FUND TO ADDRESS PFAS CONTAMINATION

ANNUAL REPORT FISCAL YEAR 2026

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MAINE DEPARTMENT OF AGRICULTURE CONSERVATION & FORESTRY

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I. INTRODUCTION

The Department of Agriculture, Conservation and Forestry (DACF), Office of the Commissioner, is pleased to submit this fourth annual report on the Fund to Address PFAS Contamination ("the PFAS Fund") to the Joint Standing Committees on Agriculture, Conservation and Forestry; Environment and Natural Resources; and Health and Human Services.

This report covers the period from March 2025 to February 2026.

The PFAS Fund is housed in the Office of the Commissioner and is staffed by a director and two public service coordinators.

II. ANNUAL REPORTING REQUIREMENT

Under 7 M.R.S. §320-K(7), by March 1 annually, DACF is to submit an annual report that provides the following information to the Joint Standing Committees on Agriculture, Conservation and Forestry; Environment and Natural Resources; and Health and Human Services:

- The status of a plan to establish funding priorities, administration, and oversight,
- Uses of the PFAS Fund,
- Status of carrying out the purposes of the Fund as described in 7 M.R.S. §320-K(4),
- Additional needs identified by the agricultural community,
- What funds were dispersed from the Fund, and for what purpose those funds were dispersed,
- Activities of the advisory committee, including but not limited to the number of meetings held, a summary of each meeting, and recommendations for legislation from the advisory committee.

III. PLAN FOR ADMINISTRATION OF THE FUND TO ADDRESS PFAS CONTAMINATION

The *Plan for Administration of the Fund to Address PFAS Contamination* was adopted by the PFAS Fund Advisory Committee on July 10, 2023. The implementation plan includes 23 strategies to achieve the objectives described in 7 M.R.S. §320-K(4). The strategies are divided into four categories, each of which will be addressed in the next section:

- Direct support for impacted producers
- Land acquisition and management
- Research
- Health

PFAS Fund Rules

DACF needed to establish rules before implementing certain elements of the plan. Rules defining eligibility criteria, administrative procedures, evaluation criteria, and appeals procedures for programs through which the Department grants financial assistance became effective on March 17, 2024.

In Fall 2025, the PFAS Fund initiated rulemaking to refine the rules to improve clarity, facilitate implementation of the PFAS Fund, and align the PFAS Fund's appeal procedures with DACF's appeal procedures defined in 01-001 C.M.R. ch. 8. Following a public hearing on October 28, 2025, and a public comment period that closed on November 7, 2025, revisions to rule chapters 400-406 became effective on January 25, 2026:

- 01-001 C.M.R. c. 400: Administrative Cost Grants
- 01-001 C.M.R. c. 401: Income Replacement Grants

- 01-001 C.M.R. c. 402: Technical Assistance Grants
- 01-001 C.M.R. c. 403: Equipment and Infrastructure Grants
- 01-001 C.M.R. c. 404: Grants to Provide Assistance Obtaining New Loans
- 01-001 C.M.R. c. 405: Real Estate Purchases and Disposition
- 01-001 C.M.R. c. 406: Competitive Research Grants

On February 19, 2026, DACF announced a new comment period for rule chapters 407, Financial Support for PFAS Blood Serum Testing, and 408, Financial Support for Mental Health Care. These two rules were substantially revised based on public comments received during the Fall 2025 comment period. The latest revisions refine eligibility criteria for PFAS blood serum testing and mental health support services paid for by the PFAS Fund. The comment deadline is March 25, 2026.

Amendment to the PFAS Fund's Enabling Statute

DACF also submitted a bill to the Legislature in 2025, LD 130, *An Act to Establish the PFAS Response Program and to Modify the Fund to Address PFAS Contamination.* The bill passed and became effective in September 2025. Notable changes to the PFAS Fund's statute include specification that personally identifiable information collected as part of implementing the PFAS Fund's health initiatives is confidential, the PFAS Fund may be used for personnel services, proceeds of real estate sales or leases will be returned to the PFAS Fund, the advisory committee shall select two chairs from among its members (previously, chairs were appointed by the Senate President and Speaker of the House), and the Advisory Committee is obligated to hold at least one public meeting, rather than two public hearings, annually to seek input from the public on efforts to meet the purposes of the Fund.

IV. USES OF THE FUND / STATUS OF CARRYING OUT THE PURPOSES OF THE FUND

A. Direct Support for Impacted Producers

The implementation plan describes eight strategies (Strategies I.A-H) to carry out the purposes identified in 7 M.R.S.A. §§ 320-K(4)(E-G), which states that the Fund may be used to support commercial farms by, for example, investing in infrastructure, supporting the development of enterprise budgets, and issuing income replacement payments. See Appendix A for a complete list of strategies and their current status.

Grant Program (Strategies I.A-B, D, E-F)

PFAS Fund staff created a **Master Application** for an array of grant programs administered by both the PFAS Response Program[1] and the PFAS Fund. Applicants can use the multipart form to apply for programs for which they are eligible, regardless of whether the program is administered by the PFAS Response Program or the PFAS Fund. The PFAS Fund's grant programs are listed below.

- **Administrative Cost Grants:** One-time grants to partially compensate impacted commercial farms for their time spent responding to PFAS (e.g., interacting with DACF staff, informing

[1] DACF's PFAS Response Program is housed within the Bureau of Agriculture, Food, and Rural Resources. The seven-member staff assist impacted farms by conducting comprehensive testing to determine sources of exposure and the levels of PFAS in various media, including soil, water, forage, compost, manure, milk, and vegetative and animal tissue. Working with the Maine CDC, staff also assess the results and work with impacted farmers to create mitigation plans to reduce contamination at the farm level, produce safe products, and enable farms to remain viable. The PFAS Response Program has also provided about $3.7 million in financial support to impacted producers as of February 2026. Some of the financial assistance programs previously administered by the PFAS Response Program shifted to the PFAS Fund in March 2024 (e.g., income replacement).

customers, and considering options for modifications to their operations). Effective January 25, 2026, the grant amount is $4,000 and is based on 80 hours multiplied by the average hourly rate for a Maine farm manager according to the U.S. Bureau of Labor Statistics' O*Net.[2] (Strategy I.D)

- **Income Replacement Grant:** A grant for up to 24 months of lost income, adjusted for inflation, for commercial farms that have stopped selling some or all products due to PFAS contamination. The 24 months do not need to be consecutive. Producers must have documentation of their pre-PFAS farm income. (Strategy I.A)
- **Technical Assistance Grants:** Grants for professional services (e.g., business planning, engineering, marketing, accounting, legal services) that help guide a farm's response to the discovery of PFAS. (Strategy I.B)
- **Equipment and Infrastructure Grants:** Before the revised rules took effect, the PFAS Fund could provide grants for infrastructure projects valued greater than $150,000. The PFAS Response program had responsibility for projects valued up to $150,000. As of January 25, 2026, the dividing line between the two programs is now $100,000. The grants cover equipment and infrastructure that help commercial farms transition to new products and production methods. (Strategy I.E)
- **Grants to Provide Assistance Obtaining New Loans:** The PFAS Fund may provide financial support for extra costs associated with obtaining a new loan due to the presence of PFAS. For example, the PFAS Fund may pay fees for obtaining a Guaranteed Farm Loan through USDA's Farm Service Agency or the cost of an environmental site assessment that is required by a lending institution. (Strategy I.F)

PFAS Response Kit (Strategies I.G-H)

In July 2024, the PFAS Fund released the **PFAS Response Kit** (Strategy I.H). It is a reference document that is designed to help producers better understand the State's processes for investigating and responding to PFAS contamination, the potential impact of PFAS on producers' livelihoods and well-being, and the public and private resources available to help them navigate these challenges. It includes applications and publications from various organizations. It also addresses communications with customers and public relations in furtherance of Strategy I.G (provide support for public relations and marketing).

The PFAS Fund is currently updating the PFAS Response Kit to reflect changes in programs and scientific understanding over the past two years.

PFAS Navigator Program (Strategy I.C)

Also in July 2024, the PFAS Fund launched the **PFAS Navigator Program** in partnership with the University of Maine Cooperative Extension's Maine Agricultural Mediation Program. With a 5-year contract for $340,000, the PFAS Fund supports a part-time program coordinator and two part-time navigators, all of whom work with producers to identify goals, interests, and needs for their farms and their families. Through collaborative conversations, navigators help farmers connect with existing technical, financial, and social assistance programs and resources. Program staff are a "touch point" for farmers' questions and provide support to farmers as they navigate forms and applications for PFAS-related assistance programs. This is a voluntary, confidential, and no-cost program.

[2] See https://www.onetonline.org/link/localwages/11-9013.00?st=ME.

In 2025, the PFAS Navigator Program continued to provide comprehensive, individualized support to agricultural producers impacted by PFAS contamination, with a focus on grant navigation, resource coordination, and ongoing technical and emotional support. To date, the program has engaged with 11 agricultural producer participants, 6 of whom were new in 2025. Support includes organizing application materials, coordinating required supporting documentation, clarifying eligibility requirements, and providing ongoing guidance through the grant submission and review process.

Beyond grant assistance, navigators facilitated access to technical guidance related to PFAS mitigation, including proper disposal of contaminated hay, coordination of water testing, and referrals to agricultural, business planning, and wellness resources. Recognizing barriers such as limited internet access for some producers, navigators adapted service delivery by offering phone-based and in-person support to ensure equitable access to information and assistance.

The PFAS Navigator Program also emphasized outreach and education in 2025, engaging in 108 inquiries and discussions through direct participation in agricultural conferences, fairs, professional meetings, and inter-agency presentations. Outreach efforts at events such as the MOFGA Common Ground Fair, Maine Agricultural Trade Show, UMaine Wild Blueberry Conference, USDA County Committee meetings, and regional wellness forums helped ensure that PFAS-affected producers and service providers were informed about available resources and funding opportunities.

The Navigator Program coordinator collects feedback from producers during intakes and through periodic follow-up phone calls. Producers consistently report that navigator support helps reduce stress, improve confidence in decision-making, and helps them better understand and manage the complex challenges associated with PFAS contamination. The program's strength continues to lie in its personalized, relationship-based approach, while ongoing feedback highlights opportunities to further strengthen post-referral follow-up and clarity around eligibility determinations managed by external funding agencies.

B. Land Acquisition and Stewardship

The implementation plan describes four strategies (Strategies II.A-D) to carry out the purposes identified in 7 M.R.S. §§ 320-K(4)(C-D), which states that the Fund may be used to buy, sell, and relocate a commercial farm with PFAS-contaminated agricultural land. See Appendix A for a status summary.

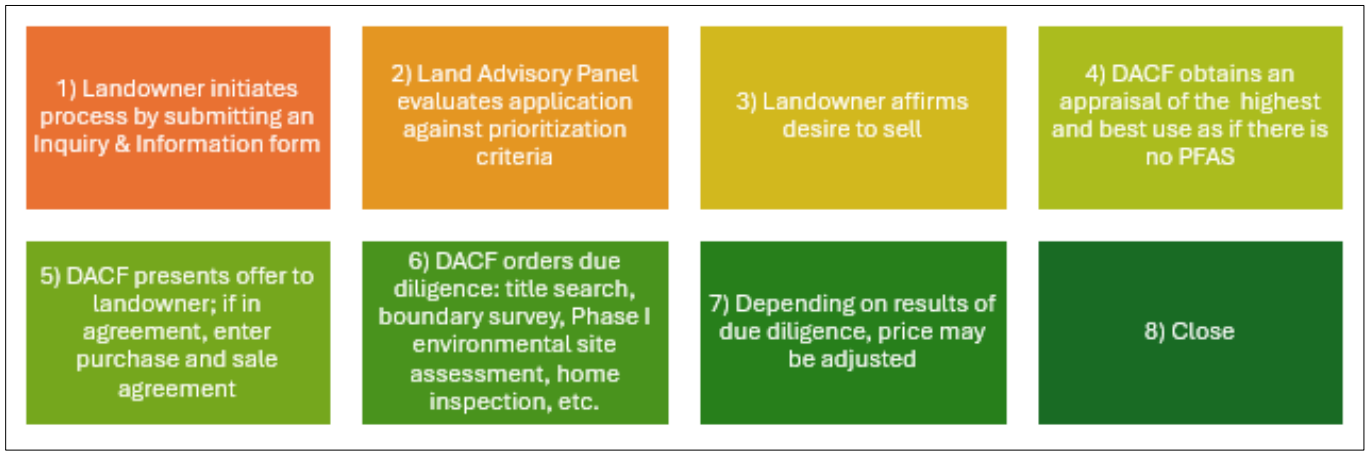
Real Estate Purchases (Strategy II.A)

Strategy II.A states that the PFAS Fund will purchase PFAS-contaminated land from willing sellers at fair market value as if there were no PFAS. Real estate purchases are governed by 01-001 C.M.R. ch. 405 and proceed according to the process depicted in Figure 1.

The PFAS Fund closed on its first property on February 24, 2025. It is a 108-acre property in Waldo County that is about 75 percent forest and 25 percent open field. PFAS contamination is expected to be limited to the field. The PFAS Fund has named the property Terrazza.

Most recently, the field was used for hay production. Before that, it was used to grow corn. According to the USDA Natural Resources Conservation Service classification system, the soils are primarily Prime Farmland, with a portion being Farmland of Statewide Importance. Because of the level of PFAS contamination, the hay grown on this property should not be used as the sole source of fodder for dairy animals that receive a 100 percent grass-based diet. Agricultural products that take up less PFAS may potentially be grown on this property.

Figure 1. PFAS Fund land purchase process.



The PFAS Fund has obtained appraisals on four other properties. Two landowners decided not to sell, one has not yet responded to the offer to purchase, and the PFAS Fund hopes to close on the fourth property in the Spring of 2026. The closing was originally scheduled for October 2025 but has been delayed to address an issue related to the conservation easement that encumbers the property.

