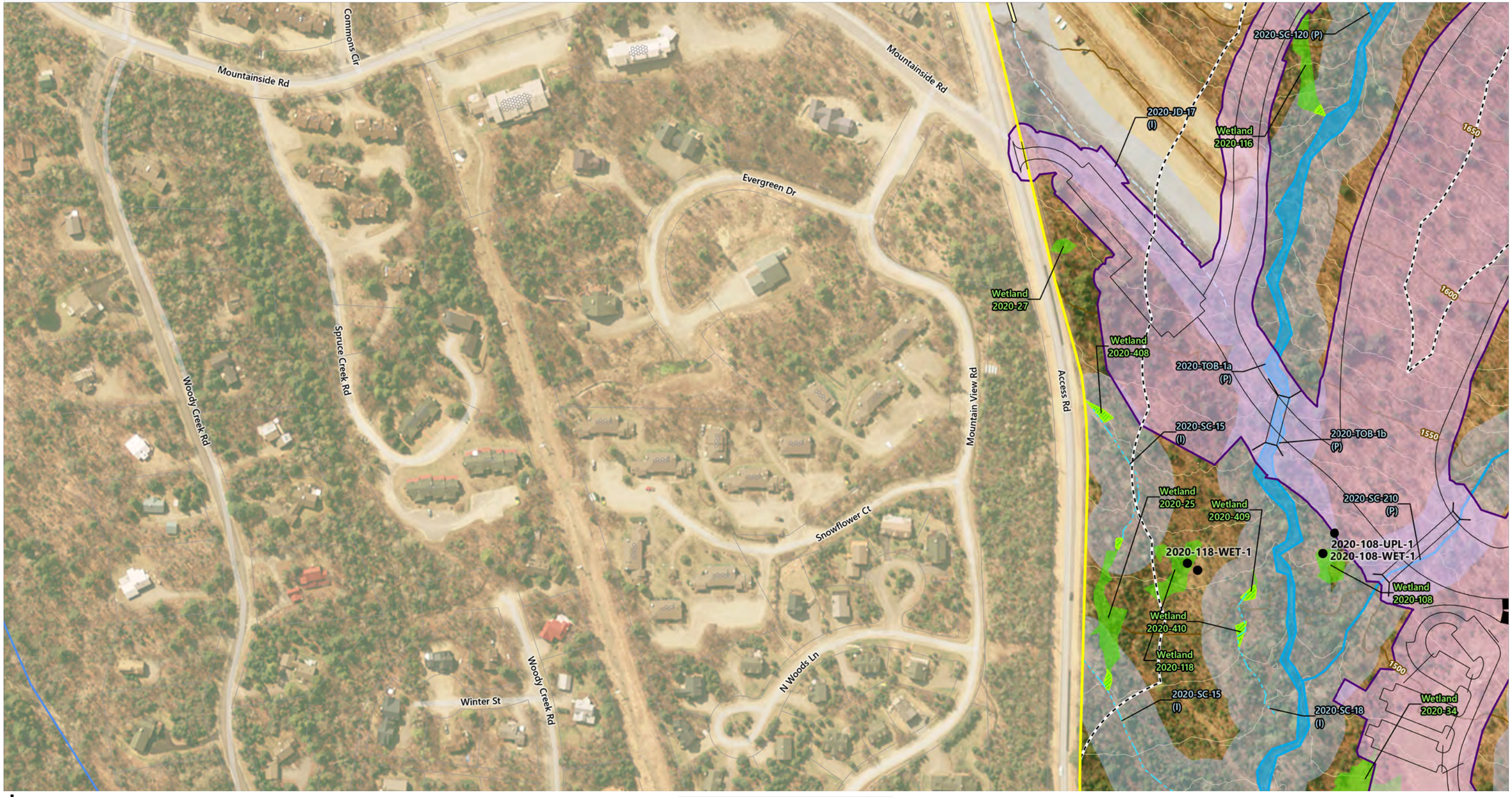
BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

September 05, 2021



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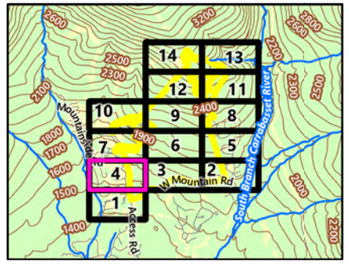

Sugarloaf West Mountain

Carrabassett Valley, Maine

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September 05, 2021

0 100 200 400 Feet

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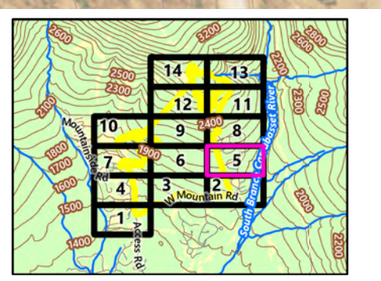

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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vhb

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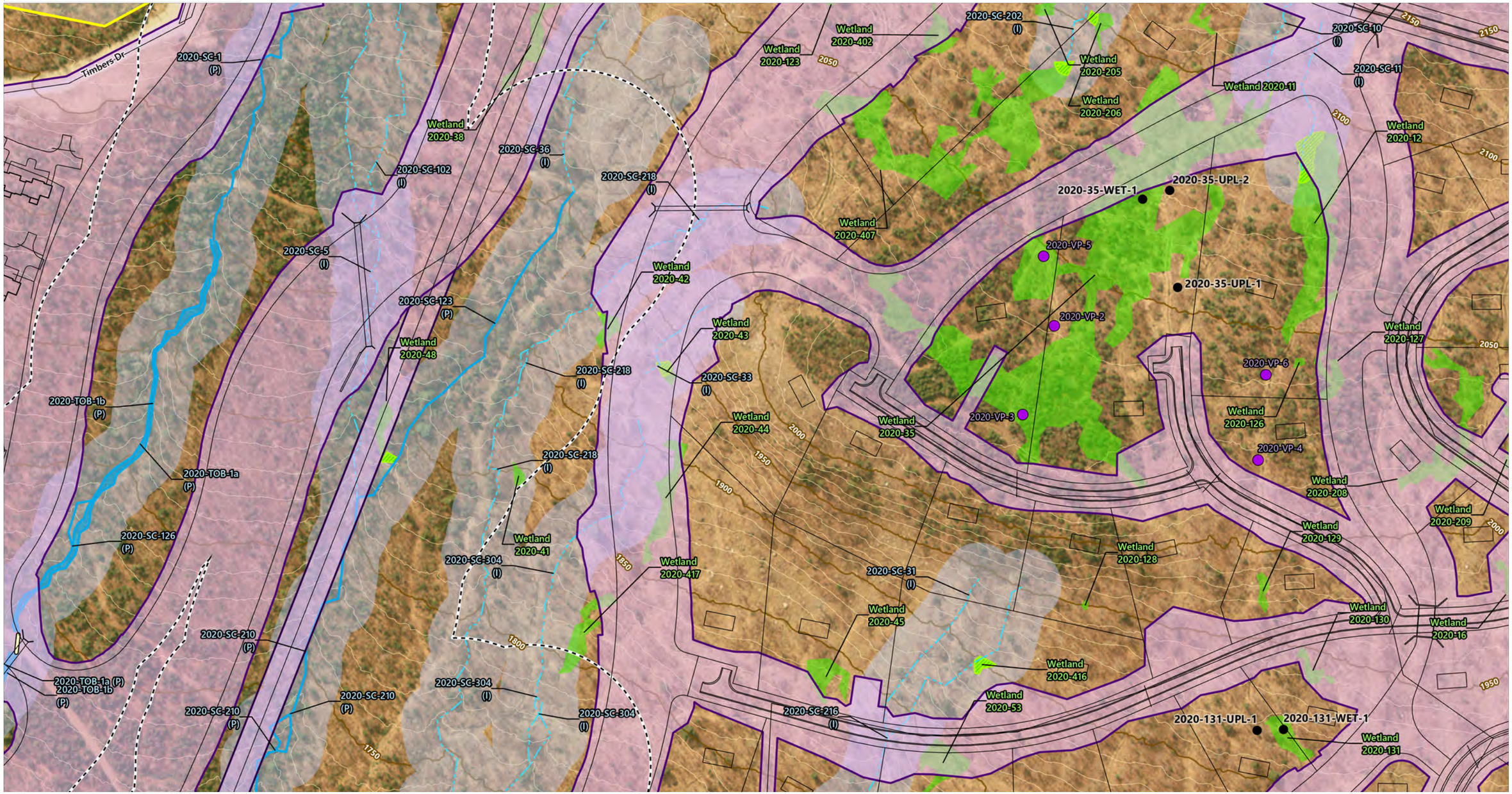

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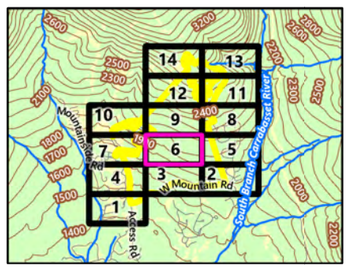

