



PFAS Toolkit for Municipalities

June 15, 2022

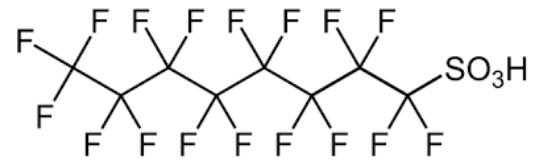
What are PFAS?

PFAS = Per- and Polyfluoroalkyl Substances

- A group of more than 9,000 manmade chemicals
- Developed in the 1940s, in common use since the 1950s
- Ubiquitous in consumer products and industry
- PFOA and PFOS are the two most well-studied PFAS
- PFAS characteristics:
 - Repel water, oil, and grease and resist heat
 - Stable
 - Extremely persistent and resist degradation
 - Bioaccumulative
 - Toxic
 - Migrate easily in the environment



Perfluorooctanoic acid, or PFOA



Perfluorooctane sulfonic acid, or PFOS

What are Sources of PFAS?

PFAS are used in many industry and manufacturing sectors and can be found in a variety of items, including consumer products. Some examples include:

Consumer Products (examples)	
Nonstick cookware	Industrial and household cleaning products
Waterproof, water-resistant, and stain-resistant textiles (e.g., clothing, shoes, upholstery, and carpets)	Grease-resistant and waterproof coatings on food packaging (e.g., popcorn bags, takeout containers, and fast-food wrappers); Coated paper products
Floor, car, and boat waxes; ski wax	Cosmetics and personal care products
Manufacturing/Industrial Uses and Processes (examples)	
Metal plating and finishing	Engineered coatings used in semiconductor production
Etching of metals, plastics, and glass	Surface coating, paint, varnish, and inks
Plastics, resins, and rubber products	Cable and wire insulation for electronics
Aqueous Film-Forming Foam (AFFF) used to extinguish flammable liquid fires	
PFAS Waste Management and Disposal Locations that are Sources	
Landfills	Wastewater Treatment Plants
Biosolids and biosolid-based agricultural amendments	

CT Drinking Water Action Levels for PFAS

On June 15, 2022, the Department of Public Health updated its Drinking Water Action Level for PFAS to the following advisory levels for four individual PFAS compounds based upon review of newer toxicological information. Drinking water action levels may be established for additional PFAS compounds or these actions levels may be adjusted in the future as new information becomes available.

Chemical Name and Abbreviation	Action Level <i>parts per trillion (ppt) = nanograms per liter (ng/L)</i>
Perfluorooctane sulfonic acid (PFOS)	10 ppt or ng/L
Perfluorononanoic acid (PFNA)	12 ppt or ng/L
Perfluorooctanoic acid (PFOA)	16 ppt or ng/L
Perfluorohexane sulfonic acid (PFHxS)	49 ppt or ng/L
<i>These Action Levels are based on the most sensitive, human-relevant effects seen in laboratory animals exposed to PFOS (immune effects); PFNA, PFOA (developmental effects); or PFHxS (thyroid effects).</i>	

Actions Municipalities Can Take Related to PFAS

Requirement:

- **Stop using Class B firefighting foam containing PFAS, also commonly known as AFFF.** It's against the law (PA 21-191/CGS 22a-903a), and PFAS-free firefighting foam is available for purchase. Guidance for [Draining and Rinsing AFFF from Municipal Onboard Systems](#) is available.

If AFFF is used by fire services, the deployment must be reported to DEEP Emergency Dispatch at **860-424-3338**. In addition, deployment of new fluorine-free foam from apparatus that previously held AFFF must also be reported to DEEP, due to PFAS cross-contamination issues.

Recommended Actions:

- **Test drinking water wells** near fire departments, current and former fire training areas, and landfills for PFAS.
- **Seek out alternatives to products containing PFAS** for use in municipal buildings and schools (e.g., cleaning products, floor cleaners and waxes, food service ware). See <https://www.greenscreenchemicals.org/certified> for information about PFAS-free products.