Principles of sovereign immunity prevent DACF from agreeing to the standard Enforcement and Warranty provisions contained in the conservation easement. Consequently, the holder of the easement, the Maine Attorney General's Office, and DACF have mutually agreed to amendments that explicitly state that the Enforcement and Warranty provisions do not apply to the State of Maine as landowner. The parties are jointly asking Maine Superior Court to approve these changes so that DACF can take title to the property subject to the conservation easement without violating constitutional principles of sovereign immunity. Court documents will likely be filed in mid-March 2026.

DACF may ask the Legislature for a statutory remedy during the next session so that court action is not required each time the PFAS Fund purchases land encumbered by a conservation easement. Thus far, the need to seek court approval has delayed the closing by five months and has caused both the PFAS Fund and the easement holder to accrue significant legal costs.

Land Stewardship (Strategy II.B)

Strategy II.B states that DACF will manage acquired properties for public purposes (e.g., conservation, carbon sequestration) with a goal of returning the land to private ownership for agricultural production whenever possible.

The PFAS Fund enrolled the Terrazza property in the Maine Department of Environmental Protection (DEP) Voluntary Response Action Program (VRAP). The VRAP allows applicants to voluntarily investigate and remediate known and identified contaminants to DEP's satisfaction, in exchange for protection from DEP enforcement actions.

DEP issued a No Further Action Assurance Letter on November 14, 2025. The letter explains that DACF and subsequent landowners are qualified for protection from liability under 38 M.R.S. § 343-E provided they comply with the following provisions:

1. The extraction of groundwater at the Site is prohibited without the express written permission of DEP.
2. The Site must not be used for residences, schools, childcare facilities, or long-term health care facilities unless the express written permission of DEP is obtained to use the Site for those

purposes. Use of the Restricted Area [the field] for agricultural purposes must be approved by DACF or its successor, must be conducted in accordance with State guidance for PFAS-contaminated land, and must consider current PFAS soil and groundwater risk guidance. An agricultural plan, including a monitoring plan reviewed and approved by the DACF PFAS Response Program or its successor, must be submitted to DEP prior to implementation. Research proposals for the Restricted Area must be submitted to and approved by DACF or its successor prior to implementation and a copy of such proposals must be submitted to DEP.

3. Soils and groundwater that remain located in situ at the Site and that may be disturbed during future Site activities may not be moved off-Site without the express written permission of DEP.

A Declaration of Environmental Covenant that incorporates the above conditions was recorded on January 15, 2026, in the Waldo County Registry of Deeds in Volume 5190, Page 258.

The PFAS Fund will manage the agricultural field in consultation with DACF's PFAS Response Program, which has advised that corn production for animal feed is a reasonable use of this property given the relatively low levels of PFAS contamination (PFOS =12.6 and PFOA=13.9 ppb) and current knowledge about the limited transfer of PFAS from soil to corn. In January 2026, the PFAS Fund ran a classified advertisement in the Town Line newspaper[3] seeking a commercial farmer interested in leasing the 24 acres site for corn production. One farmer expressed interest. DACF has initiated conversations about lease terms, which will include a requirement that the farmer cooperate with the PFAS Response Program to reduce the risk that products produced on the property will be unacceptably affected by the site's PFAS contamination. Lease terms will also include requirements for testing and monitoring.

DACF plans to coordinate management of the forested portion of the parcel with the Maine Forest Service (MFS). The intention is to use the woodland as a demonstration forest for education, research, and practical demonstrations of the differing types of forest stewardship available to the average woodlot owner. That is, the forest may be managed to improve forest resources, such as timber and other products, wildlife habitat, soil, water, and recreational uses. Activities will likely also be coordinated with the Waldo County Soil and Water Conservation District. The PFAS Fund and MFS have drafted a Memorandum of Understanding (MOU) to define respective responsibilities and costs.

Conservation Measures (Strategy II.C)

Strategy II.C is the only land-related strategy that has not yet been addressed. It directs the PFAS Fund to establish a program to make payments to commercial farmers who take PFAS-impacted land out of production and agree to manage it in a manner that achieves conservation or other policy goals. This objective has not been prioritized because most farms, with technical and financial support from DACF, have been able to remain viable despite the presence of PFAS.

Nonetheless, as envisioned in the PFAS Fund's implementation plan, this proposed program would be similar to the Farm Service Agency's Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP). In exchange for a yearly rental payment, farmers enrolled in the CRP or CREP program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. Here, too, contaminated land would be removed from agricultural production and managed to achieve conservation goals.

The establishment of a program to make conservation payments will require focused staff time, research into what conservation measures would be advisable, consideration for State objectives (e.g., as documented in Maine's climate plan, *Maine Won't Wait*), and dedicated long-term funding. Changes at the federal level to expand eligibility for the CRP and CREP programs to include PFAS-impacted

[3] The Town Line is a community newspaper serving Central Maine. See https://townline.org/.

producers would be another avenue to advance Strategy II.C. A recent study by the National Academies of Sciences, Engineering and Medicine reported, "CRP may provide another pathway [to address PFAS on farmland] by retiring contaminated land and mitigating PFAS impacts through vegetative covers, pilot projects, or partnerships under the Conservation Reserve Enhancement Program."[4] However, the report also noted practical limitations, including oversubscription and eligibility rules.

Informational Materials (Strategy II.D)

Strategy II.D refers to the production and distribution of informational materials to landowners, professionals involved in real estate transactions, and municipal offices to provide "guidance on buying or selling agricultural lands that have had sludge or septage applied" (7 M.R.S. § 320-K(4)(M).

In part, this objective has been addressed by the PFAS Response Program. In February 2025, the director and a staff member spoke with approximately a dozen members of a Central Maine realty office, Brookwood Realty in Manchester. They discussed DACF's support programs for PFAS-impacted producers, sample collection procedures, lab testing timelines, how to interpret lab reports, and an overview of DEP's LD 1600 investigation, including what information is and is not readily available to the public.

The PFAS Fund has established a Prequalified Vendor List (PQVL) of Maine-licensed real property appraisers with experience valuing agricultural land. Appraisers are asked to adopt a hypothetical condition when developing an opinion about the highest and best use of a property (i.e., appraise the subject property as if it was not contaminated by PFAS). While these appraisers do not need an understanding of PFAS to complete their appraisals, in the course of interacting with PFAS Fund staff, their knowledge of issues related to PFAS in agriculture has expanded.

DACF engages with municipalities on an as-needed basis. The PFAS Fund's land acquisition rule, 01-001 C.M.R. § 7(6) reads, "Once DACF holds title to real estate, DACF may pay in lieu of tax (PILOT) fees as grants to municipalities where the subject real estate is located." DACF has made a policy determination that the PFAS Fund will pay an amount equivalent to the amount of taxes that would be due if the property were held by a private landowner and enrolled in an Open Space program described in 36 M.R.S. § 1106-A.[5] Consistent with this policy, DACF has offered to pay a PILOT to Palermo and is waiting for the town to provide information needed to process the payment.

C. Research

The implementation plan describes three strategies to carry out the purposes identified in 7 M.R.S. §§ 320-K(4)(H-L), which states that the Fund may be used to conduct research that supports farm management decisions (e.g., investigations of alternative cropping systems, differential uptake of PFAS by various crops, soil and water remediation systems). See Appendix A for a status summary.

Research Grants (Strategy III.A)

The PFAS Fund's competitive research grants are governed by 01-001 C.M.R. ch. 406. In September 2024, the PFAS Fund opened its first solicitation for *Major Grants for the Study of PFAS in Agricultural Systems*. With $3 million in support from USDA Award FSA23CPT0013603, the PFAS Fund ultimately selected seven projects for funding in Spring 2025:

[4] National Academies of Sciences, Engineering, and Medicine. 2026. *PFAS in Agricultural Systems: Guidance for Conservation Programs at USDA*. Washington, DC: The National Academies Press. https://doi.org/10.17226/29272.
[5] See https://legislature.maine.gov/statutes/36/title36sec1106-A.html and https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/land-use-programs.

1. Caleb Goossen, Maine Organic Farmers and Gardeners Association, **Fractional Loading and Occurrence of Airborne Transfer of PFAS (FLOAT)**, $213,505

   Summary: This study examines how PFAS present in agricultural soils become airborne during tillage events. Contaminants are often concentrated in fine soil particles, which can be lifted into the air as dust, potentially impacting environmental and human health. To understand this process, soil samples from multiple fields will be analyzed to determine how PFAS are distributed across different soil particle sizes. At one site, dust will be collected before, during, and after a field preparation to assess how much and how far contaminants travel. The results will help identify which soil components pose the highest risk for airborne transport and how their PFAS levels can be used to predict potential dust contamination. Findings from this study will provide valuable insights for farmers, researchers, and policymakers working to mitigate the risks of airborne soil contaminants in agricultural settings.

2. Ling Li, University of Maine, **Effects of Biochar Aging, Application Ratio, and Low-Cost Modification on Reducing PFAS Uptake by Vegetables: Laboratory and Field Studies**, $500,000

   Summary: This project aims to investigate whether biochar can be used as a soil amendment to immobilize PFAS in the soil and reduce its bioaccumulation in the edible parts of vegetable crops, such as lettuce and tomatoes. The study will address several key questions: the optimal application rate of biochar in the soil, the frequency with which additional biochar should be applied after the initial amendment, and low-cost modification techniques to enhance biochar's ability to adsorb short-chain PFAS from the soil. This research will involve both laboratory and field studies. The findings will contribute to developing practical guidelines for farmers on the use of biochar in PFAS-affected soils.

3. Ellen Mallory, University of Maine, **Evaluating precursor transformation contributions to plant PFOS uptake and bioaccumulation**, $499,995

   Summary: Plant uptake from contaminated soils is a major way PFAS compounds enter our food systems. In the case of milk and meat, there is particular concern about uptake of perfluorooctane sulfonic acid (PFOS) by forage crops due to the prevalence and toxicity of PFOS. Being able to accurately predict how much PFOS moves from soil to plants to animals is critical for assessing risk and developing mitigation strategies, but one major factor complicating those predictions is that PFOS, like some other PFAS compounds, can be created through the transformation of “precursor” compounds. Concentrations of these PFOS precursors can vary widely from field to field and could be contributing to the high variability of plant PFOS uptake rates that have been observed. We will conduct paired greenhouse and field studies to assess whether PFOS precursor compounds in soil influence PFOS uptake rates from soil to grass, and to what extent.

4. Sharmila M. Mukhopadhyay, University of Maine, **Rapid Detection and Monitoring of PFAS in Water and Solids**, $496,432

   Summary: One of the first steps in understanding how to manage PFAS on the farm is timely detection. Currently, this first step is burdensome for farms due to the slow turnaround time and high cost of analytical testing. Typically, it takes over a week to obtain test results at a cost of $200-$400 per sample, with multiple samples needed for each study. This proposed research will address this challenge by developing and demonstrating portable electrochemical sensors that can be used for rapid, on-site, and

inexpensive testing. These user-friendly devices can be operated by farmers to obtain quick in-house results and determine the level of PFAS in different samples at different locations and times, hence obtaining a better understanding of the contamination issue for a timely response.

5. Glenda Pereira Parente, University of Maine, **Evaluating PFAS Bioaccumulation and Depuration in Dairy Sheep and Lambs: Using Insights from Pharmacokinetic Modeling to Develop Mitigation Strategies**, $499,989

   Summary: The research team seeks to develop strategies to reduce PFAS contamination in livestock animals, which will help protect agricultural integrity, public health, and animal welfare. This study will be conducted on ewes from an already awarded EPA grant, but adding additional samples to model the kinetics of PFAS bioaccumulation and depuration, as well as being able to sample during an entire lactation (beyond 81 days in milk). The first objective will focus on how PFAS moves through the animal's body during gestation, lactation, and depuration (cleaning) after being fed clean feed. The results will guide regulatory measures for PFAS contamination and its impact on animal products such as milk, meat, and eggs. The second objective examines the effects of feeding management practices during the weaning phase. The research will explore how early-life exposure to PFAS affects bioaccumulation of PFAS in animals and the potential for reducing contamination through clean milk replacers.

6. Elsie Sunderland, Harvard University, **Understanding and Managing the Transfer of Diverse PFAS in Biosolids Impacted Soils to Poultry and Eggs**, $500,000

   Summary: This project will examine how per- and polyfluoroalkyl substances (PFAS) on two biosolids-contaminated farms in Maine are transferred to poultry and eggs. We will consider exposures through direct consumption of contaminated soil, insects, earthworms, and airborne dust particles. We will monitor seasonal changes in eggs and test the effectiveness of different coop setup interventions (location changes, dust minimization, platforms, soil barriers) for minimizing PFAS exposure. Data will be used to provide advice for farmers for minimizing PFAS contamination in chickens and eggs, and to develop soil screening values protective of public health.

7. Xiaoxiao Zhao, University of Maine, **Energy-efficient PFAS immobilization and degradation in soil using non-thermal plasma electrodes coated with activated carbon**, $284,869

   Summary: Current PFAS cleanup methods are costly, energy-intensive, fail to fully remove PFAS, damage soil fertility, and create additional environmental waste. This project will use activated carbon coated on a plasma electrode to capture PFAS from soil. After capturing sufficient PFAS onto activated carbon, plasma will be activated to break down the PFAS molecules and refresh the activated carbon. By periodically activating plasma, this method not only destroys the PFAS but also refreshes the carbon's ability to capture PFAS. This approach is expected to deliver key benefits: 1) energy efficiency, by using non-thermal and low-power plasma reactions; 2) long-term effectiveness, by fully breaking down PFAS instead of just trapping them; 3) soil fertility and safety, by avoiding harmful soil disruption and generating nutritious nitrogen species; and 4) sustainability, by reducing waste by periodically refreshing activated carbon.