Sugarloaf West Mountain | Carrabassett Valley, Maine

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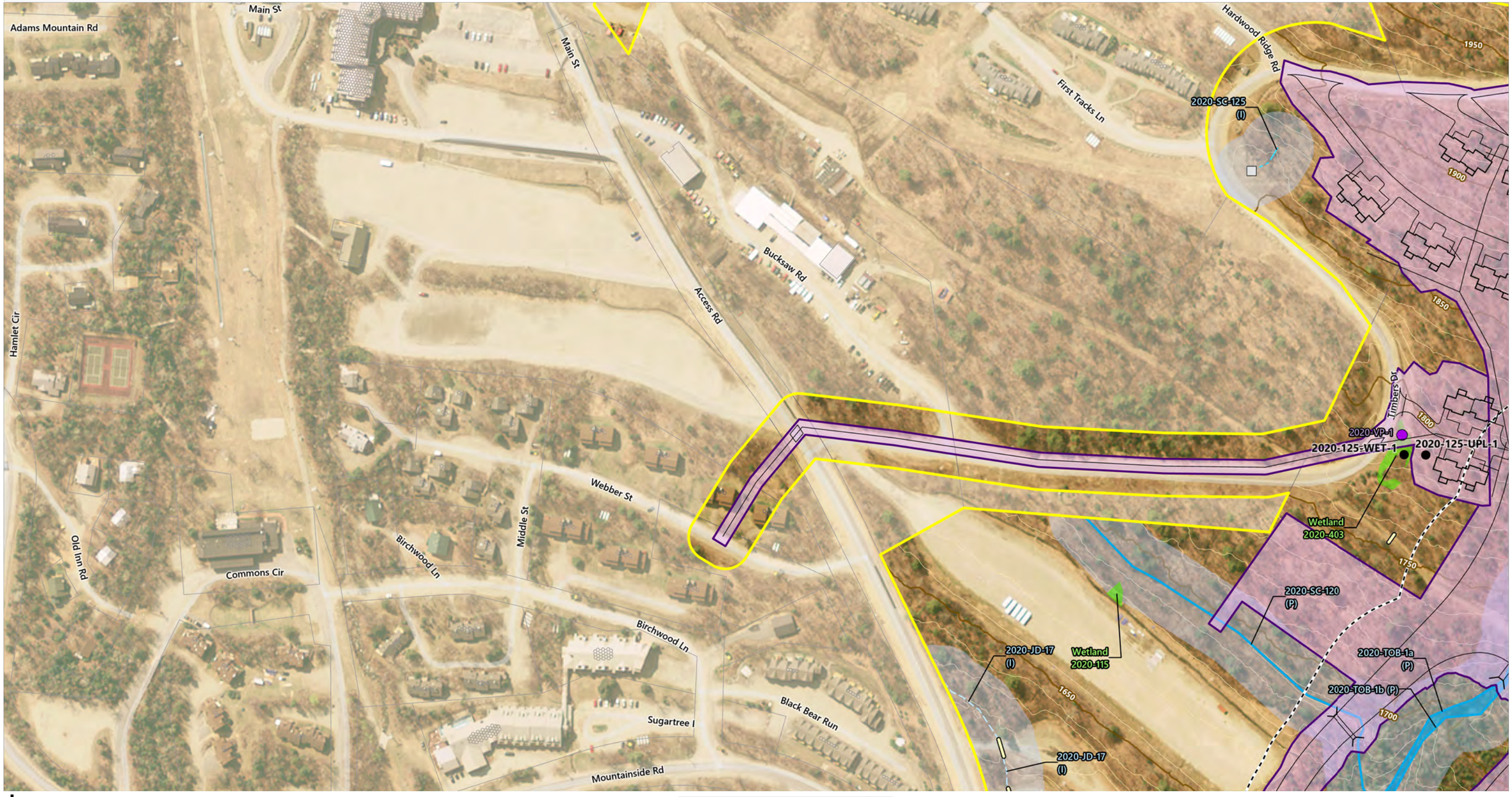

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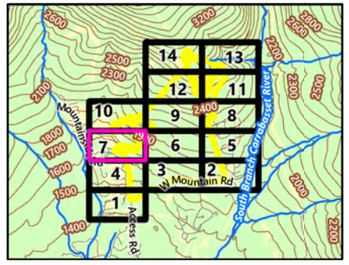

Sugarloaf West Mountain

Carrabassett Valley, Maine

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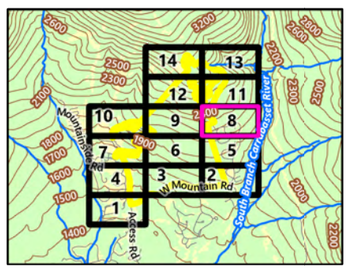

Sugarloaf West Mountain

Carrabassett Valley, Maine

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BOYNE RESORTS
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vhb

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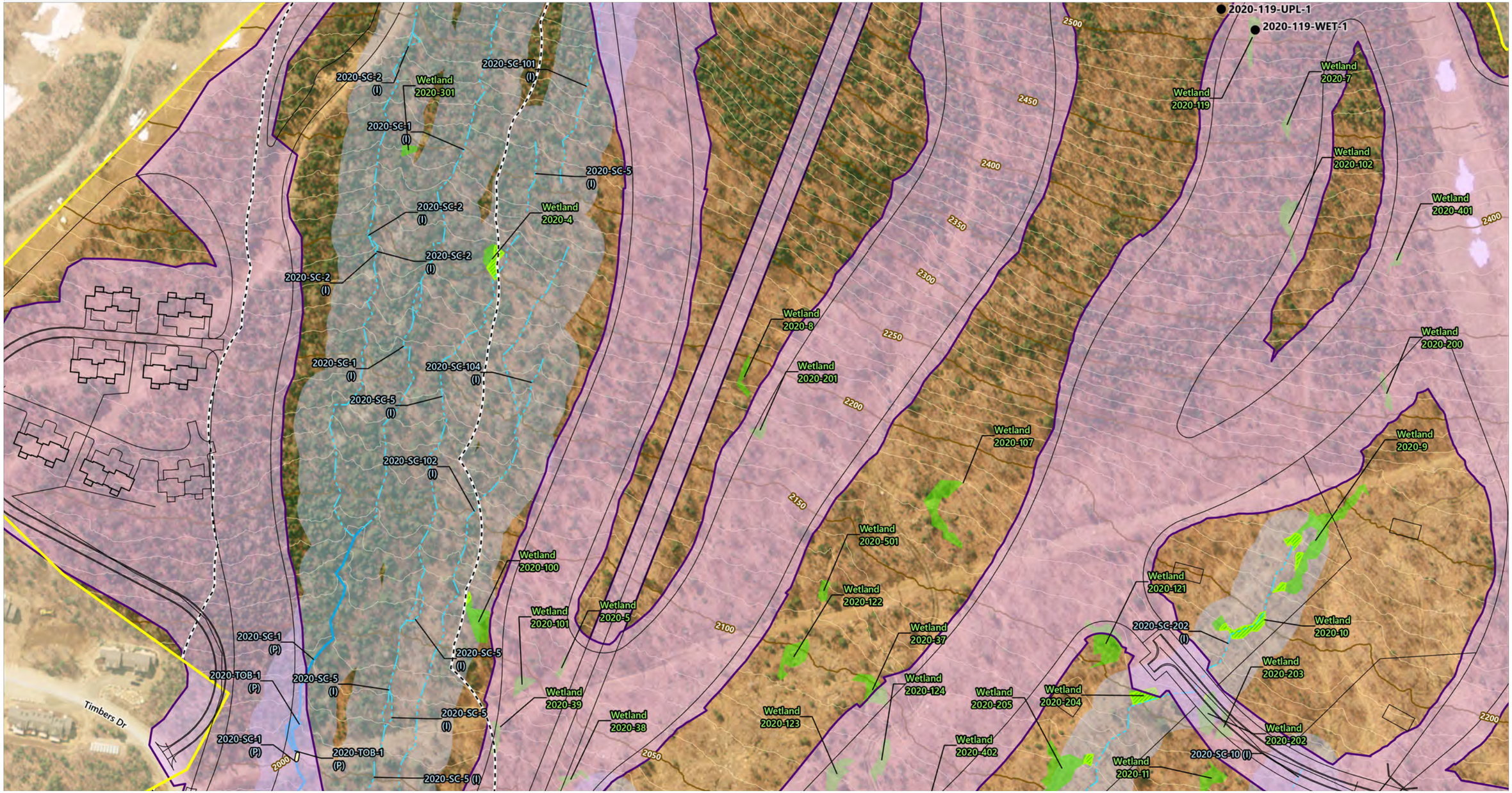

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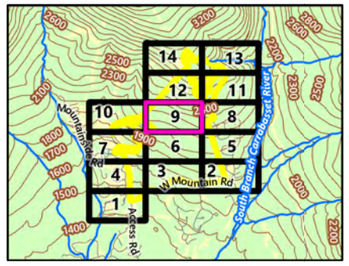

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Carrabassett Valley, Maine

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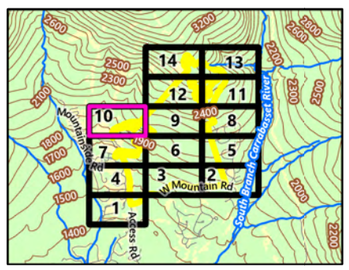

Sugarloaf West Mountain

Carrabassett Valley, Maine

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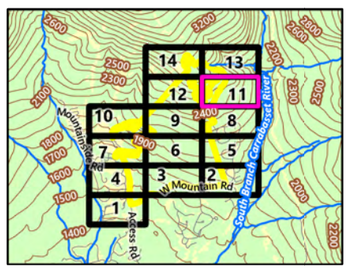

