PFAS Funding for Testing Drinking Water in Washington State

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We are exploring ideas to develop a fund to cover testing costs for Perfluoroalkyl substances (PFAS) in drinking water and, as needed, provide in-home water filters. This fund would allow us to mitigate immediate risks while a long term-solution is identified. Other states shared with us how they obtained funding, set up funding distribution, and evaluated program effectiveness for their state.

Funding Options

Environmental Protection Agency (EPA)

This EPA factsheet provides an overview of the use of the Drinking Water State Revolving Fund (DWSRF) to address PFAS, including case studies from communities.

Florida

The Florida Department of Environmental Protection provides a framework that could be helpful.

> Created by the Legislature in the mid-1980s after the discovery of Ethylene Di-Bromide (EDB), a carcinogenic agricultural pesticide, in private drinking water wells, the Water Supply Restoration Funding Program continues to be funded by the Water Quality Assurance Trust Fund and the Inland Protection Trust Fund for the restoration of safe drinking water to well owners impacted with potential health hazards due to man-made contamination.
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> To qualify, water sampling results must show that the man-made contaminant(s) in the drinking water supply exceeds a Maximum Contaminant Level (MCL), or Health Advisory Level (HAL) or be determined by the Florida Department of Health to be a health hazard. Section 376.30(3)(c)1., Florida Statutes, requires the program to select the most cost-effective alternative. Approved funding will pay the total cost for the selected alternative. Restoration and replacement work has been conducted in almost every county throughout the state.

North Dakota

The North Dakota Department of Environmental Quality is using EPA's 2020 Pubic Water System Supervision Block Grant funding for Emerging Contaminants to conduct testing at drinking water treatment plants of community water systems.

PFAS Resource (Cost) Issues

Some actions may fall under a state's normal agency programmatic activity; others require more staff and time. For example:

- In 2021, **Michigan** allocated $23.4 million and 131,296 staff hours to implement PFAS activities.
- **New Mexico** estimated that 2020 and 2021 drinking water sampling efforts to total $1.2 million, and the state legislature authorized $4 million for communities in two counties to plan, design, and construct improvements to water systems with PFAS contamination.
- **Maine** expended approximately $0.5 million through the end of 2020 on personnel and other (mainly laboratory) expenses, not including senior manager full time employees (FTEs). This exponentially changed after Public Law 2021, Chapter 478 was enacted, requiring several state investigation and data collection efforts. In addition to utilizing existing staff, the Maine legislature added eleven FTEs and six limited period positions, as well as $20 million to fund soil and groundwater sampling and install/maintain drinking water filtration systems for private drinking water wells impacted by PFAS.
    - They are also working on obtaining additional funding during this upcoming legislative cycle, including $5 million through the American Recovery Program to provide clean drinking water to residents with PFAS impacted wells, as well as to the Maine Department of Agriculture, Conservation and Forestry, for two FTEs and $10 million to coordinate with Department of Environmental Protection on investigation of PFAS in active agricultural operations.
    - As of December 11, 2021, Maine DEP expended over $2.3 million on PFAS, with over $1.1 million expended in fiscal year 2022.
    - In 2022 they are hoping to obtain and utilize additional incoming federal infrastructure dollars for drinking water/wastewater treatment and remediation and to obtain legal support for litigation through the Attorney General's Office.
    - $29 million to implement a five-year statewide monitoring plan to study surface water and fish tissue (not including staff time).
    - $75,000 to evaluate influent and effluent PFAS values at approximately thirty publicly-owned treatment works for one year; and
    - $90,000 to support the development of a geographic information system for risk assessment of groundwater, surface water, and drinking water.
- **New Jersey** utilizes five FTEs for PFAS standard-setting efforts.
- **California** has FTEs dedicated to enforcement of the regulation, but does not consider FTEs for rule development in its cost estimates.
- In 2020, **Connecticut** estimated it needed $5.44 million. Small public water systems usually contain contaminants other than PFAS, including arsenic, manganese, nitrate, or bacteria that present health risks and are naturally occurring or originate from nearby land uses. Effectiveness of PFAS treatment will depend on how often filters are replaced and what levels of these other contaminants are present in the system.

A couple of states noted that PFAS requires a somewhat swift and significant rebalancing of staff member projects. For example, a state may have difficulty hiring new employees to fill previous positions of those now assigned to work on PFAS. Or a state's other projects may fall by the wayside due to the demand of this issue. Incurred costs extend beyond regulating PFAS and should factor in expenditures for:

- Initial investigations whether and to what degree there are PFAS releases or contaminated media;
- Removal methods for contaminated media;
- Disposal or long-term storage of AFFF;
- Lab certification, process development, and equipment acquisition;
- Chemical analysis;
- Liabilities and legal fees;
- Risk communication; and,
- Tracking the fate and transport of PFAS once released from an active source to the environment, requiring (re)sampling and treatment.

Example Expenditures

- **Florida** has appropriated funding to assess and remediate PFAS at state-owned fire training facilities, as well as to assist homeowners with private wells that have PFAS-related contamination. Many states, with and without PFAS guidelines, have, are currently, or are planning to sample all public water systems, requiring a large amount of resources, not including the money required to remediate contamination when discovered.
- **Minnesota** is still calculating its costs (the total for past, ongoing, and potential future PFAS efforts will be estimated in its pending PFAS report), but noted that an industrial facility in the state allocated about $750,000 to retrofit its operations where PFAS were used and had contaminated a nearby waterbody.
- **New Jersey** estimates that the average cost for lab analysis is $300 per PFAS sample at each point of entry, and that this cost is expected to decrease as additional laboratories are certified for PFAS analysis and as market competition increases. The state also estimates that the cost of installing PFAS-specific GAC treatment for a PWS treating one million gallons per day (serving about 10,000 people) ranges from $500,000 to $1,000,000, with estimated operating costs of approximately $80,000 per year. New Jersey notes that operating costs could increase depending on the number of wells requiring treatment and the level of contamination. Given PFAS ubiquity, the ability for precursors (e.g., fluorotelomers) to transform to perfluoroalkyl acids and complicate site models, and complex transport mechanisms, especially at the air-water interface, states will need to use more resources to test process-based conceptual site models and fully understand the size and source of PFAS plumes.

Regulatory Cost Implications

Resource Availability

Often driven by dedicated government appropriations. For most states, resources to investigate and address PFAS come from existing program budgets (i.e., no new funds).

- **Colorado** and **Michigan** received funding from bills signed by their governors.
- **Connecticut** received $2 million in bond funding to support the development and implementation of an AFFF take-back program, limited private well sampling, and treatment where needed.
- **Wisconsin** allocated $1 million in their 2021-2023 biennial budget for a firefighting foam collection and disposal program.

But these exemplify state-specific resources based on legislative priorities. Other states have received funding from settlements with PFAS manufacturers to use on regulation and/or restoration of contaminated sites. (**New Hampshire** and **Minnesota** are both using lawsuit settlements from local industrial sites to fund mitigation of PFAS in private wells impacted by those businesses. There may be more examples.)

More information

To learn more about PFAS, visit the Washington State Department of Health website at doh.wa.gov and search for "PFAS."