The PFAS Fund opened a second round of Requests for Applications in October 2025. This time, there are two categories of proposals being sought: Targeted Grants of up to $100,000 and 18-month

duration, and Major Grants of $100,000 - $500,000 and 24-month duration. In both cases, the intent is to fund research that helps farmers determine their best options for maintaining and enhancing viability despite the presence of PFAS on their property. A total of $3.5 million of State funds may be awarded. The proposal submission deadline was February 13, 2026. A total of 31 proposals were received and will be evaluated by peer reviewers for scientific merit and relevance to Maine agriculture. The PFAS Fund anticipates announcing awards in May 2026.

On October 7, 2025, the PFAS Fund Advisory Committee supported a proposal to expand the scope of Strategy III.A to authorize the PFAS Fund to grant matching funds to researchers who are seeking funding from external grantmaking entities when those external entities' priorities are consistent with the PFAS Fund's research priorities and the external entities employ a rigorous peer review process that is comparable to the PFAS Fund's process. Provisions allowing the PFAS Fund to be used for match are included in the amended version of 01-001 C.M.R. ch. 406, which became effective on January 25, 2026.

Using the PFAS Fund for match allows DACF to amplify its support for research to help farmers determine their best options for maintaining and enhancing viability despite the presence of PFAS on their property.

Research Station (Strategy III.B)

Strategy III.B calls for the establishment of a dedicated research station on a property purchased by the PFAS Fund. As envisioned, a research station would be a closed system that could be increasingly characterized over time. Having a deep understanding of the property could reduce costs of future work and may lead to new hypotheses, projects, and insights. Additionally, researchers could be confident in their ability to conduct multi-year research, and there would be potential for synergy among researchers working at the same location. Access to an experiment station would make researchers more competitive when seeking funding. Additionally, an experiment station may draw researchers to Maine.

The Terrazza property is better suited for agricultural production and forest education, as discussed above, rather than for development as a research station. Researchers are, nonetheless, invited to conduct research on the property.

Researchers interested in conducting studies on properties purchased by the PFAS Fund should contact program staff to discuss needs and timing and complete a Researcher Access to DACF-Owned Property Request Form. Requests are evaluated quarterly: February 1, May 1, August 1, and November 1.

Requests for access will be screened by staff to determine whether the request can be accommodated on a property purchased by the PFAS Fund. If there is a suitable property, the research proposal will be reviewed by the PFAS Fund Research Advisory Panel for scientific merit and potential benefit to Maine agricultural producers. Proposals will be further vetted by the PFAS Fund's Land Advisory Panel for consistency with stewardship objectives and to ensure an absence of conflicts with other uses of a given property. Once a project has been approved, the PFAS Fund will seek approval from the DEP's Voluntary Response Action Program if the property is subject to an environmental covenant.

If a request is approved by both DACF and DEP (if applicable), DACF will enter a MOU, lease, license, or other agreement as appropriate with the researcher. The agreement will cover the terms of use of the property and legal rights, responsibilities, and obligations, including insurance coverage.

As other properties are purchased, the PFAS Fund will evaluate them for potential use as a dedicated research station in consultation with the Land and Research Advisory Panels and the academic community. Considerations include property characteristics (location, soil type, degree of contamination, media impacted), infrastructure (water, electricity, structures, potential for lab space and animal handling facilities), staff, budget, and equipment.

Facilitation and Communication (Strategy III.C)

Strategy III.C directs the PFAS Fund to compile and share scientific information resulting from the competitive research grant program. While the research grant program has funded numerous projects, data and results of those efforts are still a couple of years out. Meanwhile, the PFAS Fund is facilitating communication between researchers and agency personnel, as well as connections between researchers and farmers, which strengthens the foundation for current and future research.

PFAS Fund staff participate in quarterly meetings with researchers and administrators from the University of Maine and the USDA Agricultural Research Service office in Orono, Maine. They also served as reviewers for grants being awarded by the University of Maine (*Understanding, Remediating, and Reducing Per- and Polyfluoroalkyl Substances (PFAS) Contamination Related to Food Systems*), and helped to organize a forum at Northeastern University's Roux Institute in Portland in September 2025, to explore how Maine's life science community can unlock new ways to understand, reduce, or eliminate PFAS contamination.

The PFAS Fund has also established procedures to connect researchers with PFAS-impacted farmers, include impacted farmers in the development of research questions, and facilitate communication among researchers and impacted producers. The Researcher-Farmer Connection program is designed to protect the identities of PFAS-impacted producers. First, researchers complete a Researcher/Impacted Producer Connection Request Form (PDF) and return it to PFAS Fund staff. Staff screen proposals for scientific merit and potential benefit to Maine agricultural producers before sharing them with a cohort of farmers who have indicated a willingness to support research. Farmers then contact the researchers if they are interested in working with them.

As part of developing the second round of the competitive research grant program, impacted producers were sent a survey where they could submit research questions and indicate their level of interest in participating in research proposals. After review and revision by the Research Advisory Panel, producers' research questions were included in the October 2025 Targeted Grant Request for Applications. Producers who indicated an interest in collaborating with researchers on a research proposal were invited to an information session. After the information session, researchers and producers shared their research interests. As a result, submitted proposals included new collaborations among researchers and between researchers and impacted producers.

D. Health

The implementation plan describes eight strategies to carry out the purposes identified in 7 M.R.S. §§ 320-K(4)(A-B), which states that the Fund may be used to monitor health and provide medical care to persons whose blood levels of PFAS are greater than those of the general population. See Appendix A for a status summary.

DACF and the Maine Center for Disease Control and Prevention (Maine CDC) share responsibility for implementing the PFAS Fund's health-related strategies. In April 2024, the two agencies executed a MOU to describe their collaboration in performing a number of PFAS-related projects slated for payment by DACF via the PFAS Fund, a USDA grant, and DACF's PFAS Response Program.

PFAS Blood Serum Testing (Strategy IV.A)

Strategy IV.A calls on the PFAS Fund to establish a program to pay for costs not otherwise covered by health insurance for PFAS blood serum testing for persons who were exposed to PFAS through the land application of residuals (i.e., biosolids or sludge) in Maine. The PFAS Fund launched a PFAS blood serum testing program in September 2025. The program is governed by 01-001 C.M.R ch. 407.

For most people, exposure to PFAS does not have a noticeable impact on their overall health. However, the National Academies of Sciences, Engineering, and Medicine (NASEM) reported potential adverse health effects, especially in sensitive populations, in persons with PFAS blood serum levels between 2 and 20 nanograms per milliliter (ng/mL), and an increased risk of adverse effects at PFAS blood serum levels over 20 ng/mL.

PFAS blood serum tests provide information to guide future care. For instance, if a blood test reveals PFAS blood serum levels above 20 ng/mL, physicians can closely monitor that individual using routine testing (e.g., lipid panel, liver function test) to catch and treat conditions early. The decision whether to get a PFAS blood serum test should be a mutual decision made between an individual and their medical provider based on factors such as the individual's exposure history.

The cost of PFAS blood serum testing has been a barrier for many people. To remove this financial concern, the PFAS Fund will pay for blood serum testing for eligible individuals. People are eligible if they lived or worked within the past 10 years on commercial farms where groundwater tested above 20 ppt (sum of 6 PFAS) and/or the soil measured above 170 ppb PFOS. Similarly, non-farm Maine residents whose private well water or soil exceed these thresholds can access blood testing if the contamination is due to the land application of biosolids.[6]

The PFAS Fund's program was designed to provide eligible households with access to blood serum testing at no cost, while leaving medical decisions and timing to individuals and their health care providers.

In September 2025, the PFAS Fund mailed notification letters to over 600 residences, informing them that household members are presumptively eligible for PFAS blood serum testing based on water and/or soil testing conducted by the State of Maine. The Maine DEP has also begun to notify presumptively eligible households as they receive new test results as part of DEP's PFAS groundwater and soil investigation (LD 1600). The notification letters include a survey that asks recipients to identify everyone who has lived or worked at the property over the past 10 years. Upon the receipt of the survey responses, the PFAS Fund mails authorization forms to the named individuals. Since October 2025, the PFAS Fund has issued 399 authorizations.

Approved individuals who want testing need to make an appointment with their health care provider who will order the test using the information on the authorization form. Blood test results are reported to the medical professional who ordered the test. Results with detectable levels of PFAS will also be reported to Maine CDC. DACF does not receive any clinical information.

The PFAS Fund contracted with Quest Diagnostics to analyze blood samples. Quest is the world's leading provider of diagnostic information services[7] and one of the few laboratories capable of analyzing serum for the suite of PFAS requested by DACF in consultation with Maine CDC: perfluorooctane sulfonic acid (PFOS) (linear and branched isomers), perfluorooctanoic acid (PFOA) (linear and branched isomers), perfluorononanoic acid (PFNA), perfluorodecanoic acid (PFDA), perfluorohexane sulfonic acid (PFHxS), and perfluoroheptanoic acid (PFHpA).

Quest bills the PFAS Fund for the portion of the test cost not covered by insurance, up to a maximum of $250 per test. Likewise, Quest bills the PFAS Fund for the portion of the cost of the blood draw not

[6] The PFAS Fund has also developed a waiver option for people who do not meet the eligibility criteria but nonetheless have been exposed to PFAS by the land application of biosolids, e.g., they regularly consume game harvested from land that was contaminated by PFAS because of biosolids.

[7] See https://www.questdiagnostics.com/our-company/about-us (visited 2/25/26).

covered by insurance if the patient had their blood drawn at a Quest facility. If a patient's test is fully covered by insurance, DACF does not get an invoice.

The PFAS Fund blood serum testing program is still very new, and participation takes time because it is a multi-step, voluntary medical process: authorization letters are mailed, recipients consult with their health care providers to decide whether testing is appropriate, and individuals then schedule and complete blood draws.

To facilitate access to blood testing, the PFAS Fund arranged for Maine Mobile Health Program[8] (MMHP) to host a pop-up clinic at the Agricultural Trades Show in Augusta in January 2026. MMHP is a federally qualified health center that provides mobile medical, behavioral health, and nursing care to patients at farm worker camps and other community settings across the state. Anyone who has worked in agriculture or has a family member who has worked in agriculture within the past two years is eligible for care from MMHP, regardless of insurance status. During the Agricultural Trades Show, a team comprised of a physician, a behavioral health specialist, nurses, and community health workers were available to conduct free health screenings, register patients for primary care, and draw blood for PFAS blood serum testing.

Public Health Oversight of PFAS Blood Testing (Strategy IV.B)

Strategy IV.B charges Maine CDC with developing and managing a program to track and respond to PFAS blood serum test results.

Maine CDC conducted rulemaking in 2025 to update the Notifiable Disease Reporting Rule to designate PFAS detectable in serum as a notifiable condition. The rule went into effect on June 4, 2025. Between June 2025 and February 19, 2026, a total of 164 blood tests with a positive detection of PFAS had been reported to Maine CDC. Nearly a third of these results were explicitly connected to the PFAS Fund's testing program, a proportion that has continued to expand since DACF launched its blood testing program in September 2025.

Maine CDC has established internal criteria, informed by the National Academies of Science, Engineering and Medicine's recommended thresholds, for determining when to conduct case follow-up in situations where reported blood test results would be likely to present an opportunity for exposure intervention and reduction. Of the 164 results received to date, 46 (28%) have prompted case follow-up. Most of these cases can be linked to contaminated drinking water from nearby PFAS-impacted sites. Other exposure pathways under investigation include the consumption of locally raised chicken eggs from a homestead with contaminated soils around their home, venison harvested from fields with a history of biosolid application and known elevated PFAS in soil, and fish from a waterbody recently placed under a consumption advisory due to elevated PFOS concentrations.

Maine CDC continues to evaluate available informatics tools for supporting electronic reporting, case management, and tracking purposes. Key laboratories are reporting blood test results using HL7 formatted messaging (a protocol for exchanging healthcare data between systems using a standard for message structure and content). Issues with different reporting formats and completeness of reporting have been identified, and efforts are underway to address these issues. Maine CDC finalized its survey instrument in REDcap, which is used to collect information on potential exposure sources for results that warrant case follow-up and currently serves as a repository for exposure information. Maine CDC continues to assess possible integrations between REDcap and NEDSS.

[8] Maine Mobile Health also serves the aquaculture and seafood industries. See https://www.mainemobile.org/index.html (visited 2/26/26).

PFAS Body Burden Reduction (Strategy IV.E)

At the time that the PFAS Fund implementation plan was adopted in 2023, there were no treatment options available in Maine to reduce the levels of PFAS in the human body. To address this shortcoming, Strategy IV.E proposed funding a clinical trial to advance the scientific understanding of potential treatment options.

The medical community's understanding of treatment options to reduce PFAS body burden has since evolved. For instance, a clinical trial published in 2024 documents the effectiveness of a cholesterol-lowering drug, cholestyramine, at reducing PFAS blood serum levels.[9] Also, two Maine hospitals have approved cholestyramine protocols for treating individuals with elevated blood serum levels. Given these advances, there is less of a critical need for the PFAS Fund to support the establishment of a new clinical trial.

Accordingly, on March 5, 2025, the PFAS Fund Advisory Committee recommended that DACF modify Strategy IV.E. Specifically, the Committee recommended that funds initially set aside for a clinical trial be redirected toward the dissemination of information about protocols for using cholestyramine. The $200,000 budgeted for the initiation of a clinical trial will be used to a) further document the clinical application of cholestyramine through publication of a case series, and b) convene a panel of physicians, scientists, and affected community members to further vet, optimize, and publish a protocol for administration of cholestyramine for PFAS body burden reduction. This modification to the PFAS Fund implementation plan advances the original goal of Strategy IV.E. That is, it advances efforts to make treatment options available to Maine residents with elevated PFAS blood serum levels.

Maine CDC has contracted with Maine Medical Center to carry out the study.

Farmer/Farm Worker Soil Exposure Study (Strategy IV.H)

Strategy IV.H established the need for a study to investigate whether certain levels of PFAS-contaminated soil represent a significant source of ongoing exposure to people who work with soil, e.g., through incidental ingestion, inhalation, and dermal contact.