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BOYNE RESORTS
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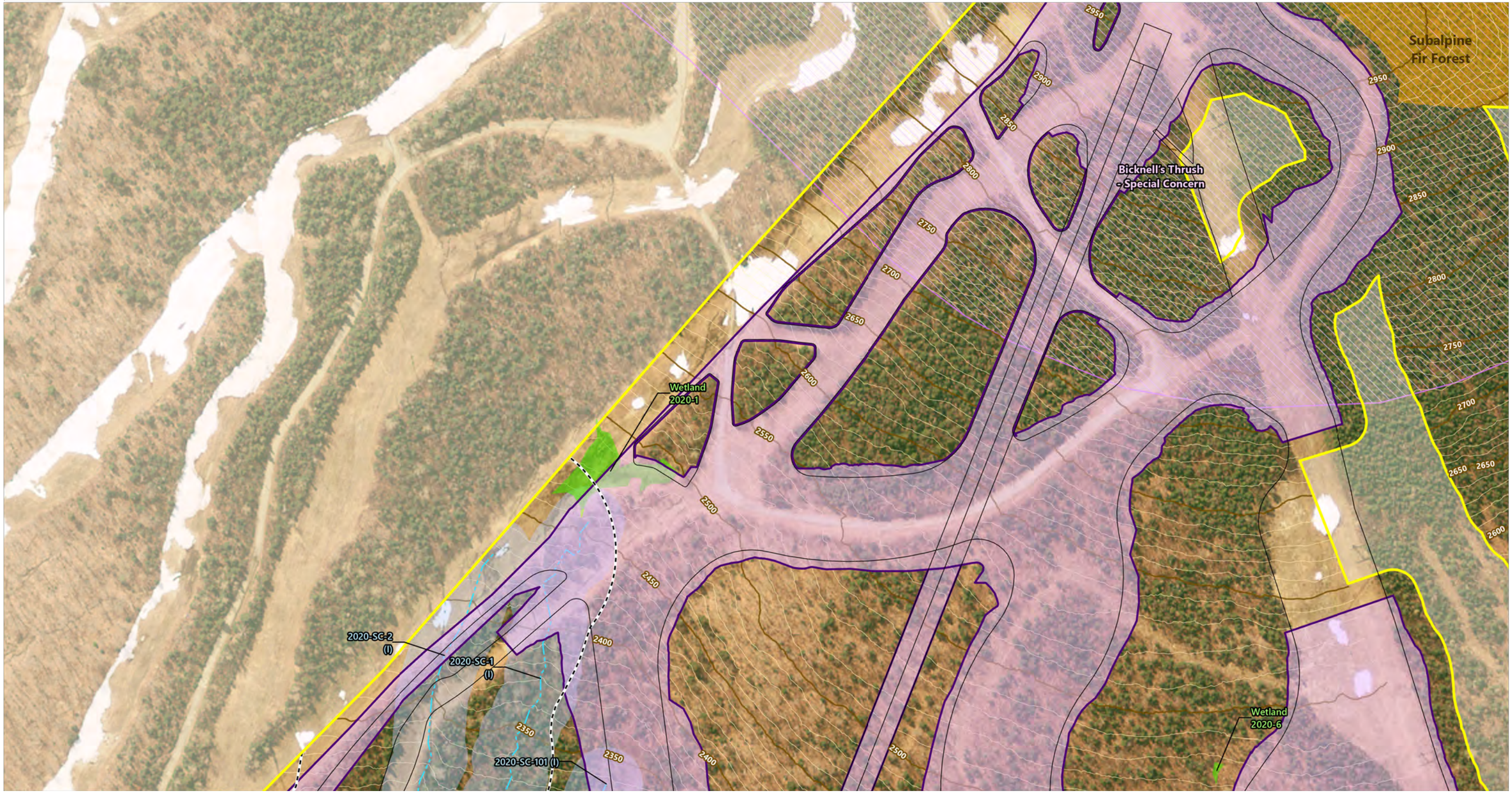

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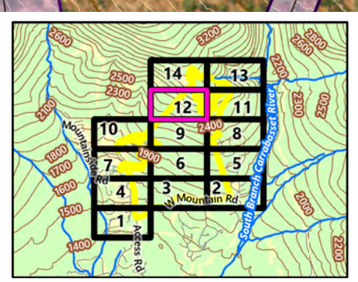

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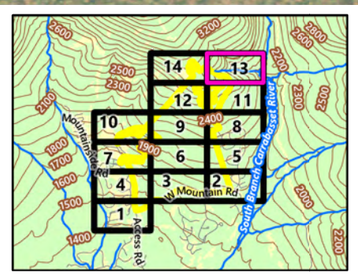

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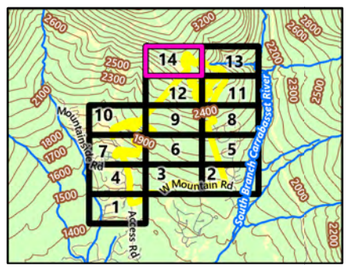

Sugarloaf West Mountain

Carrabassett Valley, Maine

VHB's field natural resource assessments conducted on various dates: vernal pools between 5/19/20-6/12/20 (Keszey/Jackman); wetland/waters between 6/8/20-6/26/20 (Keszey/Jackman/Scott/Maines); RTE plant survey 5/19/20-6/26/20 and 8/9/20-8/10/20 (Fenner, Keszey, Jackman)

Sources:
Background Imagery by Maine Geolibrary (Collected in 2016)
IFW (Maine Dept. of Inland Fisheries and Wildlife - Web Mapping Service)
MEGIS (Maine Office of Geographic Information Systems - 2000)
Persons (Habitat Assessment by Trevor B. Persons - 11/24/20)
SMC (Sugarloaf Mountain Corp. - Concept Plans dated Nov. 2019)
USDA (U.S. Department of Agriculture - 2019)
VHB - 2020-2021

Natural Resources
Sheet 14 of 14

APPENDIX 6

CORRESPONDENCE ON VERNAL POOLS

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: 2020-VP-1 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, SHale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☑ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located on fist turn of Bucksaw lane in roadside excavation at end of ditched channel drains into woods.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.316864 Latitude/Northing: 45.056488

Coordinate system: WGS84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/20/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☐ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☑ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☑ Dug pond or borrow pit
- ☑ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ◉ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Excavated area adjacent to road and ditch

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ◉ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ◉ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ◉ ft Length: 15 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ◉ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☐ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ◉ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	13	8		3	3		F/M	A/H			100			3	
Spotted Salamander	3	7		3	3		F	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis in man made ditch excavation substrate gravel road material and organic matter cattails and carex vegetation

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 1 Overview

Figure 2: Vernal Pool 1- Wood Frog

Figure 3: Vernal Pool 1- Spotted Salamander

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are <u>required</u> for pool registration.**
- **<u>Clear photographs</u> of a) the pool AND b) the indicators (one example of each species egg mass) are <u>required</u> for all observers.**

Observer's Pool ID: 2020-VP-2 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, Shale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☑ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located in woods road skidder rut in large softwood swamp located below the mid mountain cut over trail between Bucksaw road and the West Mountain Lift.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.326089 Latitude/Northing: 45.055872

Coordinate system: WGS 84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/20/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☑ Mostly unvegetated pool
- ☑ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ◉ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Skidder rut in old woods road

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ◉ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: ◉ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ◉ ft Length: 2 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ◉ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☐ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ◉ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	3	3		3	3		F	A							
Spotted Salamander		1			3			M							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis in skidder rut in dip shallow soils to bedrock

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 2 Overview

Figure 2: Vernal Pool 2- Spotted Salamander

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are <u>required</u> for pool registration.**
- **<u>Clear photographs</u> of a) the pool AND b) the indicators (one example of each species egg mass) are <u>required</u> for all observers.**

Observer's Pool ID: 2020-VP-3 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, Shale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☑ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located in large softwood swamp located just below mid mountain cut over trail. VP is on the west side of the main skid road through softwood cut. Area is a slight forested depression with spruce cedar and fir overstory.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.325837 Latitude/Northing: 45.056374

Coordinate system: WGS 84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/20/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☑ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ◉ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Unclear if area was impacted by cutting of the softwood swamp shallow depression with shallow soils adjacent to main woods road.

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ◉ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: ◉ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 10 ○ m ◉ ft Length: 15 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ◉ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☑ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ◉ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	5	5		3	3		F	A/H			50			3	
Spotted Salamander	4	8			3		F	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis shallow soils to bedrock slight depression holds maximum 5" of water before discharge. Softwood cover over most of pool cornus sp growing adjacent, in pool vegetation consisting of wetland graminoides and moss.