Testing for PFAS

Sampling for PFAS requires specially trained professionals and procedures. Because PFAS are ubiquitous, care must be taken to avoid cross-contamination of samples.

- Municipalities may wish to hire an environmental consulting firm to assist with sample collection, analyses, and data interpretation.
- State contracts for environmental consulting firms, test laboratories, bottled water delivery, and water treatment are available for municipalities to use. See the section on “Contracting and Other Resources for Municipalities,” below.

If you test drinking water wells for PFAS:

- Use a laboratory from the list of [CT DPH Certified Laboratories](#) that test for PFAS in Potable Water Samples. Some of the laboratories are also available at Department of Administrative Services (DAS) contract rates. See DAS Contract #19PSX0095 for available laboratories.
- Laboratories will provide instructions for collecting potable water samples.
- Request analysis using EPA Method 537 rev. 1.1 or 537.1 and analyze for all PFAS on the method list. Expect at least 2-3 weeks to receive the results. The lab cost to analyze a drinking water sample is typically \$200 – \$300.
- **If PFAS are found above DPH’s Drinking Water Action Levels,**
 - Notify DPH.EmergingContaminants@ct.gov and the [DEEP Remediation Division District Supervisor](#) of the results.
 - Use an alternative drinking water source such as bottled water until treatment can be installed.
 - Consult with a water treatment professional for options to remove PFAS.
 - State contracts are available to use for bottled water and water treatment.

If you test soil or groundwater for PFAS:

- Please first contact the [DEEP Remediation Division District Supervisor](#) of your Town for guidance.

Contracting and Other Resources for Municipalities

State contracts are available for municipal use through the Department of Administrative Services (DAS). Enter the contract number in the green search box at this link: [CTsource Contract Board](#). Scroll down for information on available vendors and contract documents.

Service	Contract Number	Contract Name
Environmental Consultants	18PSX0153	Environmental Investigation, Remediation and Project Management Services
Environmental Laboratories	19PSX0095	Environmental Analytical Services

Service	Contract Number	Contract Name
Potable Water Treatment	18PSX0016	Potable Water Treatment
Bottled Water	18PSX0325AA	Cooler Rental, Delivery of Bottled Water and Related Supplies
PFAS Waste Disposal	16PSX0197	Removal and Disposal of Hazardous Waste Streams

Helpful Websites:

- DEEP General PFAS information: [Per- and Polyfluoroalkyl Substances \(ct.gov\)](https://www.deep.state.ct.us/Per-and-Polyfluoroalkyl-Substances)
- DPH PFAS Frequently Asked Questions [PFAS \(ct.gov\)](https://www.dph.state.ct.us/PFAS)
- [CT Interagency PFAS Task Force](https://www.ct.gov/interagency-pfas-task-force)
- Federal Environmental Protection Agency (EPA) [Per- and Polyfluoroalkyl Substances \(PFAS\) | US EPA](https://www.epa.gov/per-and-polyfluoroalkyl-substances)

If you have questions about PFAS...

Please contact the DPH and DEEP – we’re here to help.

Topic	Contact
Testing or treatment of public, community, and non-community water supplies	DPH Emerging Contaminants Unit: DPH.EmergingContaminants@ct.gov or (860) 509-7333
PFAS testing and treatment for private wells	General questions: DPH Private Well Program DPH.PrivateWellProgram@ct.gov or (860) 509-8401 To report results exceeding an Action Level: DPH.EmergingContaminants@ct.gov and DEEP Remediation Division District Supervisor
Health effects and exposure to PFAS	DPH Environmental & Occupational Health Assessment Program: DPH.occhealth@ct.gov or (860) 509-7740
PFAS sources, testing of soil and groundwater, and cleanup of PFAS pollution	DEEP Remediation Division: (860) 424-3705 See Remediation Division Contacts for regional districts and contact information.
To report all releases of PFAS or AFFF to DEEP (required by law)	DEEP Emergency Dispatch: (860) 424-3338