Maine CDC, in collaboration with Dr. Sara Lupolt of Johns Hopkins University, completed a modeling assessment of farm worker soil exposure to estimate which exposure pathways (ingestion, dermal, inhalation) are most likely to drive overall exposure. They prepared and submitted a manuscript to the *Journal of Exposure Science and Environmental Epidemiology*. The manuscript, recently accepted for publication, presents an assessment of soil screening levels for a farm worker exposure scenario to better understand the factors driving exposure from soil. These screening levels were derived using Maine-specific inputs and a probabilistic analysis to account for variability in model parameters. The resulting screening levels were compared to PFAS soil levels measured in over 850 biosolid-spread fields in Maine.

The modeling was the first step toward initiating a farm worker soil exposure study to identify pathways that need further examination. For example, the model uses estimates from the literature for incidental soil ingestion, which is a key input influencing overall exposure, but these estimates are not entirely farm worker specific. A farm worker study could directly measure factors related to soil ingestion (e.g., soil loading on hands, hand-to-mouth activity) and potentially measure overall soil ingestion. Personal exposure monitoring for soil particulates and ambient air PFAS measurements at farms would greatly add to the assessment of the inhalation exposure pathway. These types of field studies will provide

[9] Janne Julie Moller et al., *Substantial decrease of PFAS with anion exchange resin treatment – A clinical cross-over trial,* 185 ENVIRONMENT INTERNATIONAL (2024) 108497, https://doi.org/10.1016/j.envint.2024.108497.

empirical, real-world data to evaluate and refine the model, all with the goal of more accurately assessing Maine farm workers' PFAS exposure from soil.

The contract with the Johns Hopkins University scientist (Dr. Sara Lupolt) to assist in the farm worker exposure study was encumbered in October 2025. The period between October and December 2025 was focused on addressing reviewer requested revisions to the modeling manuscript on farm worker soil exposure. Meetings with Dr. Lupolt on the design of the farm worker exposure study design commenced in January 2026.

Maine CDC was able to perform a pilot study to test methods of measuring PFAS in ambient air while a farmer was engaged in tilling a field post-harvest. They are awaiting the laboratory results of this sampling effort.[10]

Health-related Educational Resources (Strategy IV.G)

Strategy IV.G recognizes that there is a need to educate the public and clinicians about sources of PFAS exposure and associated health issues.

The Maine CDC finalized a Frequently Asked Questions (FAQ) product for individuals who have had their water tested for PFAS and may want information on PFAS blood testing. This resource is provided by DEP to all households where testing revealed elevated well water results.

Maine CDC also engaged with a group of physicians to develop a clinician-facing document intended to support providers seeing patients with concerns about possible PFAS exposure. The document, *PFAS Blood Testing: Information for Clinicians*, summarizes relevant guidance from the National Academies of Science, Engineering and Medicine on PFAS blood testing and clinical follow-up and includes details on how to order a PFAS blood test in Maine. This resource has been instrumental for engaging with providers who may not be familiar with PFAS and the health risks they pose to their patients. The PFAS Fund includes this resource in its mailings to persons authorized for blood testing paid for by the PFAS Fund. Recipients are encouraged to share it with their health care providers.

Starting in 2026, Maine CDC intends to engage with a public health intern who will support efforts to identify high-priority gaps in public-facing materials on PFAS exposure sources and information about blood testing.

Mental Health Support (Strategy IV.F)

Strategy IV.F calls for the development of a program to support the mental health and well-being of farmers and residents of Maine who have been adversely impacted by PFAS contamination. In support of this strategy, the PFAS Fund contracted with Vermont Farm First to inventory and assess the capacity of local groups to address the mental health impacts of PFAS contamination, identify service gaps, and make recommendations about how to best address those gaps and implement a comprehensive mental health support system for those impacted by PFAS. Farm First is a Vermont-based program started by the State of Vermont in 2009 to address the mental health concerns of farmers. Farm First is considered a national leader in providing mental health services to farmers and has been one of the leading organizations in the USDA's program to address farmer mental health in the states that comprise the northeast region.

Vermont Farm First delivered its report in June 2025 (Appendix B). Its recommendations include:

[10] https://env.sgs.com/2021/02/05/sgs-axys-employs-new-method-to-measure-pfas-in-ambient-air-at-very-low-concentrations/

1. Develop a core of licensed counselors to provide mental health support to PFAS-impacted individuals,
2. Train the core group of counselors in the issues commonly faced by farmers and in the basics of PFAS contamination and resources,
3. Develop and train a peer support network, and
4. Continue to develop non-clinical wellness programming and support.

Additionally, the report includes recommendations for education, advocacy, outreach, coordination of activities by the groups that are currently providing non-clinical support, the creation of a one-stop referral pathway, and the development and implementation of a hotline.

The PFAS Fund was a sponsor of and participant in the Maine Land & Sea Farmer Wellness Forum hosted by the University of Maine Cooperative Extension in September 2025. Registrants included 108 service providers who work with Maine's farming and fishing communities, healthcare practitioners, policymakers, and professionals with expertise in insurance, finance, healthcare, or legal matters to support farming and fishing communities. The purpose of the event was to address knowledge gaps in physical and psychological health, create networks of care, share existing resources, find opportunities within existing structures, and consider new policies and programs.

Drawing on lessons learned through the Vermont Farm First report and the Farmer Wellness Forum, the PFAS Fund is poised to establish a working group to help define specific implementation strategies specific to farmers impacted by PFAS. The group will meet during the spring and summer of 2026 to:

- Create a process for identifying and training clinicians,
- Discuss models of delivery for routine supportive check-ins and professional counseling,
- Establish and train a peer support cohort,
- Identify informational needs and outreach mechanisms, and
- Synthesize the recommendations into a coherent, coordinated implementation strategy.

Additionally, the PFAS Fund recognizes that public servants are often in the difficult position of delivering devastating news to PFAS-impacted producers who often feel afraid, betrayed, overwhelmed, or stuck in a situation outside of their control.

To help support staff members – and to help those staff members better support PFAS-impacted producers – the PFAS Fund contracted with the National Alliance of Mental Illness (NAMI) Maine[11] to provide a *Mental Health Awareness and Intervention Training* on March 5, 2026. Participants will include employees from DACF, Maine CDC, and DEP who routinely engage with PFAS-impacted farmers. The training will include: 1) mental health education, signs and symptoms, 2) basic identification, intervention, and help-seeking when someone needs professional support (compassionate conversations), 3) suicide-specific signs and intervention, 4) de-escalation, 5) self-care, and 6) debriefing after a stressful event. The training will provide tools, techniques, and resources to support staff as they encounter typical challenges faced during their interactions with PFAS-impacted farmers.

<u>Medical Monitoring and Treatment (Strategies IV.C-D)</u>

Strategies IV.C-D call for the PFAS Fund to pay for the costs of medical monitoring and treatment of people with PFAS blood serum levels equal to or above 20 ng/mL when those costs are not covered by insurance. These two strategies are somewhat dependent upon the success of strategies IV.A (blood

[11] NAMI Maine's mission is to provide advocacy, education, and support so that all individuals, families, and communities affected by mental illness can live fulfilling lives.

testing) and IV.E (cholestyramine) and will be hindered by the complexity of the health care and health insurance industries. The PFAS Fund is not actively pursuing Strategies IV.C-D at this time.

V. ADDITIONAL NEEDS IDENTIFIED BY THE AGRICULTURAL COMMUNITY

The PFAS Fund Advisory Committee held a meeting on January 16, 2025, during the Agricultural Trades Show. The session was specifically advertised as an opportunity for members of the public to provide feedback on DACF's response to PFAS in agriculture. Following presentations by the PFAS Response Program and the PFAS Fund, only one member of the public spoke. They inquired about whether phytoremediation is an area of interest for the PFAS Fund's research program and were advised that it is.

During the Agricultural Trades Show in 2025 and previous years, the PFAS Fund Advisory Committee observed that attendees are reluctant to provide feedback to DACF in an open forum, especially if there is no document or concrete proposal to respond to. Accordingly, during its October and December 2025 meetings, the PFAS Fund Advisory Committee decided not to solicit public feedback during the 2026 Agricultural Trades Show. Instead, a public meeting will be organized after the submission of this report to the Legislature. The meeting will be promoted as an opportunity for the public to examine and reflect on the PFAS Fund's work as documented herein.

Future Funding Needs

The PFAS Fund implementation plan was developed through a public process that included farmers on the PFAS Fund Advisory Committee and all four subcommittees. The agricultural community and other members of the public also provided input on the plan through public meetings held during the strategic planning process. The plan highlights the anticipated need for long-term funding that is not included in the plan's projected budget. These costs include funding for Strategy II.B, ongoing management/stewardship of properties acquired by the PFAS Fund; Strategy II.C, payments for implementation of stewardship practices; Strategy III.A, permanent research staff; Strategy III.B, operation of a research station; Strategy IV.D, medical care; and Strategy IV.F, permanent mental health support for the agricultural community.

The PFAS Fund's work related to mental health support (Strategy IV.F) could potentially be augmented and made permanent by work to be carried out under LD 2144, Resolve to Establish the Working Group to Prioritize Wellness and Mental Health Resources for Heritage Industries. It was signed by Governor Mills on March 23, 2026. The working group is tasked with reviewing existing mental health and wellness resources available to individuals in Maine's heritage industries (agriculture, logging, and fishing), identifying gaps in the provision of services and barriers to accessing existing resources, examining successful models from other states and jurisdictions, developing recommendations for establishing sustainable funding mechanisms and service delivery models, and exploring opportunities for public education to reduce stigma around mental health issues and increase awareness of mental health services. The working group will have a broader scope and longer time horizon than the advisory panel being assembled to support PFAS Fund Strategy IV.F. The two efforts are distinct but complementary.

VI. WHAT FUNDS HAVE BEEN DISPERSED AND FOR WHAT PURPOSE?

Through P.L. 2021, ch. 635, sec. XX-7, the Legislature transferred $60 million from the unappropriated surplus of the General Fund to the Department of Agriculture, Conservation and Forestry, Office of the Commissioner, Other Special Revenue Funds account for the purposes as provided under the 7 M.R.S. §

320-K(4). These purposes have been further developed as described in the PFAS Fund implementation plan and the rules at 01-001 C.M.R. ch. 400-408.

The PFAS Fund implementation plan includes a five-year projected budget of approximately $70 million. The difference between the State allocation and the projected need is anticipated to be met through other funds, such as grants. In fact, half of the gap has been filled with a $5 million grant from the U.S. Department of Agriculture (USDA), received in September 2023.

Encumbrances and Expenditures

Of the $60 million of State funds allocated by the Legislature to the PFAS Fund, $28.1 million has been encumbered, meaning it has been set aside for a particular use through a contract or similar mechanism. Encumbrances include $24.2 million in support for impacted producers, such as income replacement payments, infrastructure investments, and professional services (e.g., business planning to help a farm shift its enterprise). Funds are also encumbered for land purchases ($2.9 million) and health studies and services ($1 million).

As of the end of January 2026, the PFAS Fund has expended about $2.5 million State dollars in the following categories:

- $1,975,825 in direct support to producers, e.g., grants for administrative costs, income replacement, and professional services, as well as funding for the PFAS Navigator program,
- $413,664 for land purchase and stewardship costs,
- $97,628.86 for health-related expenses, e.g., support for Maine CDC's oversight of blood serum testing, laboratory analysis, contractual services from Vermont Farm First, Maine Mobile Health, and NAMI Maine, and
- $23,494 in administrative costs, e.g., STACAP and DICAP (indirect), legal notices, printing, postage.

The $5 million awarded to DACF by USDA is fully accounted for: $3 million in research grant awards, $1.1 million in financial assistance to producers (income replacement and business planning), $559,000 to Maine CDC for lab equipment and analysis and production of ag-focused educational materials, as well as salary and fringe for the PFAS Fund research administrator and travel.

Staff

The PFAS Fund is administered by a director and two public service coordinators (PSC-I), one is responsible for the land acquisition and stewardship program, and one is responsible for the research program. The director and the Land PSC-I are supported by general funds. The Research PSC-I is supported by the USDA grant via a fiscal order through June 2027. DACF anticipates that there will be a need for someone to oversee the process of granting research funds, managing scientific communications, and other activities through at least State Fiscal Year 2029.

A new position, Management Analyst II, was created in the State Fiscal Year 2026 budget and filled in March 2026. The Management Analyst will be responsible for financial administration of the PFAS Fund's $65+ million budget, as well as overseeing, evaluating, and integrating operational practices and procedures related to the development and implementation of the PFAS Fund's four primary program areas: financial and technical assistance, land purchases and stewardship, research, and health.