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 3 Overview

Figure 2: Vernal Pool 3- Spotted Salamander

Figure 3: Vernal Pool 3- Wood Frog

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are <u>required</u> for pool registration.**
- **<u>Clear photographs</u> of a) the pool AND b) the indicators (one example of each species egg mass) are <u>required</u> for all observers.**

Observer's Pool ID: 2020-VP-4 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, Shale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☑ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located in woods road skidder rut 1250' due east from the end of the West Mountain Lift access path (off Riverside Dr and Sandy River Circle intersect). Below VHB mapped Wetland identified as 2020-12

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.32771 Latitude/Northing: 45.056631

Coordinate system: WGS 84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/21/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- (●) Isolated depression
- ( ) Floodplain depression
- ( ) Pool associated with larger wetland complex
- ( ) Other: _____

■ Check all wetland types that best apply to this pool:

- [ ] Forested swamp
- [ ] Shrub swamp
- [ ] Peatland (fen or bog)
- [ ] Emergent marsh
- [ ] Wet meadow
- [ ] Lake or pond cove
- [ ] Abandoned beaver flowage
- [ ] Active beaver flowage
- [ ] Slow stream
- [ ] Floodplain
- [x] Mostly unvegetated pool
- [x] ATV or skidder rut
- [ ] Dug pond or borrow pit
- [ ] Roadside ditch
- [ ] Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ( ) Natural ( ) Natural-Modified (●) Unnatural ( ) Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Skidder rut in old woods road

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ( ) Permanent
- ( ) Semi-permanent (drying partially in all years and completely in drought years)
- (●) Ephemeral (drying out completely in most years)
- ( ) Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: (●) 0-12" (0-1 ft.) ( ) 12-36" (1-3 ft.) ( ) 36-60" (3-5 ft.) ( ) >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 5 ( ) m (●) ft Length: 2 ( ) m (●) ft

■ Predominate substrate in order of increasing hydroperiod:

- (●) Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ( ) Mineral soil (sphagnum moss present)
- ( ) Organic matter (peat/muck) shallow or restricted to deepest portion
- ( ) Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- [ ] Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- [ ] Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- [ ] Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- [ ] Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- [ ] Sphagnum moss (anchored or suspended)
- [ ] Wet site ferns (e.g. royal fern, marsh fern)
- [ ] Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- [x] Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- [ ] Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- [ ] Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- [ ] No vegetation in pool

■ Faunal indicators (check all that apply):

- [ ] Fish
- [ ] Bullfrog or Green Frog tadpoles
- [ ] Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- (●) No inlet or outlet
- ( ) Intermittent inlet or outlet
- ( ) Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ( ) Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	3	3		3	3		F	A							
Spotted Salamander		2			3			M							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis in skidder rut in dip shallow soils to bedrock. Date of survey outside wood frog survey window for the region due to deep snow conditions on upper mountain surveys were pushed back.

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 4 Overview

Figure 2: Vernal Pool 4 – Spotted Salamander

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: 2020-VP-5 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, Shale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located in large softwood swamp located just below mid mountain cut over trail. VP in the main skid road through softwood cut.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.326004 Latitude/Northing: 45.055479

Coordinate system: WGS84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/20/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☑ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ◉ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Located in 2 skidder ruts in old woods road located 10' apart

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ◉ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: ◉ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 3 ○ m ◉ ft Length: 15 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ◉ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☑ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ◉ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/21/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog															
Spotted Salamander	2	2		3	3		F	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis shallow soils

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 5 Overview

Figure 2: Vernal Pool 5- Spotted Salamander

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are <u>required</u> for pool registration.**
- **<u>Clear photographs</u> of a) the pool AND b) the indicators (one example of each species egg mass) are <u>required</u> for all observers.**

Observer's Pool ID: 2020-VP-6 **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: Mitchell Jackman

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ◉ other Sean Hale, Shale@vhb.com 207-536-2588

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ◉ Yes

c. Project Name: Sugarloaf West Mountain Development

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Karl Strand Phone: 207-237-6903

Street Address: 5092 Access Rd City: Carrabassett Valley State: ME Zip: 04947

c. ☑ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Carrabassett Valley

Brief site directions to the pool (using mapped landmarks):

Located in woods road skidder rut 1250' due east from the end of the West Mountain Lift access path (off Riverside Dr and Sandy River Circle intersect). Below VHB mapped Wetland identified as 2020-12 above VP-4

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70.327772 Latitude/Northing: 45.056149

Coordinate system: WGS 84

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): 5/21/20 6/8/20

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- (●) Isolated depression
- ( ) Floodplain depression
- ( ) Pool associated with larger wetland complex
- ( ) Other: _____

■ Check all wetland types that best apply to this pool:

- [ ] Forested swamp
- [ ] Shrub swamp
- [ ] Peatland (fen or bog)
- [ ] Emergent marsh
- [ ] Wet meadow
- [ ] Lake or pond cove
- [ ] Abandoned beaver flowage
- [ ] Active beaver flowage
- [ ] Slow stream
- [ ] Floodplain
- [x] Mostly unvegetated pool
- [x] ATV or skidder rut
- [ ] Dug pond or borrow pit
- [ ] Roadside ditch
- [ ] Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ( ) Natural ( ) Natural-Modified (●) Unnatural ( ) Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Skidder rut in old woods road

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ( ) Permanent
- ( ) Semi-permanent (drying partially in all years and completely in drought years)
- (●) Ephemeral (drying out completely in most years)
- ( ) Unknown

Explain:

Dry later in year during wetland delineation site visit

■ Maximum depth at survey: (●) 0-12" (0-1 ft.) ( ) 12-36" (1-3 ft.) ( ) 36-60" (3-5 ft.) ( ) >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 6 ( ) m (●) ft Length: 3 ( ) m (●) ft

■ Predominate substrate in order of increasing hydroperiod:

- (●) Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ( ) Mineral soil (sphagnum moss present)
- ( ) Organic matter (peat/muck) shallow or restricted to deepest portion
- ( ) Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- [ ] Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- [ ] Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- [ ] Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- [ ] Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- [ ] Sphagnum moss (anchored or suspended)
- [ ] Wet site ferns (e.g. royal fern, marsh fern)
- [ ] Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- [x] Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- [ ] Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- [ ] Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- [ ] No vegetation in pool

■ Faunal indicators (check all that apply):

- [ ] Fish
- [ ] Bullfrog or Green Frog tadpoles
- [ ] Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- (●) No inlet or outlet
- ( ) Intermittent inlet or outlet
- ( ) Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ( ) Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020 6/8/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog															
Spotted Salamander	3	5		3	3		F	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Mosquito larvae and log cabin caddis in skidder rut in dip shallow soils to bedrock

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Sugarloaf West Mountain
Maine Vernal Pool Form Photographs
May/June 2020

Figure 1: Vernal Pool 6 Overview

Figure 2: Vernal Pool 6- Spotted Salamander

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNER

MELANIE LOYZIM
ACTING COMMISSIONER

February 25, 2021

Sean Hale
VHB
500 Southborough Drive, Suite 105B
South Portland, ME 04106

Re: Vernal Pool Significance Determination, Pool ID #s 4236, 4237, 4234, 4235, 4238, 4239– Carrabassett Valley

Dear Sean Hale:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

Based on your field surveys, it has been determined that the vernal pools identified above on the property of Karl Strand are NOT SIGNIFICANT because either: 1. the features do not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pools do not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pools are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your surveys.

I want to also advise you that the pool areas on the property can be considered freshwater wetlands and therefore direct pool alterations may require permitting under the NRPA.

The Department will notify the landowner of the pool status under separate cover. If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Nicholas D. Livesay, Director
Bureau of Land Resources

cc. town file

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, February 25, 2021

IFW's Pool ID: 4234 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 396313 E, 4990069 N
Observer's ID: 2020-VP-1
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and spotted salamanders but does not meet egg mass criteria. Pool also appears to be of unnatural origin (man made ditch).

IFW's Pool ID: 4235 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395586 E, 4990012 N
Observer's ID: 2020-VP-2
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for wood frogs and spotted salamander but does not meet egg mass criteria. Pool also may be on unnatural origin (old skidder rut).

IFW's Pool ID: 4236 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395606 E, 4990068 N
Observer's ID: 2020-VP-3
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Pool provides some habitat for wood frogs and spotted salamander but does not meet egg mass criteria.

IFW's Pool ID: 4237 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395459 E, 4990099 N
Observer's ID: 2020-VP-4
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Pool provides some habitat for wood frogs and spotted salamanders but does not meet egg mass criteria. Pool may also be of unnatural origin (skidder rut) but unclear from photo provided.

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, February 25, 2021

IFW's Pool ID: 4238 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395591 E, 4989969 N
Observer's ID: 2020-VP-5
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/21/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for spotted salamander but does not meet egg mass criteria. Pool also appears to be of unnatural origin (old skidder rut).

IFW's Pool ID: 4239 Twp: Carrabassett Valley
UTM Coordinates of Pool Center: 395453 E, 4990045 N
Observer's ID: 2020-VP-6
ProjectType: Sugarloaf West Mountain Development

Landowner:	Karl Strand	Contact:	Sean Hale - VHB
	5092 Access Road		500 Southborough Drive, Suite 105B
	Carrabassett Valley, ME 04947		South Portland, ME 04106
	(207) 237-6903		(207) 536-2588 shale@vhb.com

Survey Date: 5/20/2020 Additional Survey Dates: 06/08/2020

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the vernal pool definition

IFW Comments: Pool provides some habitat for spotted salamander but does not meet egg mass criteria. Pool also appears to be unnatural in origin (skidder rut).

ATTACHMENT 2. ALTERNATIVES ANALYSIS

Under NRPA rules in Chapter 310, an applicant for a permit to impact protected natural resources must avoid and minimize impacts to protected natural resources to the greatest extent practicable. In order to achieve the Project purpose and need, and due to site constraints including sensitive natural resources and the required proximity to existing ski lifts and transportation and utility infrastructure, the Project cannot be located entirely in upland areas. The Project represents infill development within existing established trails and lift services and leverages existing infrastructure to support the Project while minimizing impacts associated with extension of new infrastructure into currently undeveloped areas. Wetland impacts have been minimized to the greatest extent practicable.

Proposed wetland impacts consist of approximately 164,408 square feet (3.77 acres) of permanent wetland fill. Some of this fill is related to cutting and grubbing forested wetland to allow for the burial of utilities and conversion of a forested wetland to a meadow for a ski trail. The specific wetland and waterways impacted are provided in Appendix 1 of this document.

