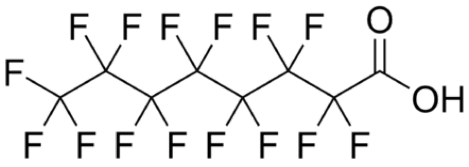
PFAS Information for Municipalities

Revised March 20, 2023

What are PFAS?

PFAS = **P**er- and **P**oly**f**luoro**a**lkyl **S**ubstances

- A group of more than 12,000 manmade chemicals that contain carbon and fluorine
- 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
  - Extremely persistent and resistant to breakdown
  - Bioaccumulative and toxic at very low levels
  - 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, pizza boxes, 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 Class B petroleum & flammable liquid fires	
Waste Management and Disposal Locations	
Landfills	Wastewater Treatment Plants and Septic Systems
Biosolids and biosolids-based agricultural amendments	

CT Drinking Water Action Levels for PFAS

On June 15, 2022, the Department of Public Health (DPH) updated its Drinking Water Action Level for PFAS to the following advisory levels for four individual PFAS compounds based upon review of recent toxicological information. As new information becomes available, drinking water action levels may be adjusted and/or established for additional PFAS compounds.

Chemical Name and Abbreviation	**Action Level** *parts per trillion (ppt) = nanograms per liter (ng/L)*
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
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).	

Actions Municipalities Can Take Related to PFAS

Requirement:

- ***Stop using Class B firefighting foam containing PFAS.*** It's against the law (CGS Section 22a-903a). The most commonly used PFAS foam is known as Aqueous Film Forming Foam (AFFF). Acronyms for other PFAS-containing foams include AR-AFFF, FFFP, AR-FFFP, FP, and FPAR. PFAS-free firefighting foam (fluorine-free foam, or F3) is available. Municipalities can use Department of Administrative Services (DAS) Contract No. 21PSX0028AB to purchase National Foam's Universal F3 Green firefighting foam. Other PFAS-free foams have been certified by GreenScreen® for Safer Chemicals and are acceptable for use in Connecticut. Please review guidance for Draining and Rinsing AFFF from Municipal Onboard Systems.

Never discharge AFFF and other PFAS-containing firefighting foams to the ground, storm drain, surface water, sanitary sewer or septic system.

Any remaining containers of AFFF, as well as fire extinguishers and "Pro/paks" that contain PFAS foam, should be secured to ensure they will not be used. If your Town has containers of AFFF requiring pick-up and disposal, please contact State Fire Administrator Jeff Morrissette, jeff.morrissette@ct.gov, to be placed on the waiting list. Alternatively,

municipalities may dispose of these materials using a licensed hazardous waste disposal contractor (see Contracting and Other Resources for Municipalities below).

If AFFF is used or released by fire services to respond to a life-saving incident or otherwise inadvertently discharged, 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 want to hire an environmental consulting firm to assist with sample collection, analyses, and data interpretation. To avoid cross-contamination, very specific sampling procedures must be used.
- State contracts for environmental consulting firms, test laboratories, bottled water delivery, and water treatment services are available for municipalities to use.

If you test drinking water wells for PFAS:

- At this time, the Katherine A. Kelley State Public Health Laboratory is not available to analyze PFAS drinking water samples submitted by local health departments. Instead, a commercial laboratory must be used for PFAS sample analysis.
- 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 No. 19PSX0095 for available laboratories.
- Laboratories will provide instructions for collecting potable water samples.
- Request analysis using EPA Method 537.1 or EPA Method 533 and analyze for all PFAS on the method list. Expect at least 2-4 weeks to receive the results. The lab cost to analyze a drinking water sample is typically $250 – $450.

If PFAS are found in drinking water wells above DPH's Drinking Water Action Levels:

- Notify DPH.EmergingContaminants@ct.gov and the DEEP Remediation Division District Supervisor for your Town 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 for Municipalities 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 for your town for guidance.

Contracting and Other Resources for Municipalities

Municipalities may utilize existing state contracts to procure environmental consulting services, environmental testing laboratories and other related services identified below. Contract information can be accessed through DAS's CTsource Contract Board. Enter the contract number in the green search box and 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
Potable Water Treatment	22PSX0029	Public and Private Water Quality Management and Oversight
Bottled Water	18PSX0325AA	Cooler Rental, Delivery of Bottled Water and Related Supplies
PFAS Waste Disposal	22PSX0030	Removal, Transportation and Disposal of Hazardous Waste Streams
Purchase of New Fluorine-Free Firefighting Foam	21PSX0028AB	National Foam Universal F3 Green Firefighting Foam

Helpful Websites:

- DEEP Per- and Polyfluoroalkyl Substances - General PFAS information
- DPH Per- and polyfluoroalkyl Substances (PFAS) – Drinking water and health FAQs
- CT Interagency PFAS Task Force
- Per- and Polyfluoroalkyl Substances (PFAS) | US EPA

If you have questions about PFAS…

Please contact DEEP, DPH and DESPP – 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.EOHA@ct.gov or (860) 509-7740
PFAS sources, testing of soil and groundwater, and cleanup of PFAS pollution	DEEP Remediation Division District Supervisor for the Town or (860) 424-3705
To report all releases of PFAS or AFFF to DEEP (required by law)	DEEP Emergency Dispatch: (860) 424-3338
AFFF transitioning and fire apparatus cleaning	Dept. of Emergency Services and Public Protection - Commission on Fire Prevention & Control: Jeff Morrissette, State Fire Administrator, 860-566-0690 or jeff.morrissette@ct.gov DEEP Emergency Response Unit: Rick Swan, richard.swan@ct.gov