VII. ADVISORY COMMITTEE

Per 7 M.R.S. § 320-L(1), the PFAS Fund Advisory Committee was established to make recommendations to DACF regarding the administration of the PFAS Fund. The current members of the PFAS Fund Advisory Committee are:

1. Senator Stacy Brenner, co-chair (appointed by the President of the Senate)
2. Senator Richard Bennett (appointed by the President of the Senate)
3. Representative Daniel Ankeles, co-chair (appointed by the Speaker of the House of Representatives)
4. Representative Randall Hall (appointed by the Speaker of the House of Representatives)
5. Department of Agriculture, Conservation and Forestry Commissioner Amanda Beal (ex officio)
6. Department of Environmental Protection Commissioner Melanie Loyzim (ex officio)
7. Department of Health and Human Services Deputy Director Nancy Beardsley (DHHS Commissioner Sara Gagné-Holmes' designee)
8. University of Maine Dean Diane Rowland (appointed by the President of UMO)
9. Farm Service Agency Deputy State Executive Director Lucia Brown (expert in agricultural finance and lending; appointed by Commissioner Beal)
10. James Buckle (farmer; appointed by Commissioner Beal)
11. Steven Crane (farmer; appointed by Commissioner Beal)
12. Jenni Tilton Flood (farmer; appointed by Commissioner Beal)
13. Katia Holmes (farmer; appointed by Commissioner Beal)
14. Adrienne Lee (farmer; appointed by Commissioner Beal)
15. Maine Public Health Association Executive Director Rebecca Boulos (public health expert appointed by Commissioner Beal)

The PFAS Fund Advisory Committee met four times in 2025:

- **January 16:** The Advisory Committee hosted a session at the Agricultural Trades Show to hear updates from the PFAS Fund and PFAS Response Programs and solicit public feedback*. In person in Augusta and via Zoom.*

- **March 5:** The Advisory Committee met to discuss and, ultimately, recommend that Strategy IV.E be revised such that funds initially set aside for a clinical trial be redirected toward the dissemination of information about protocols for using the cholesterol-lowering drug cholestyramine. *Via Zoom.*

- **October 7:** The Advisory Committee discussed and approved expanding the use of the PFAS Fund to provide match to research proposals funded by external grantmaking entities when that entity's priorities align with the PFAS Fund's priorities and when it uses a rigorous peer review process comparable to the Fund's process. *In person in Augusta and via Zoom.*

- **December 15, 2025**: The Advisory Committee met to discuss LD 582, *An Act to Require Health Insurance Carriers to Provide Coverage for Blood Testing for Perfluoroalkyl and Polyfluoroalkyl*

Substances. The bill would require insurance carriers to provide coverage for PFAS testing when a provider deems it medically necessary healthcare; it would expand access to PFAS blood serum testing statewide. *Via Teams.*

Meeting recordings and agendas are available here.

VIII. RECOMMENDED LEGISLATION

DACF does not recommend any legislative changes at this time. It will contemplate, however, a statutory fix that would allow the PFAS Fund to purchase land encumbered with a conservation easement without having to seek court approval.

Appendix A: Progress Toward Implementation of the PFAS Fund's Strategies

Direct Support Strategies	
Status	Strategy
✓	**I.A:** Provide up to 24 months of lost income to producers who had to reduce or cease sales due to PFAS contamination.
✓	**I.B:** Provide technical assistance and professional services to assist producers in navigating options for remaining viable despite the presence of PFAS.
✓	**I.C:** Establish one or more "PFAS Response Navigators" to guide impacted farmers through the recovery process. The primary role of the PFAS Response Navigators will be to work with PFAS-impacted commercial farmers to help identify and connect with support programs for which they are eligible.
✓	**I.D:** Establish a mechanism to compensate farmers for the time they spent responding to PFAS contamination, separate from routine farm operations.
✓	**I.E:** Provide support for infrastructure projects intended to help impacted farms transition their production practices and that are valued above $150,000 (DACF has an existing program to support projects valued up to $150,000).
✓	**I.F:** Reduce lenders' liability and bear some of the costs associated with obtaining new loans for farms impacted by PFAS contamination. Also, develop educational materials for lenders.
✓	**I.G:** Provide support for public relations and marketing at various points along the PFAS trajectory (e.g., crisis communications, emerging from crisis). Also, in its own communications, DACF will emphasize farms' success stories.
✓	**I.H:** Develop a "PFAS Response Kit." It will be a physical binder with information about all the resources supported by the PFAS Fund, as well as information about other resources available to farmers impacted by PFAS contamination. A PDF version will also be available on DACF's website.
Land Acquisition and Stewardship Strategies	
Status	Strategy
✓	**II.A:** Purchase PFAS-contaminated land from willing sellers at fair market value as if there were no PFAS.
*	**II.B:** Manage acquired properties for public purposes (e.g., conservation, carbon sequestration) with a goal of returning the land to private ownership for agricultural production whenever possible.
X	**II.C:** Establish a program to make payments to commercial farmers who take PFAS-impacted land out of production and agree to manage it in a manner that achieves conservation or other policy goals.
*	**II.D:** Produce and distribute informational materials to professionals involved in real estate transactions and to municipal offices. Information may include basic information about PFAS compounds: what they are, where they are found, why they

	are concerning, and how they can be managed. Also, a link to the Maine Department of Environmental Protection's (DEP) PFAS investigation map, information about required residential property disclosures, and general information about like-kind exchanges under Internal Revenue Code Section 1031 (allowing business owners to minimize capital gains taxes).
Research Strategies	
Status	Strategy
✓	**III.A:** Establish a competitive research grant program to support scientific research to inform on-farm management decisions.
*	**III.B:** Establish a research station on a property purchased by the PFAS Fund under Strategy II.A.
*	**III.C:** Compile and share scientific information resulting from the competitive research grant program (e.g., through a data portal and a bibliography/literature repository).
Health Strategies	
Status	Strategy
✓	**IV.A:** Establish a program to pay for costs not otherwise covered by health insurance for PFAS blood serum testing for persons who were exposed to PFAS through the land application of residuals in Maine.
✓	**IV.B:** Maine Center for Disease Control and Prevention (Maine CDC) will initiate rulemaking to make PFAS blood test results reportable under the Notifiable Disease Reporting Rule or designate PFAS test results reportable as an emergency condition.
X	**IV.C:** Develop a program to cover the cost of medical monitoring, when such monitoring is not already covered by existing health care insurance, in eligible persons whose PFAS blood serum levels indicate the need for enhanced medical monitoring (i.e., currently, blood serum levels above 20 nanograms per milliliter (ng/mL) according to the National Academies of Sciences, Engineering, and Medicine).
X	**IV.D:** Explore options to provide medical care for certain PFAS-associated conditions for individuals with elevated blood levels of PFAS and who were exposed to PFAS through the land application of biosolids. Options to consider are providing eligible individuals with lifetime access to MaineCare; enrolling eligible individuals in the Maine State employees' health plan; and if the Attorney General succeeds in the lawsuit filed in April 2023 against PFAS manufacturers, setting aside some of the settlement money for medical care for people with conditions linked to PFAS exposure. *Notably, no budget is currently associated with this strategy. It is included to highlight that the public health impacts of PFAS exposure exceed the scope of the PFAS Fund.*
✓	**IV.E (amended):** Support PFAS body burden reduction by further documenting the clinical application of cholestyramine through publication of a case series, and convening a panel to further vet, optimize, and publish a protocol for administration of cholestyramine for PFAS body burden reduction.

*	**IV.F:** Support the mental health and well-being of farmers and residents of Maine who have been adversely impacted by PFAS contamination.
✓	**IV.G:** Support the development and distribution of materials to educate the public and clinicians about sources of PFAS exposure and associated health issues, as well as clinical guidance.
✓	**IV.H:** Support a study of farmers and farm workers to investigate whether certain levels of PFAS-contaminated soil represent a significant source of ongoing exposure to people who work with soil.
Key: ✓ = Established, * = In Progress, X = Not Started	

Appendix B: Farm First Report

Recommendations for a Mental Health Support System for Farmers and Residents Impacted by PFAS Contamination

A report prepared for the

Maine Department of Agriculture, Conservation and Forestry by

FarmFirst

June 10, 2025

Background

In the 1970's, to reduce the impact of sewage effluent on the health of rivers, the Clean Water Act prompted municipalities and industries to develop wastewater treatment processes that enabled solids to be separated from effluent. Those solids needed a place to go, and farmers were encouraged to spread them on their fields as they were a natural source of plant nutrients or fertilizer. The existence of a class of chemicals in the solids, known as PFAS, was not known at the time. Hundreds of thousands of cubic yards of this sludge were subsequently spread on Maine farm fields between 1989 and 2016. Additionally, many non-farmer residents have since been exposed to PFAS through contaminated drinking water from wells and other sources.

PFAS are a group of thousands of varieties of man-made chemicals known as Per- and Polyfluoroalkyl Substances. The U.S. Agency of Toxic Substances and Disease Registry reports that epidemiological evidence demonstrates associations between increases in exposure to (specific) PFAS and human health effects, including: increases in cholesterol levels (PFOA, PFOS, PFNA, PFDA); lower antibody response to some vaccines (PFOA, PFOS, PFHxS, PFDA); changes in liver enzymes (PFOA, PFOS, PFHxS); pregnancy-induced hypertension and preeclampsia (PFOA, PFOS); decreases in birth weight (PFOA, PFOS); and kidney and testicular cancer (PFOA).[1]

Social science research demonstrates that exposure to toxic environmental contamination is associated with anxiety and other mental health problems. Multiple studies and systematic reviews have documented these connections across different types of contaminants and populations. A comprehensive systematic review published in 2021 specifically examined the psychological health consequences of chronic environmental contamination (CEC). The meta-analyses conducted in this review found small-to-medium effects of exposure to environmental contamination on anxiety, general stress, depression, and PTSD.[2]

In addition to anxiety and depression that results from the stress of not knowing how exposure to contaminants may affect your future health, sometimes there is a direct biological mechanism by which contaminant exposure impacts mental health. For example, Persistent Organic Pollutants present in foods can cause various health problems, including

[1] https://www.atsdr.cdc.gov/pfas/about/health-effects.html

[2] Schmitt HJ, Calloway EE, Sullivan D, Clausen W, Tucker PG, Rayman J, Gerhardstein B. Chronic environmental contamination: A systematic review of psychological health consequences. Sci Total Environ. 2021 Jun 10;772:145025. doi: 10.1016/j.scitotenv.2021.145025. Epub 2021 Feb 4. PMID: 33770891; PMCID: PMC8091498.

endocrine disruption, which can influence mental health through hormonal pathways[3]. PFAS is also suspected to have hormonal impacts.

Obviously the first step in addressing the problem of PFAS continuation is to directly mitigate the source of exposure. Once direct exposure has begun to be addressed, it is important to attend to remediating the mental health impacts of exposure. Part of addressing mental health impacts involves apprising farmers and other landowners of the specific remediation steps to be implemented and their timing. Unaddressed mental health impacts – in addition to acutely impacting the functioning of those impacted – can lead to chronic health conditions down the road. Further, unaddressed anxiety and depression can immobilize impacted individuals resulting in their not taking needed steps to address and limit their future exposure.

For these reasons, the Maine PFAS Fund enlisted the support of Farm First to inventory and assess the capacity of local groups to address the mental health impacts of PFAS contamination, identify service gaps and make recommendations about how to best address those gaps and implement a comprehensive mental health support system for those impacted by PFAS. Farm First is a Vermont-based program started by the State of Vermont in 2009 to address the mental health concerns of farmers. Farm First is considered a national leader in providing mental health services to farmers and has been one of the lead organizations in the USDA's program to address farmer mental health in the states that comprise their northeast region.

The Maine PFAS Fund seeks to create a support system that would be comprised of the following components:

1. Individual 1:1 supportive counselling
2. A team of mental health providers to provide the 1:1 counseling, trained in the understanding the unique characteristics of farming and the associated health and mental health vulnerabilities, including those caused by exposure to contaminants.
3. A trained peer support network supported with ongoing supervision.
4. Web-based resources to assist farmers address, and where possible remediate, underlying sources of stress
5. And possibly,
    a. a 24/7 hotline, and
    b. trainings for agricultural service providers

[3] Guo, W., Pan, B., Sakkiah, S., Yavas, G., Ge, W., Zou, W., Tong, W., & Hong, H. (2019). Persistent Organic Pollutants in Food: Contamination Sources, Health Effects and Detection Methods. *International Journal of Environmental Research and Public Health*, *16*(22), 4361. https://doi.org/10.3390/ijerph16224361

Methodology

Farm First conducted interviews to inventory the capacities, interests and current contributions of organizations providing PFAS stress support in Maine and identify gaps that exist. To accomplish this, Farm First designed an instrument to guide these interviews, which consisted of the following questions:

1. Could you briefly orient me to the overall work of your organization?
    a. What is your mission?
    b. What are your programs, or areas of active work?
    c. What does your work look like? Who do you serve? What do you do?
    d. How many staff do you have?
2. What is your role in the organization?
3. Does your organization currently provide any stress management support or mental health treatment to farmers? If so, please describe.
4. What, if any, role or roles do you think your organization should play in addressing the stress that farmers and others experience as a result of PFAs contamination?
5. Do you have existing staff who could carry out that work?
    a. If so, what type of background/qualifications do they have?
    b. Where are they located?
    c. Do you/they currently have funding to do this work?
    d. What is the current status of any such funding?
6. If we plan an initial get-together of interested groups that may be able to help with this effort, what suggestions do you have for how we best use our time together? What are the next steps that we need to iron out to move forward?
7. Who would be the best person to represent your organization at such a meeting?
8. Are there other groups of which you're aware that you think should play a particular role in addressing the stress resulting from PFAS contamination? [probe (when comfortable): Why? What's your confidence level in how effective they would be?]
9. Beyond the purview of your organization, what ideas, if any, do you have for how we best help farmers or others who are experiencing stress resulting from PFAS contamination?
    a. With existing groups?
    b. In an ideal world, what would the best fix be (to the mental health impact of PFAS, not the obvious clean-up of PFAS)?

Each one-on-one interview lasted approximately 1 to 1-1/2 hours.

After the interviews were completed, Farm First compiled a summary of the results. The results then helped frame the creation of an agenda for a planned gathering of all the groups to collectively share and learn what one another was doing, identify gaps in services that needed to be addressed and prioritize the groups' perspective on recommendations for further action.