Boyne Resorts (Applicant) investigated several alternatives to avoid or minimize the amount of proposed freshwater wetland alteration, resulting in the impacts described above. The proposed Project layout included with this application package is the result of a multi-year integrated design team approach that encompasses input from Boyne Resort in-house experts in trail design and mountain operations as well as ski real estate specialists, VHBs mountain planners, civil engineers, ecologist and natural resource specialists, and Main-Land Development Consultant's experience with civil engineering and infrastructure design.

In addition to the integrated design team approach described above, the Applicant participated in several regulatory agency meetings to review impact avoidance and mitigation strategies to be used for the Project. These meetings are summarized below

- Introductory onsite interagency meeting with DEP, IFW, Corps – **November 12, 2020**
- Site visit with Trevor Persons and MNAP to review salamander, mayfly, thrush, sub-alpine fir habitat – **November 20, 2020**
- Working Meeting with DEP (for guidance on buffer avoidance strategies, general avoidance and minimization of habitat & wetland impacts) – **January 27,2021**
- DEP Pre-Application Meeting #1 (Standard SLODA Pre-App) – **March 26, 2021**
- VHB/ IFW call to obtain input on thrush, mayfly/salamander prior to 2nd Pre-app meeting – **April 5, 2021**
- DEP Pre-Application Meeting #2 (Natural Resources and Wildlife Focused) to review natural resource issues/permitting – **April 7, 2021**
- Site Law/NRPA Public Information Meeting – **July 29, 2021**
- Site Law/NRPA Pre-Submission Meeting – Scheduled for **September 9, 2021**

The resulting Project layout optimizes skier experience, successful long-term operation of trail features, and avoidance and minimization of impacts to steams, wetlands and wildlife. A description of how these various design considerations have shaped the Project to achieve the least environmentally impactful practicable alternative is described in more detail in the sections below.

2.1 Project Purpose and Need

Project Objectives: The West Mountain Project is a key component of Sugarloaf's 2030 Plan published last year and represents a major enhancement for Sugarloaf. The purpose of the Project is to employ a comprehensive master planning approach to further develop the western side of Sugarloaf Mountain to include additional ski trails for all abilities, skier services infrastructure, roads, bridges, parking lots, and housing consisting of condominiums, duplex-style townhomes and single-family lots. The Project has several key goals:

- **Improve Sugarloaf's trail mix by providing additional intermediate and beginner terrain.** This supports entry level and multigenerational use of the mountain ski terrain, which is critical to the future of the resort and also serves to and avoid skiers attempting to ski on terrain over their ability, which is a safety issue.
- **Protection against wind holds.** On average, Sugarloaf experiences 7 days/season of ski terrain shutdown for wind holds. Wind holds require partial shutdown of lifts 15 days +/- year, which can negatively impact skier experience. The proposed lift location and design will provide lift access to ski terrain with much less probability of wind hold. This will improve the skier experience and operational efficiency.
- **Provide additional parking and convenient lift access for guests.** In recent years, growth of skier visits has created parking issues with 250+ cars parking on the main access road 6-8 days per year, complicating shuttle services. The Town of Carrabassett Valley has expressed concern about the current parking situation with regard to congestion and safety, and the construction of additional parking and trail access and ticketing options will address those concerns.
- **Four season use.** Providing four-season activities is critical for success of ski areas moving forward. The addition of the lift will be transformative for summers at Sugarloaf and would allow the utilization of its mid-mountain Bullwinkle's Restaurant facility for weddings, concerts, and food & beverage service.
- **Increase skier visits by providing additional single family residential housing on site.**
- **Increase the bed base with new townhomes and condominiums.** Sugarloaf is currently experiencing a shortage of housing units available at the mountain. This Project would also assist in funding the new lift, 140 acres of new ski terrain, and snowmaking that are the core of this Project.
- **Develop the Project while being respectful of the environment and leaving hundreds of acres in the Project area undisturbed.** The Project has undertaken significant efforts to shift ski trails and terrain out of sensitive areas to the extent feasible in order to preserve stream buffers and wildlife habitat.

The housing portion of the Project consists of the following:

- 54 single family lots;

- 4 condominium buildings, each totaling 22 to 28 units, depending on interior configuration for a total of 88 to 112 units;
- 22 duplex style townhomes (44 units); and
- Associated access roadways, parking, and utilities and stormwater management facilities.

The ski terrain portion of the Project consists of the following:

- Approximately 140 acres of new beginner and intermediate ski terrain;
- Installation of a new high-speed lift;
- Reduced length of the existing West Mountain lift by approximately 2,700 linear feet and provide new top unload area in the vicinity of the existing mid station;
- A skier services building of 1500+/- square feet, including 24 restaurant seats, small kitchen & bar, small lodge seating area and an office/ticket sales; and
- Three new parking lots including approximately 366 spaces.

Project Benefits: The Project will have substantial local and regional benefits. In terms of recreation, the West Mountain Expansion will expand Sugarloaf's beginner and intermediate ski and snow board terrain and will greatly alleviate traffic congestion at the existing lift facilities by shifting significant numbers of riders to this new area. In addition, the proposed lift will open the mountain up to summer recreational opportunities. The new lift will allow summer guests to ride to Bullwinkle Bistro, opening the venue up to summer business including weddings and conferences. This enhancement is an important consideration as ski resorts across the country are finding it beneficial to expand their market base beyond the traditional skier.

The increase in the number of homes will help meet the demand for new inventory in the local housing market. These lodgings will also allow more guests to experience the region throughout the year. This increase in visitors will enhance tourism, an important source of revenue in the region. In addition to the temporary construction jobs, the facility will create additional permanent jobs associated with tourism and the maintenance of these new structures.

The proposed improvements will increase the Town of Carrabassett's tax base. As with the increase in lodging, the enhanced recreational facilities will require temporary construction jobs as well as long-term operations and maintenance jobs.

2.2 **Project Siting and Alternatives Analysis**

Initial planning for the Project began in 2019 as part of the development of Sugarloaf's 2030 Plan issued in 2020. Key components of this plan included enhancing the on-mountain experience and resort facilities, promoting new skiers to the sport by providing expanded beginner terrain, and creating year-round recreational opportunities. The initial location of the facilities was determined based on a feasibility analysis which considered preliminary environmental, design and engineering considerations.

The Applicant initiated consultations with resource agencies in early 2020 in order to identify potential environmental constraints. Field surveys of the entire Project area were completed throughout 2020 and into 2021 to determine the presence / absence of sensitive resources and provide base information for use during project design and permitting. The Applicant conducted an iterative alternative analyses process in order to avoid and minimize impacts on identified natural resources while ensuring that the Project design needs were being met. The analysis of alternatives involved reviewing the following design criteria, which are further discussed below:

- Utilizing, managing, or expanding one or more other sites that would avoid resource impacts;
- Reducing the size, scope, configuration, or density of the activity as proposed, thereby avoiding or minimizing resource impacts; and
- Developing alternative designs that avoid or lessen resource impacts.

Utilizing, managing or expanding one or more other sites that would avoid resource impacts

As evidenced by the Project purpose, the proposed facilities could only be located on the West Mountain at Sugarloaf Resort. The Project represents infill development within existing established trails and lift services and leverages existing water, sewer, and snowmaking infrastructure to support the Project while minimizing impacts associated with extension of new infrastructure into currently undeveloped areas. The new lift creates a direct connection to an existing restaurant and all of the proposed new trails need to connect to this new access point as well as the new left bottom terminal. Similarly, the proposed new buildings and parking facilities were designed to take advantage of or support the new ski facilities. Existing terrain is at a slope that is similar to that utilized for beginner ski trails (8% -25%), which are key component of the Project, thus minimizing impacts associated with extensive trail grading. Therefore, no other site would be feasible that meets the Project's purpose.

Reducing the size, scope, configuration or density of the activity as proposed, thereby avoiding or minimizing resource impacts

The Project's goal was to avoid all wetlands, streams, vernal pools, and their appropriate buffers to the greatest extent feasible, while still achieving the Project need. In early 2020, the Applicant conducted extensive fieldwork to identify and map natural resources within the Study Area. Concurrently with these studies, Project designers reviewed topographic, soil, and other constraint mapping to determine onsite constructability. In fall of 2020, and informed by the recent natural resource delineations, the Applicant's internal design engineers conducted multiple onsite meetings with VHBs mountain planners and engineers as part of an effort to optimize trail design while eliminating natural resource impacts. The goal of these efforts was to identify sufficient suitable land (*i.e.,* land with minimal natural resource or constructability constraints) to be used for the Project.

Land uses and land cover changes within the Project were considered. Ski terrain which is mowed only annually and features dense vegetative cover and simar runoff characteristics to forested terrain is situated adjacent to the larger streams and wetlands where more sensitive wildlife habitat exists. Remaining portions of the Project where stream and wetland features are less extensive have been utilized for roads and real estate development.

Ski Lift Design

The design of the ski lift must incorporate engineering and safety factors. Ski lifts need to be constructed so as to promote visitor safety, allow for maintenance activities, and meet emergency medical evacuation requirements as developed by the National Ski Area Association and established in ANSI B77.1-2017 for Passenger Ropeways.

Ski Trail Design

Ski trails design requires careful planning of ski trail grades, load and unload zones, site lines, radii and fall lines along all trails, and merging of trail traffic for trails of differing rider experience and ski speed. Table 1 presents these requirements at a high level of analysis. These components are particularly important because the Project involves trails that would be utilized by beginner and intermediate skilled users. Users must have access to trails consistent with their skill level in order to avoid unsafe passing, queuing, and pressure from skiers behind. Novice skiers are unlikely to revisit a trail system that presents a greater risk for skier conflict and distracts the skier's focus, both of which discourage a welcoming environment to learn the sport.

Table 1. Ski Trail Design Requirements

Trail I.D.	Skill Level	Grade	Description
Green	Beginner	8% - 25%	Wide, groomed trails, gentle slopes
Blue	Intermediate	25% - 40%	Groomed surface, moderate slopes
Black	Advanced	40% +	More difficult terrain, partial grooming

While the designers looked for ways to avoid wetlands, in some cases the existing conditions required impacts. In these situations, the impacts were minimized to the extent possible while still addressing engineering and safety concerns.

As previously noted, the buildings and parking structures by necessity needed to be located in close proximity to the ski trails and to support visitor use of these new facilities. As shown in Attachment 1 of this application, the lower portion of the West Mountain has significant wetland coverage and, while designers have avoided and minimized impacts to these features, there were areas where impacts were unavoidable.

Real Estate and Roadway Infrastructure

A significant portion of the proposed ski development construction (e.g. lift, new trails) is expected to be paid for by the sale of the homes included in this Project. Any significant decrease in the number of homes would jeopardize the financial model for the Project. Likewise, the expected value from the sale of these residences is based on the proposed enhancements to the West Mountain. Based on these factors, the Project cannot be reduced in scope or have components extracted without making it financially infeasible and therefore unable to meet its need.

From a design perspective Roadways serving the proposed housing must meet geometrical requirements of the Town of Carrabassett Valley summarized in Table 2 below.

Table 2. Roadway Design Requirements

Roadway Type	Min. Width incl. Shoulder	Maximum Allowable Grade	Minimum Curve Radius	Min. between reverse curves
Collector	30’	12%	200	200
Residential Collector	26’	12%	200	100
Residential Access	22’	12%	150	50

In addition to these criteria are requirements regarding profile grades and minimum distances at intersection approaches. The existing landform in the area of the Project has slopes ranging from 10-25% and so roadway must feature switchbacks that meet the municipal criteria outlined above. The three proposed ski bridges, where roadways and ski trails cross, represent significant engineering and design challenges where approach grades for both road and trail must anticipate the crossing several hundred feet on either side of the crossing in order to ensure both driver and skier safety through the feature.

Implementing a successful trail and road network involves several interrelated design components. The design parameters included here are provided to reinforce that any single trail or roadway feature such as a curve or culvert crossing must be reviewed with the context of the entire Project. The Project as a whole was laid out in a manner that avoided resource impacts to the extent feasible and minimized unavoidable impacts. Accordingly, and in consideration of the complexities of trail layout, further refinement to even a single feature may result in additional resource impacts elsewhere to accommodate the change.

Developing alternative activity designs that avoid or lessen resource impacts

The Project has been designed to avoid and minimize wetland impacts to the maximum extent practicable. Proposed ski infrastructure, buildings, and roads have been purposely sited outside of wetland areas to the greatest extent, while still meeting resort expansion goals of the Project. The extent of clearing is limited to only what is necessary to construct the housing and ski infrastructure. The Project also seeks to minimize redundant trails as much as possible while providing dedicated trails for users of different skill levels.

As referenced above the Project sought early input from MDIFW, MNAP, and MDEP during project development. Figures 1 to 5 below and the accompanying summaries provide an overview of the major changes and reduction in natural resource impacts resulting from this consultation process. From left to right, the plan excerpt below depicts the original project design, and the design progression as modified in response to regulatory agency comments, and as currently proposed.

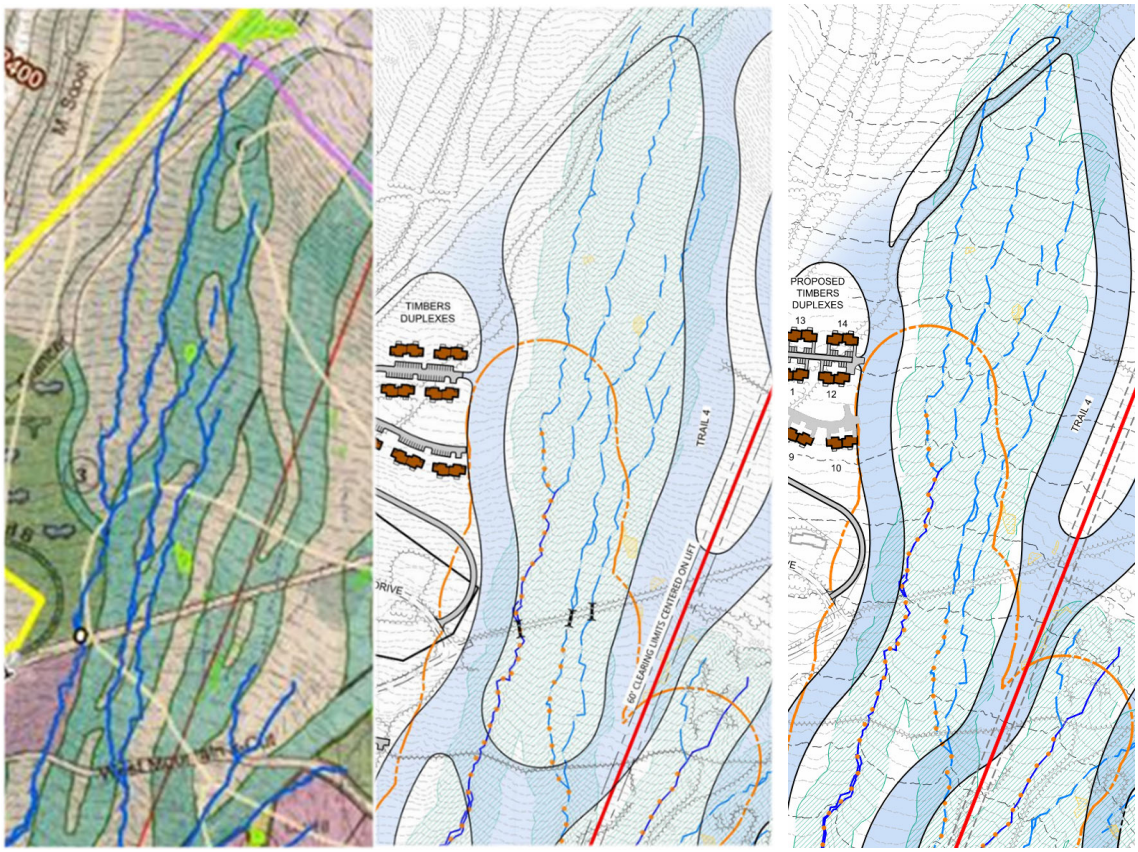

Figure 1 - Upper Timbers Trail and Trail #4:

(left to right). Trails moved out of stream buffers, reduced parking areas at upper timbers, perennial stream crossing eliminated, Trail 4 narrowed and moved out of upper stream channel