Follow-up Research

To address service delivery gaps identified at the group meeting, Farm First sent surveys to 7.500 mental health providers across the state of Maine. Providers were surveyed to identify their interest in and capacity to provide mental health support to those impacted by PFAS. Questions included:

1. Are you interested in joining a core network of mental health clinicians dedicated to serving PFAS-impacted farmers and others?
2. If part of the network, would you be willing to accommodate and schedule an occasional referral to your practice within a week or two of the time of referral?
3. If part of the network, would you be willing to accommodate and schedule an occasional referral to your practice within a week or two of the time of referral?
4. If a farmer does not have commercial insurance are you able to accommodate such referrals with any of the following (Medicaid, Medicare, Sliding Fee)?
5. Anyone participating in this network, must agree to attend a 2- hour virtual training to better understand the unique stressors faced by farmers and others impacted by PFAS, and to learn about the fundamentals of PFAS contamination. Would you be willing to attend such a training if it was provided for free?
6. As a way to better meet patients where they are at and reduce stigma, would you be open to offering periodic check-ins, for example, a 15 minute phone call, with patients if these could be partially billable? We're currently working out the details.
7. As a way to better meet patients where they are at and reduce stigma, would you be open to offering periodic check-ins, for example, a 15 minute phone call, with patients if these could be partially billable?
8. Would you be interested in taking on a generalist social work role that includes learning about farm-related and PFAS resources, so you could offer both counseling AND resource support to farmers as needed?

Results

Both the individual meetings and the group gathering produced useful information that begins to paint a picture of services currently being provided to mitigate the stress of individuals impacted by PFAS contamination, as well as current gaps in services.

Current Capacity and Provision of Mental Health Support for Individuals Impacted by PFAS

Considerable work is currently being done by Maine organizations to address the stress impacts of PFAS contamination. Through our individual interviews, we learned the following.

University of Maine Cooperative Extension (UMCE)

UMCE is a cornerstone of Maine's agricultural infrastructure, with 16 offices statewide and a mission spanning research, education, and service. Their farmer-focused offerings include a four-session "Farm Coaching" program tailored to support decision-making and farm communication. While not clinical in nature, these efforts do support overall wellness; a main goal includes listening. These are led by trained facilitators, and they will often refer out for mediation, if necessary. UMCE is active in

statewide PFAS service provider calls and is well-positioned to educate other providers on the broader impacts of PFAS contamination. They are available to create, collaborate, and distribute farmer education materials (pamphlets, wellness materials, etc.) and they are well connected to the Maine Farmer Resource Network.

Maine Public Health Association (MPHA)
MPHA is a statewide public health membership organization with a strong policy and advocacy focus. While they do not provide direct services their focus includes advocacy (policy), and coalition building and education (conferences, presentations, workshops, etc.). More recently, MPHA is exploring the intersection of climate and mental health, creating potential alignment with PFAS-related work. There is an opportunity to incorporate PFAS into their existing education and advocacy framework. They are also open to running more group meetings with smaller subgroups, such as farmers, social workers, geographical breakouts, etc., to see where there may be alignment in addressing mental health support for farmers.

Maine Organic Farmers and Gardeners Association (MOFGA)
MOFGA is the oldest and largest statewide organic organization in the United States; their mission is to increase organic practices across the state. Within MOFGA are 6 farm programs including crop speculation, dairy, markets, beginner farms, established farms and the journey program. There are over 45 staff, and they do certification and outreach. They continue to advocate at state meetings regarding PFAS and hope to build workshops for state toxicologists as PFAS research unfolds. MOFA has demonstrated innovative responses to PFAS by piloting a "wellness stipend" program (in partnership with Maine Farmland Trust), helping farmers access clean water, food, transportation, and childcare. MOFGA is also a regular contributor to statewide PFAS coordination efforts and monthly service provider meetings.

Maine Farmland Trust (MFT)
MFT is a statewide non-profit with approximately 40 staff who provide broad support to farmers across Maine. They provide business support to farmers, including easement stewards, and development rights (Buy Protect Sell program). They partner with MOFGA to provide PFAS wellness stipends. They also organize popular wellness and leadership retreats, offering a stipend for farm replacement labor so that farmers can attend. Like others, they refer farmers to external counseling services when needed. They are well connected to farmers in their outreach work and would be able to share any mental health programming updates.

Maine Office of Behavioral Health (OBH)
OBH operates within Maine's Department of Health and Human Services and supports community-based behavioral health through prevention, treatment, and recovery initiatives. While not focused specifically on agriculture or PFAS, they offer broader programs like StrengthenME, which could potentially be adapted or expanded to serve the farming population. They also manage the Community Health coalitions which are community health workers co-located throughout the state in hospitals, medical centers, community centers, etc. to support ongoing initiatives from OBH. They

have a very diverse list of community partners and also represent at the monthly PFAS service provider calls.

Dr. Rachel Criswell and Dr. Abby Fleisch (NIEHS Grant Recipients)
Dr. Criswell is a primary care provider at a rural health care practice part time and also conducts research. Dr. Fleisch is an endocrinologist practicing one day a week, and the rest of the time she does primarily research. These clinician-researchers are collaborating on a federally funded study exploring PFAS blood levels and associated mental health impacts on Maine farmers. Their recent survey results (published in May 2025) reinforce the community's expressed desire for in-person counseling, peer support, system navigation, and financial assistance for mental health services. Both medical providers are dedicated to the wellbeing of farmers' physical and mental health in addition to educating other providers and systems about PFAS testing and interpreting results.

Convening of Organizations

Farm First convened a gathering of the above organizations and individuals to help each of the entities gain a better understanding of one another's work, to illicit their ideas about how to best approach providing mental health services to those impacted by PFAS, and to identify gaps in providing such services. The gathering was hosted through a videoconference to ensure the maximum likelihood that as many could attend as possible. Attendees included:

1). Dr. Abby Fleisch (NIEHS grant recipient)
2). Beth Valentine (Director of the PFAS fund)
3). Sarah Wilcox (Administrator of the PFAS fund)
4). Polly Shyka (UMCE extension consultant)
5). Leslie Forstadt (UMCE Extension)
6). Tricia Rouleau (MFT)
7). Ryan Dennet (MOFGA)
8). Kristen McAuley (OBH)
9). Steve Dickens (Director of Research, Farm First)
10). Angela Shea (Licensed Independent Clinical Social Worker, Farm First)

The following recommendations emerged from the group meeting:

1. **Establish a Universal, Barrier-Free Support System**
   Create an accessible system that offers a wide range of services, including routine check-ins, professional counseling, and peer support. This system should be inclusive, adaptable, and tailored to farmers' specific needs.

2. **Expand Outreach and Community Messaging on PFAS**
   Increase awareness and education around PFAS contamination and its impact on physical and mental health, amongst farmers, landowners and service providers. Clear, empathetic communication is critical to reducing stigma and encouraging farmers to seek support.

3. **Leverage Mobile Health Services (e.g., Maine Mobile Health Program)**
   Bring mental health services directly to farmers through mobile units and on-site visits. Meeting farmers where they are is key to reducing access barriers and increasing participation.

4. **Ensure Universal Access for All Farmers (not just PFAS impacted)**
   Mental health services should be available to all farmers, regardless of location, background, or operation size, ensuring equity across the agricultural community.

5. **Promote Advocacy and Action as Paths to Healing**
   Empower farmers by supporting their involvement in advocacy efforts. Engaging in collective action can foster resilience, purpose, and community connection.

6. **Train More Licensed Counselors in Agriculture and PFAS-Related Issues**
   Increase the number of mental health professionals who are specifically trained to understand the unique challenges of farming life and PFAS-related trauma. This will lead to more informed, relevant, and effective care.

The recommendations of the groups are closely aligned with many of the goals set forth by the Maine PFAS Fund.

Follow-up Research

To address service delivery gaps identified at the group meeting, Farm First conducted research to identify additional parties with whom it could be advantageous to partner. We engaged with a variety of organizations and individuals identified as current or potential partners in supporting farmers affected by PFAS. The following entities represent key voices and valuable resources in the field:

Maine Mobile Health Program (MMHP)

Maine Mobile Health is a community health center and Federally Qualified Health Center (FQHC) that provides medical care, mental health counseling, referrals, education, and other support services to farmworkers across the state. Their Community Health Workers (CHWs) are fluent in Spanish, Haitian Creole, and Jamaican Patois, enabling them to meet the diverse linguistic and cultural needs of the populations they serve. Under new leadership with CEO Amelia Rukema, MMHP has expressed interest in collaboration around resource development and service integration.

New Approaches

Founded by Hannah Curtis, LCSW, New Approaches is a private mental health practice offering both in-person and telehealth therapy for adults. In 2022, they partnered with the Maine Farm and Ranch Stress Assistance Network to provide free therapy sessions to farmers using grant funding. With a team of seven fully licensed and experienced therapists, they continue to be open to partnerships. Their offices are located in Falmouth and Brunswick, Maine.

Individual Farmer Advocate:

Adam Nordell is a former organic farmer whose family farm was directly impacted by PFAS contamination. In 2022, Adam and his family made the difficult decision to leave their farm after more than a decade of building it. Since then, he has become an outspoken advocate for PFAS-affected farmers through his work with **Defend Our Health**, a nonprofit focused on environmental public health. Adam emphasizes the urgent need for mental health services in concert with physical health interventions, such as blood testing, accessible medical care, education for providers, and long-term health monitoring for those exposed.

Community Health Workers

Ben Hummel, working with the Maine CDC's Chronic Disease Program, focuses on the state's Community Health Worker initiative. With a background in farming, Ben brings relevant insight into how CHWs—who often share lived experience with those they serve—can be integrated into multidisciplinary teams in settings such as healthcare clinics, FQHCs, and community centers. This model holds potential for adaptation in supporting PFAS-impacted farming communities.

Maine Coast Fishermen's Association (MCFA)

The MCFA is an industry-based nonprofit committed to restoring the fisheries of the Gulf of Maine and supporting the resilience of Maine's fishing communities. Their model of community-led advocacy and industry-specific support offers a promising parallel for PFAS response efforts in the farming sector.

Survey of licensed mental health providers

Farm First surveyed 7,500 clinicians throughout the state of Maine to determine if any were interested in becoming part of a PFAS provider network. We received responses from 120 interested clinicians.

- 82 indicated a definite interest in being a part of a trained group to provide support to PFAS-impacted individuals; another thirty-two indicated a possible interest.
- 87 indicated that they would be willing to accommodate and schedule an occasional PFAS-related referral in their practice within a week or two of the time of referral.
- Knowing that many farmers do not have commercial health insurance, we asked if they were able to accommodate such referrals.
    - 47% indicated that they could accept Medicaid,
    - 41% indicated that can accept Medicare
    - 82% indicated that they could accommodate such individuals with a sliding fee, generally in the $30-$70 per session range.
- 90% indicated a willingness to attend a 2-hour virtual training to better understand the unique stressors faced by farmers and others impacted by PFAS, and to learn about the fundamentals of PFAS contamination.
- 80% indicated that they would be willing to provide 15-minute check-in calls in addition to the traditional 50-minute hour.

- Next, we inquired if clinicians would be willing to assume more of a traditional social work role that included learning about farm-related and PFAS resources and offering both counseling *and* resource support to farmers.
    - 48% indicated that they would, and another 43% indicated that they may.

It should be noted that further analysis will need to be done on the final numbers as it appears that some of the clinicians licensed in Maine may have primary offices elsewhere. A report summarizing the above survey responses is provided in Appendix A.

Discussion

Farm First interviewed a range of agricultural nonprofits and state agencies in Maine that are engaged in thoughtful, creative, and deeply committed work in response to the PFAS contamination crisis affecting the farming community. These organizations are embedded in the communities they serve and provide crucial technical assistance, education, and public health support to Maine farmers and their families. Their collective impact is substantial and meaningful. The following is a synopsis of their strengths and weaknesses to provide mental health support to those impacted by PFAS.

Each organization brings a wealth of innovative programming to support PFAS-impacted farmers. Notable strengths include:

- **Creative use of community health workers** (CHWs) to build trust and deliver services in accessible, non-clinical ways. are co-located in a variety of settings, such as primary care office, Federally Qualified Healthcare Centers, and community centers. They work with multi-disciplinary teams, offering support and building trust through their shared lived experiences and connecting people to needed resources.
- **Distribution of wellness funds** that provide flexible, low-barrier financial support for needs like clean water, transportation, and childcare. The funds are currently provided in a flexible manner that allows recipients to determine how to best use the money to meet their wellness needs.
- **Providing broad access to educational tools, materials and forums** to raise awareness about PFAS-related risks and resilience strategies. A number of organizations are involved in educating farmers and the general public about PFAS contamination.
- **Farm coaching and communication support** to assist farms families with key decision-making. As a central component of farm coaching involves active listening, the program provides important non-clinical support to farmers experiencing stress.
- **Direct connection to a highly engaged audience of farmers,** ensuring programs reach those most in need. Many of the organizations have established relationships with farmers and farming communities, making it easier to share information and resources more efficiently.
- **Wellness leadership retreats** offer farmers the opportunity to leave the farm to gain important skills and experience a respite.

All the above programs have been well attended and highly valued. Further supporting and strengthening those services, as well as facilitating the coordination of services across organizations will enhance support to PFAS impacted individuals.

While these services provide an important foundation for supporting those impacted by PFAS, they do not address all of the identified needs for providing mental health support to PFAS impacted individuals. A study funded by the National Institute of Environmental Health Sciences (NIEHS)[4], surveyed 150 PFAS-impacted farmers about interventions that would help them manage stress. The top responses included the need for:

- In-person counseling
- Peer support
- Help navigating available services
- Financial assistance to access these resources

Recommendations from our gathering of Maine groups closely mirrored these responses, identifying the following service gaps:

- A universal, barrier-free support system that includes:
    - Routine supportive check-ins
    - Professional counseling
    - Peer Support
- Training more counselors to understand the nature of farming and PFSAS contamination.

While the existing groups whom we gathered for a meeting provide a range of critical services, none provide direct professional counseling. And although Community Health Workers provide what could be construed as a form of peer support, there is no highly trained core network of PFAS impacted persons who provide peer support. Further, while there are navigators who can assist those impacted by PFAS access available services, the current program has received mixed reviews and includes navigators from other states, often working remotely. There is no clear one-stop program or shop in Maine to which PFAS impacted individuals can turn.

Addressing these limitations and filling the missing gaps can significantly strengthen the service delivery and safety net available to individuals impacted by PFAS contamination. Our survey of licensed mental health providers across the state provides ample evidence that we can assemble a core group of trained clinicians to provide support to PFAS impacted individuals.

The following section contains a set of recommendations for both building upon current strengths and meeting unmet needs.

[4] Reported by Dr. Abby Fleisch

Recommendations

1. Develop a core group of licensed counselors to provide mental health support to PFAS impacted individuals.

Both the recommendations of the Maine groups working on PFAS issues and the NIEHS survey of impacted farmers identify providing professional counseling as an important need. Although impacted individuals could be referred to any licensed mental health counselor, unaffiliated with the PFAS program, we suggest that it would be better to work with a smaller group of specially trained counselors who guarantee scheduling availability to PFAS impacted persons. Many clinicians in private practice have limited knowledge about the issues that uniquely impact farmers or that concern PFAS contamination. Our experience is that when counselors lack familiarity with the common issues facing farmers, many seeking help become frustrated with and curtail treatment. Consequently, ensuring the availability of a core group of trained counselors who understand both the unique characteristics of farming and the nature and consequences of PFAS contamination would be a better approach.

A smaller group of clinicians can also be better integrated into the PFAS program. We know of two successful models for this. The first is to contract with clinicians – most likely social workers -- who are open to *both* providing clinical services and learning about and providing key farm and PFAS resource information to impacted individuals. The second model is to pair a counselor with a resource person when responding to a PFAS-impacted individual seeking help. Either way, these approaches greatly reduce the stigma that may otherwise be associated with seeking "psychotherapy". Both Farm First in Vermont and NY FarmNet in New York State have successfully deployed these models. Farmers often initially call looking for resource information (at Farm First, about 30% of farmers ask for mental health support up front). However, it is in the context of providing that initial resource information that we can often engage the farmer and ask if they would also like us to check in periodically to provide support. Many take us up on that offer, and either the same person (in the example of an LICSW) provides that follow-up, or the resource person asks the farmer if they can introduce the farmer to another staff person who can provide more ongoing support (i.e., a mental health counselor). Such an integrated approach is not required but would be optimal.

The results of our survey of Maine mental health providers demonstrates that there is plenty of interest on the part of clinicians to be trained to understand issues that are unique to farmers and to understand the nature and resources available to help those impacted by PFAS. A large group of these clinicians also indicated an interst in serving in the dual capacity of a resource person and clinician. This allows for several options on how to best implement a provider support network. Including clinicians who are a part of the Maine Mobile Health Program (for supporting farmworkers) and New Approaches (both described in a previous section of this report) would also potentially provide certain advantages.

A mechanism must be worked out to both contract with and pay these clinicians. There are several models and approaches: providers can bill insurance on a fee-for-service basis; providers can be paid directly by the program on a fee-for-service basis; providers can be put on retainer for a limited number of hours; providers can become salaried employees of the program. There are many pros and cons of each approach. It is beyond the scope of this report to delve into such specifics. Farm First would be happy to further consult on these issues.

Depending on the specific approaches chosen, it may be important to create and maintain an online provider availability database. Farm First has developed and maintains such a database that could be used as a template. The database delineates provider availability, specialties, insurance coverage and contact information. Such a database is essential if a program hotline or referral service is developed (see recommendations below). Farm First has a complete list of providers surveyed and their contact information and locations, which will be provided upon request.

2. Train the core group of counselors in the issues commonly faced by farmers and in the basics of PFAS contamination and resources.

Once a provider network is developed, it is important that providers receive training to better understand the unique needs of their clients. The Invest EAP Centers for Wellbeing, the parent organization of Farm First, has provided counseling services to first responders throughout Vermont for years. Farm First provides similar services to farmers and farm workers. In both instances we've learned how important it is that providers understand the issues, stressors and characteristics unique to these constituencies. Before we did this, we received complaints about the service. Police officers were uncomfortable when told to remove their firearms; firefighters were dismayed when counselors seemed more enamored with the nature of their work than the issues that brought them to counseling; highly stressed farmers were incensed when counselors asked if they considered taking a vacation. Imagine a Maine farmer needing to explain to his or her counselor what PFAS is.

Training providers need not be a major, ongoing undertaking. One or two basic training workshops offered yearly is sufficient. The components of such training should include topics such as:

- Common stressors associated with farming
- Unique characteristics of farm lifestyles and family life
- High risk factors endemic to farming
- The nature and breadth of PFAS contamination
- Known health concerns associated with PFAS exposure
- Known biochemical pathways by which PFAS impacts hormones and emotions
- Appropriate evidence-based interventions for common mental health conditions associated with those impacted by PFAS contamination

These trainings can be carried out by a combination of the Maine groups already working on PFAS contamination, in collaboration with an appropriately licensed mental health provider familiar with these constituencies. In our experience, to encourage counselors to attend such trainings, it is useful to provide continuing education credits which providers need each year to maintain their license; qualified trainings must be provided by a licensed mental health counselor and should be pre-approved by the various professional licensing boards. Farm First has experience obtaining such licensing board pre-approval and providing similar trainings to mental health clinicians and medical providers and can assist with such trainings, if desired.

3. Develop and train a peer support network.

The recommendations of Maine groups working on PFAS issues and the NIEHS survey of impacted farmers identify the importance of building a peer support network for impacted individuals. People often find it useful to turn to others facing similar challenges for initial support. Talking with peers who have experienced similar challenges can be empowering, and can effectively break through the isolation that many, especially farmers, otherwise experience. In addition to providing peer support, peers can be an important avenue for connecting individuals needing professional help to one of the trained counselors. In our experience, many who first choose to obtain support from a peer later see a counselor. Peers can be trained to lower the stigma associated with obtaining professional help and encourage people to connect with a counselor.

For peers to be effective, it is important that they be properly trained and provided with ongoing supervision. Such training typically includes:

- How to recognize stress and signs of needing professional support, including depression, anxiety, suicide risk, and substance use;
- How to respond to stressed farmers and others, including providing active, non-judgmental listening that can facilitate further disclosure and reduce stress;
- Resources available to assist farmers with the most pressing and frequent agricultural concerns that underpin stress, and how to refer and connect farmers with those resources most effectively;
- Confronting stigma regarding farmers discussing stress and mental health;
- How to successfully connect a fellow peer with a professional counselor;
- PFAS specific resources.

No training can prepare people for all possible situations, and we have therefore found that ongoing supervision is important to ensure that mistakes are not made. Some peers will be very uncertain about what to do in certain circumstances; others may feel overly empowered and take on issues for which it is critical to involve a professional counselor.

A peer support network will work best when peers can easily find and connect with other peers. To achieve this in Vermont, Farm First established a GIS-based website for this purpose, whereby farmers can easily locate trained peers in their areas and enable them to directly contact those

peers. The website also provides important data such as how many farmers successfully connected with peers for support. That website could serve as a template for the creation of a similar site in Maine.

4. Continue to develop non-clinical wellness programming and support

Not everyone impacted by PFAS contamination will benefit from or desire professional support or even want to speak with a peer yet may still appreciate and could benefit from other wellness programming and support. Community Health Workers (CHWs) are a key part of Maine's health care system. Based in many communities, these workers conduct important education, outreach and provided resources to those in need. CHWs in conjunction with the Maine Office of Behavioral Health can be leveraged to provide non-clinical wellness support services to benefit PFAS impacted individuals. Like trained peers they can also provide vital outreach and connect individuals to licensed clinicians when needed. They can also provide direct support when licensed clinicians are not available or not needed.

Maine Farmland Trust (MFT) and Maine Organic Farmers and Gardener Association provide important wellness grants to impacted individuals. The flexible nature of the money provided to impacted individuals to enable them to better access the support they need has worked well. It makes sense to build upon and strengthen these efforts.

MFT has also led successful wellness and leadership retreats, which would make good sense to further support and develop.

5. Education

Educating people about the nature and extent of PFAS contamination, the health implications of exposure and what can be done to remediate contaminated soil and water are important components of addressing the mental health needs of those affected by PFAS. This was an important recommendation from our group gathering. Anxiety is one of the primary mental health responses that commonly results from exposure to contaminants known to cause health problems. People need accurate information. Without it, people may catastrophize, assuming the absolute worst. This can in turn lead to heighted anxiety, sleep deprivation and other chronic adverse health outcomes. Without accurate information, people can’t make informed decisions about how to best respond to their situation. Taking concrete appropriate action based on accurate information empowers people, making them less susceptible to depression.

All the Maine groups working on PFAS issues are doing important work in this regard. Obviously, the University of Maine Extension provides important leadership in this area and has particular expertise to provide important website-based resources. MFT, MOGFA, MPHA and OPB all provide important educational functions as well. Obviously, the work of Drs. Criswell and Fleish provides important data.

These existing education efforts should continue to be strengthened as an important component of meeting the mental health needs of impacted individuals.

An important educational component is to raise awareness about common mental health impacts and responses to exposure to environmental contamination, and to destigmatize seeking emotional support. One tool that Farm First has employed is to host community gatherings – where food and childcare are offered – and information about mental health impacts is provided and people can then share some about their own experiences. That way, people learn more about mental health impacts and learn from those like themselves that they are not alone in the reactions. Planning such community meetings in impacted areas is recommended.

6. Training

Providing mental health support to impacted individuals extends beyond what may be provided by clinicians, peers or the non-clinical wellness work described above. Many other professionals interact with impacted individuals with some regularity. This may include agricultural service providers, toxicologists, epidemiologists, well drilling contractors, hydrogeologists and others. If these individuals receive basic mental health first aid training – how to engage, actively listen to, support, assess and refer PFAS impacted individuals, they can become a vital component of the overall support network. Farm First has extensively trained service providers to support farmers in Vermont and in other states. These trainings have been highly valued and successful in empowering service providers to know how to react to and respond to distressed individuals whom they encounter in their work.

Conducting such trainings in Maine would be an effective way to further support and nurture the needs of impacted individuals and would add more connecting thread to the web of mental health service provision for PFSAS impacted individuals. Maine organizations involved in providing PFAS services, including the Maine Department of Agriculture, Conservation and Forestry, University of Maine Extension, MFT and MOFGA can all play vital roles in making this happen. This includes providing the outreach needed to engage these service providers in attending such a training and providing the technical knowledge and resource information with which these providers should be aware.

Community health workers and healthcare providers generally will benefit from specific training that apprises them of the existence of a proposed clinical support network, how to best provide direct emotional support to impacted individuals, and how to assess and refer individuals needing professional support to our core group of clinicians.

7. Advocacy

It is important for people who have been impacted by exposure to PFAS to feel some degree of agency to take action to improve their lives. Such agency prevents people from falling into despair and depression. Not everyone has the time, knowledge or skill to be an effective advocate themselves, but can still feel empowered if they know that someone is taking action on their behalf. MFT, MOGFA and MPHA all provide such advocacy and that work should continue, and where feasible, expanded.

8. Outreach

Each of the organizations mentioned above already does extensive outreach to various relevant constituencies. Such outreach will need to be expanded if recommended peer support and professional clinical support are provided. If impacted individuals are not aware of these services, they won't benefit from them. Further, it would not be wise to rely solely on agricultural service providers or existing groups doing PFAS education and outreach to identify farmers or residents impacted by PFAS who would benefit from counseling. Some impacted individuals may never have contact with such a group. Many impacted individuals may be loath to disclose their desire for counseling to those parties. That is why it is important for PFAS impacted individuals to learn directly about the availability of counseling support, and resources, and how they can be accessed.

We recommend that a coordinated plan be developed and implemented by all the involved groups to apprise impacted individuals of these services. Such a plan should include developing and implementing a public relations campaign.

An effective public relations campaign would include:

a. Creating an identifiable brand and logo for the PFAS support program
b. Regular articles and advertisements in both online and hard copy newspapers and newsletters, especially those frequently read by the targeted audience
c. A presence on all related organizations websites
d. Public service announcements on relevant radio, TV stations and social media
e. Promotion at events and conferences attended by impacted individuals.
f. Mass mailings to impacted individuals
g. Publicizing information at PFAS events.

9. Coordinate the activities of groups currently providing non-clinical support

As previously referenced, substantial work is already being done to support individuals impacted by PFAS contamination. Each organization doing such work provides a wide range of services and functions. Closer, ongoing coordination of these efforts, coupled with marrying those efforts to the proposed additions of a core group of clinicians and a peer support network would further strengthen the PFAS support network.

There are various ways to implement this, and adopting all these approaches would be the best. One approach is to create intentional spaces for communication and joint planning, and to provide expert facilitation. Another approach would be to identify and charge one organization to lead this effort, with a strategic goal to improve service delivery.

Several organizations are already engaged in the monthly statewide PFAS service provider calls, which offers a valuable platform for aligning services, sharing updates, and identifying emerging needs. Expanding the use of these calls to include focused discussions on mental health programming could enhance integration across these organizations.

Ongoing forums and workshops – such as the Land and Sea Wellness Forum – are crucial for deepening partnerships, disseminating new research, and fostering shared strategies. As data and understanding around PFAS-related impacts continue to evolve, creating a centralized process for information-sharing will help ensure that mental health support remains responsive and evidence-informed.

10. Create a one stop referral pathway

Ideally, those impacted by PFAS contamination will have one clearly defined place to turn for assistance. That doesn't necessarily mean creating a new organization. Rather, it could involve creating a single portal that then leads to the services offered by different organizations that are a part of the PFAS support network. The single portal may consist of an umbrella name for the support network, and a single phone number, website and email address. Either a single entity could be assigned responsibility for initially responding to calls, or those calls could be automatically routed to different groups that agree to host the phone number during certain hours of certain days. If desired, Farm First can provide information on how such programming can be accomplished.