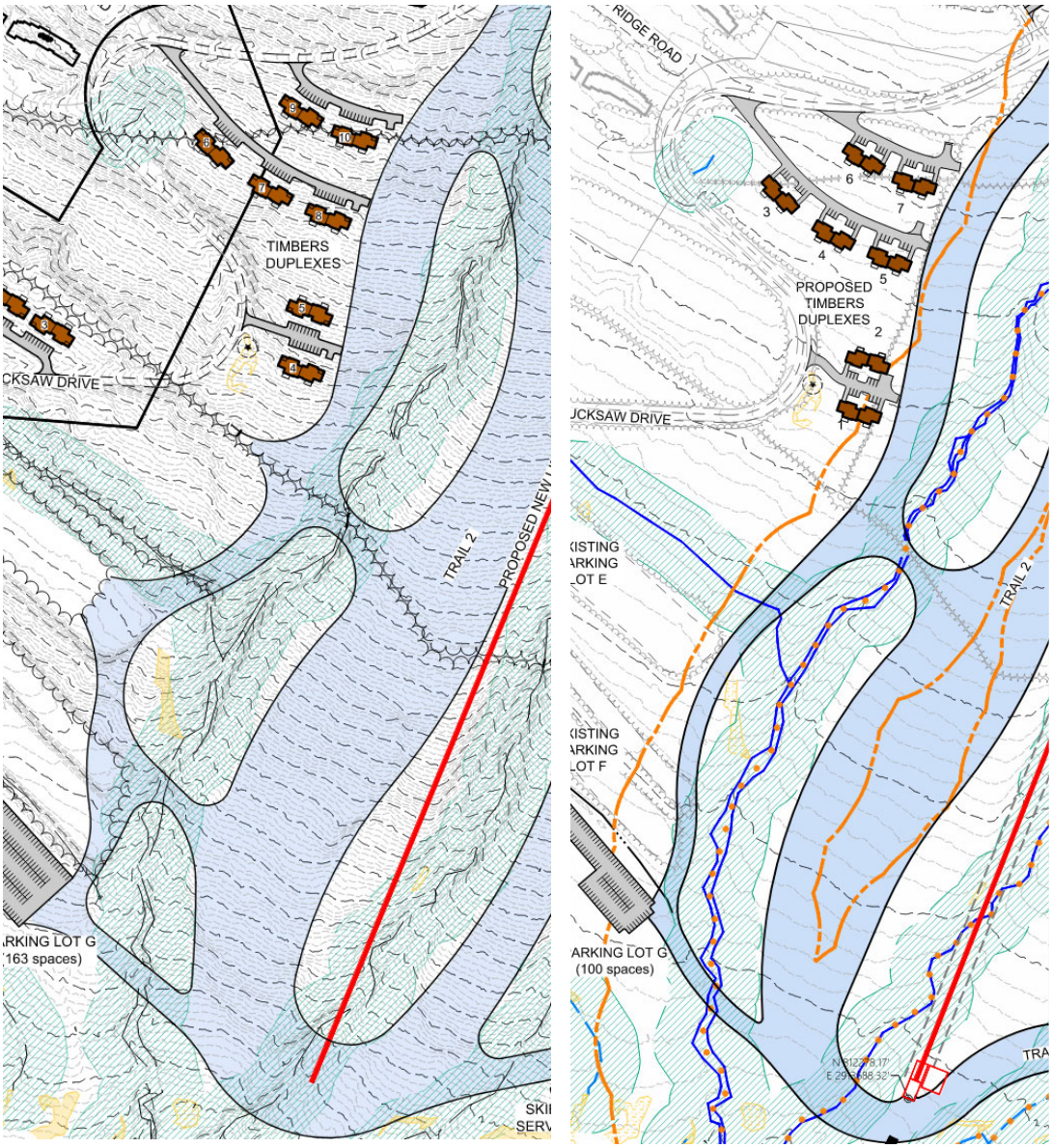

Figure 2 - Lower Timbers Trail and Trail #2:

(left to right). Perennial stream crossing eliminated. Timbers trail narrowed, Parking Lot G reduced in size. Trail width at bottom terminal reduced significantly. Trail from Lot G shifted to avoid a localized wider stream channel.

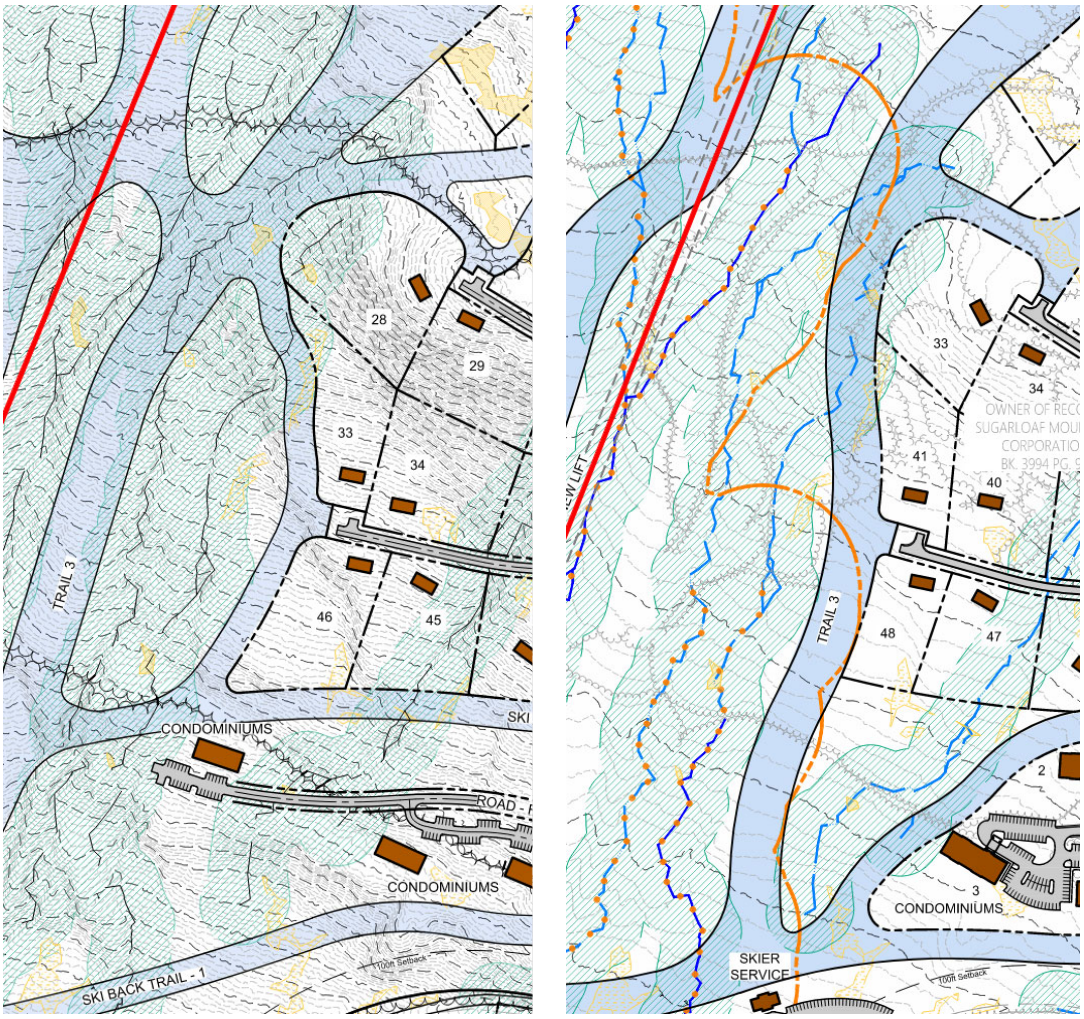

Figure 3 - Trail # 3

(left to right). Multiple stream crossings eliminated. Trail eliminated. Trail 3 relocated outside of mayfly/salamander buffer to extent feasible. Upper ski back trail intersection reduced in area

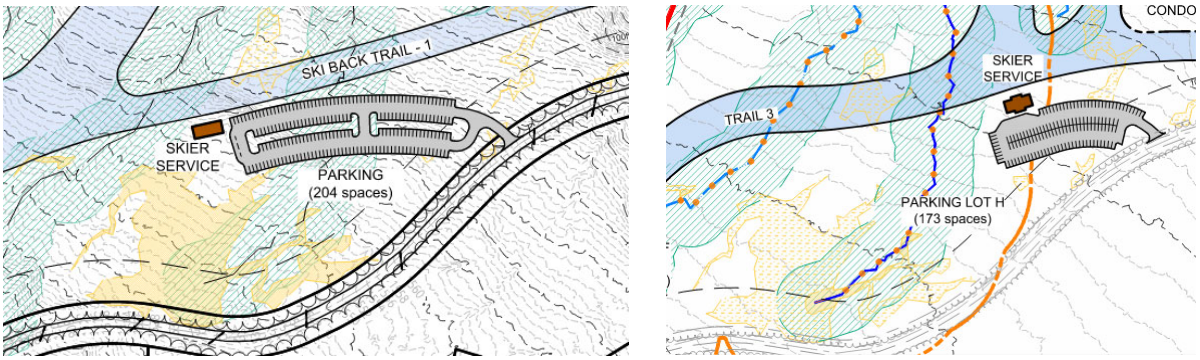

Figure 4 -Skier Services Parking Lot Area:

(left to right) This location saw many revisions with the final proposed facility location resulting in elimination of a perennial stream crossing, reduce wetland impacts, and reduced stream and wildlife buffer impacts.

Figure 5 - Top Terminal Area:

(left to right) This location underwent several iterations to reduce clearing and impacts associated with trail construction and grading within Bicknell's Thrush Habitat and Subalpine Fir Forest. Trail 8 width has been reduced; two proposed trails eliminated. Existing West Mountain lift line allowed to be allowed revert back to forest vegetation.

Other Avoidance and Minimization Techniques

Existing access roads have been utilized to the extent possible. In addition, new roads will be constructed at the minimum allowable width and gradient, as described above, limiting the amount of wetland fill required for accessing housing, skier services buildings, and parking lots. Access roads will be paved and will consist of asphalt surfaces with appropriate stormwater management controls.

A stormwater management system will be incorporated into the Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the proposed design.

2.3 **Construction Phase Impact Minimization**

The Applicant has developed a robust erosion and sedimentation control plan and stormwater management procedures designed to reduce threats to natural resources and offsite properties from runoff and stormwater. The Project will be constructed in Phases over a period of approximately 5-7 years. Earth disturbance within the proposed ski trail areas will be limited to approximately 200 ft length of trail at any one time. These measures are described in the Site Law application Section 12 – Stormwater Management and Attachment 5 – Erosion Control, of this application. Construction work will begin with establishing base lines and demarcating the Project limit of work. Following installation of temporary erosion and sediment control measures such as silt fence and erosion control mix (ECM), the site will be cleared and grubbed as necessary. The design of erosion and sedimentation control measures will be based on the Maine Erosion & Sediment Control Handbook for Construction: Best Management Practices (BMPs).

Conclusion

The West Mountain Project is the result of collaborative and coordinated effort to provide expanded housing and outdoor recreational opportunities and appreciation of Maine's natural environment, while minimizing impacts to existing valuable natural resources.