Obviously, those who answer the phone must be fully trained and aware of all the PFAS support services available to connect the caller with the resources needed. A more robust approach, which is recommended if doable, is to create a partnered joint response system that connects callers with both resource information and counseling support. Such a system would require a clinical network comprised, more likely of social workers, who are willing to speak with callers outside of formal therapy sessions. Massachusetts, Vermont, and New York State have all implemented variations of this at different times with their farmer stress support programs. Massachusetts hired a social worker to respond to farmers calling for assistance; that individual can provide both counseling support and resource information. Vermont has employed a similar approach at times and has at other times has paired a social worker with a resource person such that the resource person makes the initial contact with the farmer but then introduces the counselor to provide "ongoing support" (not called "psychotherapy"); only farmers specifically calling for counseling are provided a direct referral to a licensed clinician. NY FarmNet sends out both a resource person and a social worker to meet farmers in need; their social workers help

with family issues and the like but do not provide counseling. Using a non-integrative approach, New Hampshire simply has their resource person refer farmers to a counselor in private practice.

An advantage of the integrated approach is that it not only provides direct access to both resources *and* counseling, but it does so in such a way to lower the stigma that may otherwise be associated with being referred to a psychotherapist. Farm First has found that there are many farmers who embrace the idea of someone checking in with them regularly to provide ongoing support who would otherwise be unlikely to accept a referral to a psychotherapist.

A hybrid system could be developed using the recommended trained group of licensed clinicians, if those counselors agreed to either serve more in a general social worker role, providing both resources and counseling support, and/or agreed to the notion of providing regular check-in calls that may last only 10-30 minutes rather than needing to provide a full 50-minute psychotherapy session. It is clear from our survey of Maine mental health providers that a significant number are interested in the possibility of serving in such a dual counselor/resource person role, as well as providing check-in calls to offer ongoing support outside formal therapy sessions.

If an integrated resource and counseling response cannot be implemented, there are multiple ways that impacted individuals may be directed to a trained clinician. Existing groups already providing support, agricultural service providers, community health workers and healthcare professionals can make such referrals. But again, it should be noted that this is suboptimal, will likely result in far fewer impacted individuals receiving counseling, and will necessitate much more frequent training of those parties to ensure such referrals continue to be made.

11. Develop and implement a Hotline.

The angst that potential exposure to contaminants can create is significant, and when combined with other life stressors, such as the multiple stressors and risk factors common to farmers, significant danger can exist for particular despondent and isolated individuals. Our experience is that such dangers are often more pronounced outside of regular business hours, when an individual may be exceptionally tired or may have been drinking in the evening. Providing access to a dedicated hotline for the program can greatly benefit such individuals and provide the sort of 24/7 backup that few counselors can offer. If a 24/7 farmer hotline is desired, one option is for Farm First to provide that in conjunction with our current clinical call center services, either under the name Farm First or a specially dedicated name by which the phone would be answered, such as Maine PFAS Support Line. The hotline could be set up in conjunction with the providers.

Conclusion

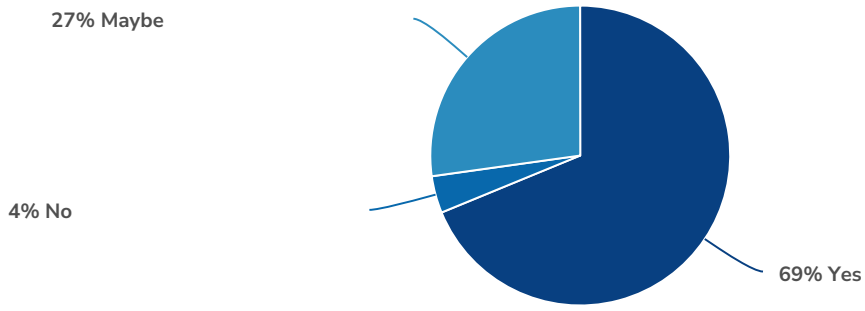
This report includes information and key recommendations that will enable Maine to develop and implement a comprehensive PFAS mental health support system. There are many Maine based organizations well positioned to help carry out components of this. Farm First will continue to be

available to the Maine PFAS Fund, if desired, to provide follow-up consultation and help implement any of these recommendations. A lot of positive work is already happening, and the implementation of the recommendations continued herein, including developing more formal mental health support for PFAS impacted individuals will greatly enhance these existing efforts.

Appendix A

Survey of Maine Licensed Mental Health Counselors

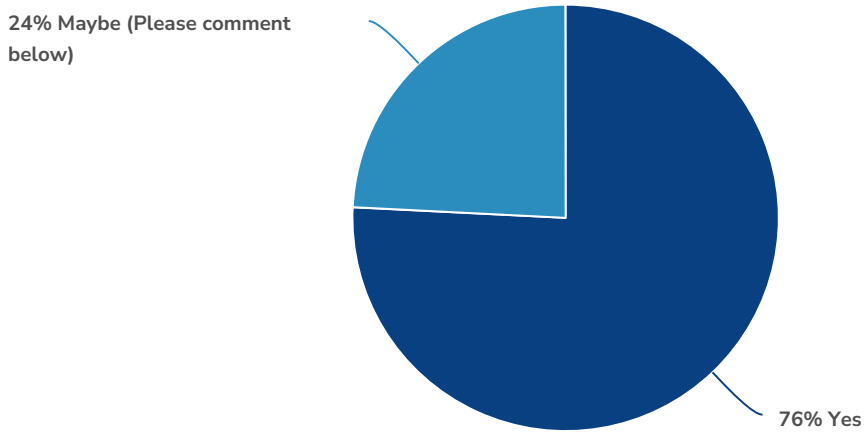
1. Are you interested in joining a core network of mental health clinicians dedicated to serving PFAS-impacted farmers and others?



Value	Percent	Responses
Yes	68.8%	86
No	4.0%	5
Maybe	27.2%	34

Totals: 125

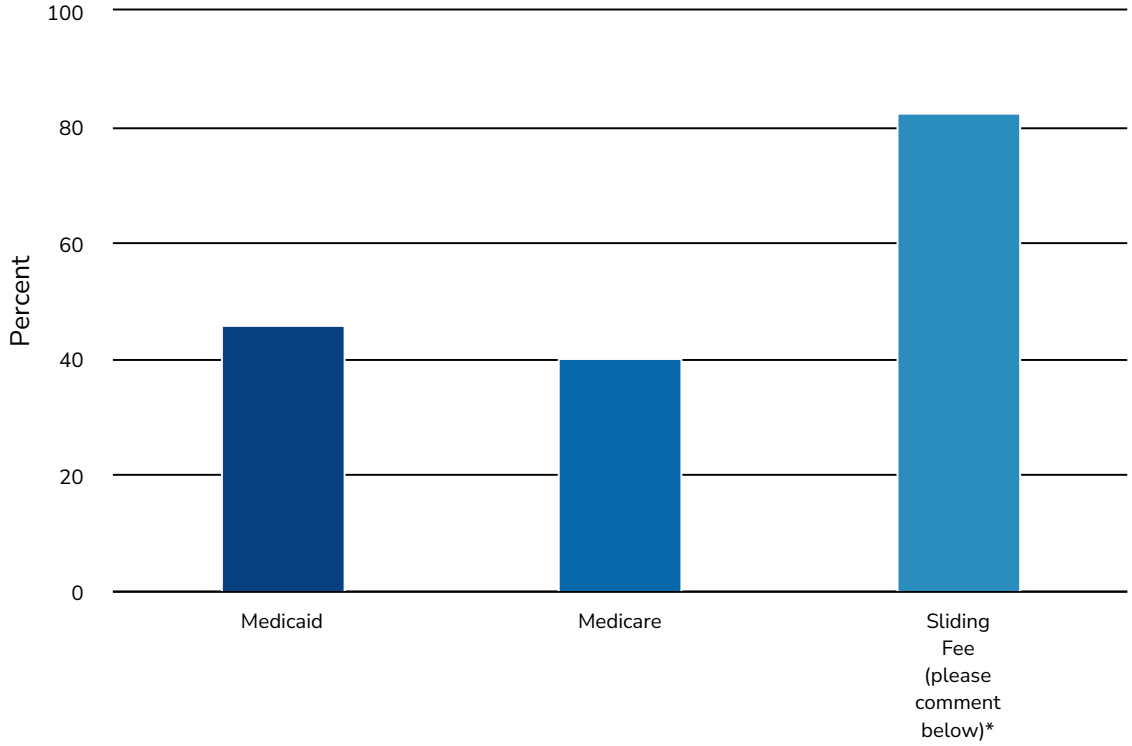
2. If part of the network, would you be willing to accommodate and schedule an occasional referral to your practice within a week or two of the time of referral?



Value	Percent	Responses
Yes	75.8%	91
Maybe (Please comment below)	24.2%	29

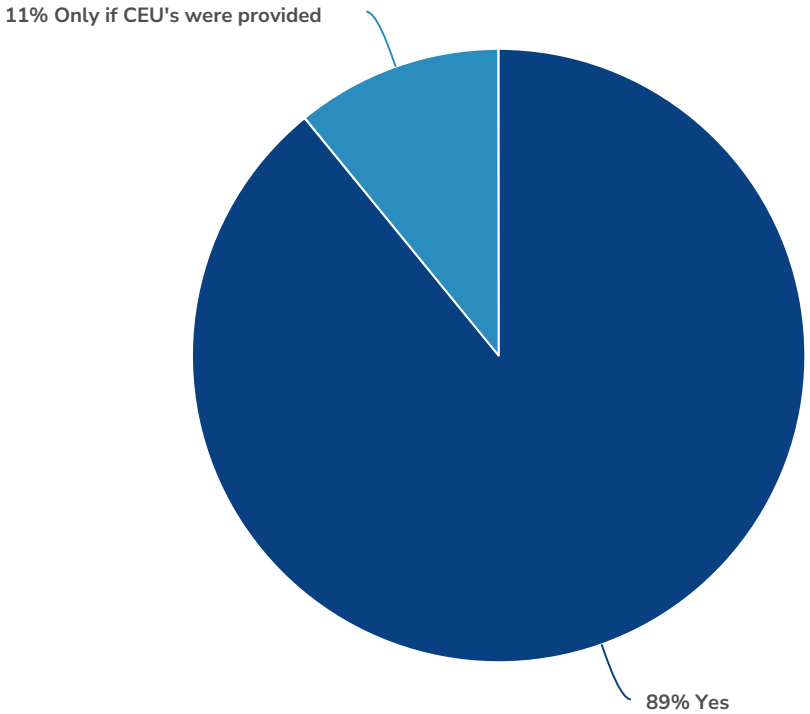
Totals: 120

3. If a farmer does not have commercial insurance are you able to accommodate such referrals with any of the following?



Value	Percent	Responses
Medicaid	45.9%	50
Medicare	40.4%	44
Sliding Fee (please comment below)*	82.6%	90

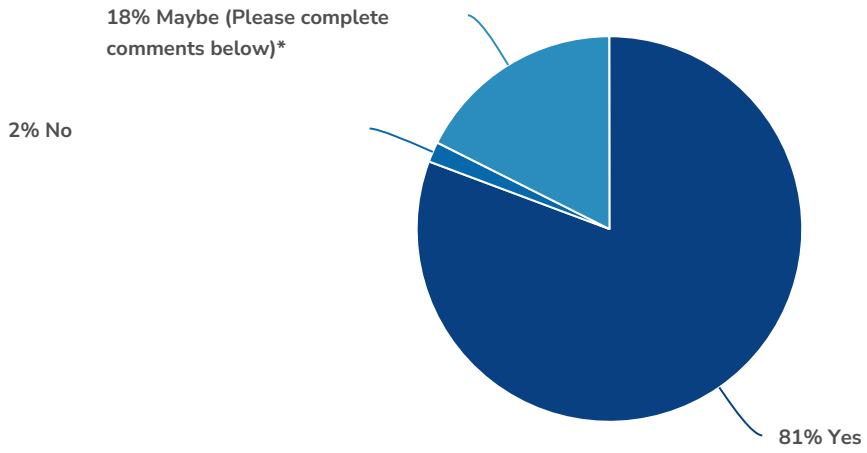
4. Anyone participating in this network, must agree to attend a 2- hour virtual training to better understand the unique stressors faced by farmers and others impacted by PFAS, and to learn about the fundamentals of PFAS contamination. Would you be willing to attend such a training if it was provided for free?



Value	Percent	Responses
Yes	89.1%	106
Only if CEU's were provided	10.9%	13

Totals: 119

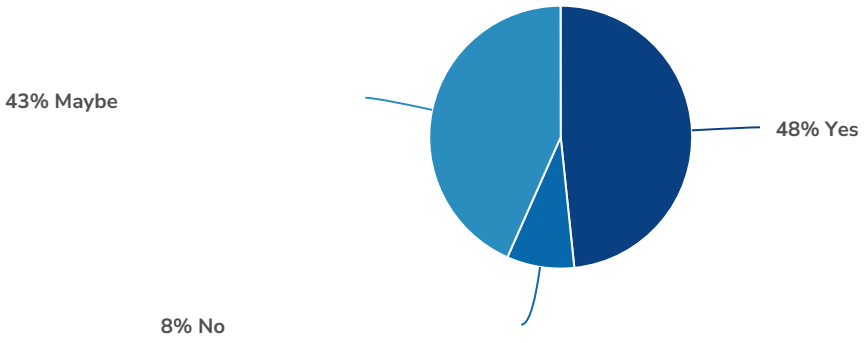
5. As a way to better meet patients where they are at and reduce stigma, would you be open to offering periodic check-ins, for example, a 15 minute phone call, with patients if these could be partially billable? We're currently working out the details.



Value	Percent	Responses
Yes	80.7%	96
No	1.7%	2
Maybe (Please complete comments below)*	17.6%	21

Totals: 119

6. Would you be interested in taking on a generalist social work role that includes learning about farm-related and PFAS resources, so you could offer both counseling AND resource support to farmers as needed?



Value	Percent	Responses
Yes	48.3%	58
No	8.3%	10
Maybe	43.3%	52

Totals: 120