APPENDIX 1

WETLANDS IMPACT SUMMARY

SUMMARY OF WETLAND IMPACTS

Wetland ID	Cowardin Classification	Fill Impacts (square feet)	Vegetation Alteration (square feet)	Notes
2020-407	PEM	4318		
2020-117	PFO		421	Clearing
2020-1	PEM	7354		
2020-101	PFO	1066		
2020-102	PFO	2065		
2020-11	PEM	491		
2020-116	PFO	400		
2020-119	PFO	1429		
2020-12	PEM	10441		
2020-401	PEM	532		
2020-121	PFO	4154		
2020-123	PEM	2192		
2020-124	PEM	1674		
2020-402	PEM	2949		
2020-403	PFO	1042		Utility Line
2020-126	PEM	366		
2020-127	PFO	3154		
2020-13	PEM	58		
2020-130	PFO	560		
2020-404	PFO	5693		
2020-404	PFO	7188		Utility Line
2020-16	PFO	926		
2020-19	PEM	1068		
2020-20	PEM	251		
2020-200	PFO	812		
2020-201	PEM	731		
2020-202	PFO	2464		
2020-203	PFO	1201		
2020-204	PEM	85		
2020-208	PFO	3183		
2020-209	PEM	676		
2020-21	PEM	4747		
2020-226	PFO	4496		
2020-227	PFO	1051		
2020-411	PEM	1794		
2020-412	PFO	264		
2020-30	PEM	11740		
2020-300	PFO	3666		
2020-302	PEM	837		
2020-31	PEM	650		
2020-32	PFO	10304		
2020-33	PFO	615		

SUMMARY OF WETLAND IMPACTS

Wetland ID	Cowardin Classification	Fill Impacts (square feet)	Vegetation Alteration (square feet)	Notes
2020-34	PFO	201		
2020-35	PFO	27173		
2020-37	PEM	1298		
2020-38	PEM	4986		
2020-39	PEM	751		
2020-42	PFO	1174		
2020-43	PEM	450		
2020-44	PEM	6270		
2020-45	PFO	70		
2020-417	PEM	815		
2020-48	PFO		2066	Clearing
2020-5	PEM	420		
2020-52	PEM	1645		
2020-419	PEM	0		
2020-53	PEM	4790		
2020-7	PEM	713		
2020-420	PEM	824		
	SUMMARY:	**160266**	**2486**	
WETLANDS OF SPECIAL SIGNIFICANCE				
2020-1	PEM	30		
2020-12	PEM	2505		
2020-202	PFO	14		
2020-204	PEM	315		
2020-21	PEM	365		
2020-411	PEM	10		
2020-300	PFO	231		
2020-35	PFO	17		
2020-40	PEM	5		
2020-416	PEM	7		
2020-43	PEM	637		
2020-51	PEM	6		
	SUMMARY:	**4143**	**0**	
	OVERALL:	**164409**	**2486**	

STREAM CROSSING TABLE

Stream Crossing	Plan Sheet #	Stream ID	Stream Type	Temporary Impacts Below OHW (SF)	Permanent Impacts Below OHW (SF)	Bank Full Width [BFW] (FT)	Bottom Width [BW] (FT)	Bank Full Height [BFH] (FT)	Structure Width (FT)	Structure Height (FT)	Structure Length (FT) [Nearest 0.5']	Openness Ratio**	Structure Type	New or Existing Structure?
1	C2.01	2020-TOB-1a 2020-TOB-1b	Perennial	1262.00	4894.25	20*	12	2	24.00	12.00	102.5	2.81	Single Radius Arch	New
2	C2.02	2020-SC-210	Perennial	0.00	4962.01	18	10	2	22.00	11.00	186.0	1.30	Single Radius Arch	New
3	C2.03	2020-SC-218	Intermittent	291.38	2367.62	8	4	1	10.17	2.67	167.0	0.16	Open Bottom Box	New
4	C2.04	2020-SC-22	Perennial	150.01	2555.16	7	3	2	9.00	5.00	174.5	0.26	Single Radius Arch	New
5	C2.05	2020-SC-212 2020-SC-318	Intermittent	176.13	1122.54	6	3	1	8.75	2.50	98.5	0.22	Open Bottom Box	New
6A	C2.06	2020-SC-311	Intermittent	144.41	607.54	4.5	1	1	6.00	3.20	44.5	0.43	Single Radius Arch	New
6B	C2.06	2020-SC-311	Intermittent	42.86	1774.28	6.5	3	1.5	8.00	4.20	118.5	0.28	Single Radius Arch	New
7A	C2.07	2020-SC-205	Intermittent	174.77	983.89	5	3	1	7.00	3.70	92.5	0.28	Single Radius Arch	New
7B	C2.07	2020-SC-205	Intermittent	71.40	493.14	5	3	1	7.00	3.70	66.5	0.39	Single Radius Arch	New
7C	C2.07	2020-SC-205	Intermittent	155.81	399.55	5	3	1	7.00	3.70	32.0	0.81	Single Radius Arch	New
8	C2.08	2020-SC-120	Perennial	31.98	872.25	6.5	2	1.5	8.00	4.20	64.0	0.53	Single Radius Arch	New
9	C2.09	2020-TOB-1a 2020-TOB-1b	Perennial	205.62	2124.00	9*	4	2	12.00	6.50	103.0	0.76	Single Radius Arch	New
10	C2.10	2020-SC-5 2020-SC-102	Intermittent	515.39	4464.46	9	3	1	12.00	6.50	257.0	0.30	Single Radius Arch	New
11	C2.11	2020-SC-218	Intermittent	110.04	3170.61	7	2	1	9.00	4.70	197.0	0.21	Single Radius Arch	New
12	C2.12	2020-SC-216 2020-SC-31	Intermittent	358.12	3071.59	8	2	1	10.00	5.30	100.0	0.53	Single Radius Arch	New
13	C2.13	2020-SC-202	Intermittent	36.97	652.17	5	3	1	6.00	3.20	35.5	0.54	Single Radius Arch	New

*For crossing structure sizing, the average BFW within new crossing limits was utilized

**(Structure Width x Structure Height) / (Structure Length)

ATTACHMENT 4. COMPENSATORY MITIGATION..... 4-1

4.A AVOIDANCE AND MINIMIZATION OF PROTECTED NATURAL RESOURCE IMPACTS 4-1

4.B PROTECTED NATURAL RESOURCE IMPACTS..... 4-1

4.C PROPOSED MITIGATION 4-2

4.C.1 *In Lieu Fee Compensatory Mitigation*..... *4-2*

ATTACHMENT 4. COMPENSATORY MITIGATION

4.A Avoidance and Minimization of Protected Natural Resource Impacts

Through the evaluation of project alternatives and construction implementation alternatives, the Applicant has avoided and minimized impacts to natural resources to the maximum extent practicable. As described in Attachment 2, the Applicant conducted an extensive alternatives analysis and revised and refined the Project design to identify the least environmentally damaging practicable alternative. Project objectives were weighed against natural resource impacts and design limitations to produce the Project design presented herein. The design presented in this application is the culmination of a comprehensive investigation intended to accommodate the Project purpose and need while maintaining Maine Department of Environmental Protection's (MDEP) and the U.S. Army Corps of Engineers' (USACE) policy of avoidance and minimization when projects involve impacts to natural resources.

In addition to the Project design, construction will be sequenced to limit disturbance to the extent practicable. The Project's Erosion and Sediment Control Plan (see Sections 14 of the Site Law application being submitted with this application) will be implemented to avoid unnecessary impacts to natural resources during construction through control of erosion and sedimentation. The Applicant will ensure contractor compliance with the Erosion and Sediment Control Plan and proper function of temporary control measures and site stabilization. The Applicant will also be responsible for identifying issues and supplementing the Erosion and Sediment Control Plan as necessary to maintain compliance. The implementation of these standards will further minimize and avoid impacts to natural resources during the construction phase of the Project.

4.B Protected Natural Resource Impacts

Though a robust alternatives analysis was completed that sought to avoid and minimize protected natural resource impacts, the Project will result in unavoidable impacts to wetlands. The Project design concept recommended as the preferred alternative includes approximately 180,868 square feet (4.15 acres) of wetland fill. Some of this fill is related to cutting and grubbing forested wetland to allow for the burial of utilities and conversion of a forested wetland to a meadow for a ski trail.

As part of the wetland evaluation, the Applicant completed a Functional Assessment for impacted wetlands (Attachment 3). While the wetland functions currently provided by the wetland systems within the Project site are anticipated to remain intact subsequent to Project construction, there will be localized impacts to wetland functions where permanent fill will be placed and changes in the functions provided where forested wetland is converted to wet emergent wetlands.

4.C Proposed Mitigation

4.C.1 *In Lieu Fee Compensatory Mitigation*

The Applicant proposes to use the In-Lieu Fee (ILF) Compensatory Mitigation program to offset the approximately 164,409 square feet (3.77 acres) of permanent wetland fill and the associated wetland functions and values impacts and changes. To calculate the ILF payment, the Applicant has referenced the resource compensation rates and the formula provided for impacts to wetland resources in the MDEP Fact Sheet – In Lieu Fee Compensation Program, September 1, 2020 to December 31, 2021.[1]

Wetland impacts are proposed to be compensated for at the rate of $4.28 for each square foot of wetland impact ($4.23 [Natural Resource Enhancement & Restoration Cost/ Sq. Ft.] + $0.05 [Avg. Assessed Land Value/ Sq. ft. – Franklin County]). Based on the MDEP Fact Sheet, the Applicant proposes a total ILF payment of $703,671 to compensate for the Project's wetland fill.

[1] The In Lieu Fee Compensation Program has revised their fee schedule to accommodate financial hardships due to COVID-19 and has extended the rate to January 2022.
https://www.maine.gov/dep/land/nrpa/ILF_and_NRCP/ILF/fs-in-lieu-fee.pdf