

# Dracut Water Supply District

## Basic Information on PFAS

**Dracut Water Supply District (DWSD)** voluntarily collected a set of samples from our three water sources on 7/9/2019 and 8/20/2019 respectively. The PFAS results from each source are less than 10 ppt. The Mass DEP ORSG for PFAS is 70 ppt. **The water is safe to consume.**

### What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

### How are we exposed to PFAS?

- **Food**, packaged in PFAS-containing materials, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water.
- **Commercial household products**, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams (a major source of groundwater contamination at airports and military bases where firefighting training occurs).
- **Workplace**, including production facilities or industries (e.g., chrome plating, electronics manufacturing or oil recovery) that use PFAS.
- **Drinking water** typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- **Living organisms**, including fish, animals and humans, where PFAS have the ability to build up and persist over time.

Certain PFAS chemicals are no longer manufactured in the United States as a result of phase outs including the [PFOA Stewardship Program](#) in which eight major chemical manufacturers agreed to eliminate the use of PFOA and PFOA-related chemicals in their products and as emissions from their facilities. Although PFOA and PFOS are no longer manufactured in the United States, they are still produced internationally and can be imported into the United States in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber and plastics.

### Are there health effects from PFAS?

There is evidence that exposure to PFAS can lead to adverse health outcomes in humans. If humans, or animals, ingest PFAS (by eating or drinking food or water that contain PFAS), the PFAS are absorbed, and can accumulate in the body. PFAS stay in the human body for long periods of time. As a result, as people get exposed to PFAS from different sources over time, the level of PFAS in their bodies may increase to the point where they suffer from adverse health effects.

Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. Both chemicals have caused tumors in animal studies. The most consistent findings from human epidemiology studies are increased cholesterol levels among exposed populations, with more limited findings related to:

- infant birth weights,
- effects on the immune system,
- cancer (for PFOA), and
- thyroid hormone disruption (for PFOS).

## Are PFAS regulated?

No. In 2016, EPA issued health advisories suggesting that any combined exposure to PFOA and PFOS over 70 parts per trillion (ppt) over the course of a lifetime is unsafe. However, health advisories are non-forceable and there are no national regulations for PFOA and PFOS in Drinking water.

Nearly All states have primacy over the EPA, meaning that they can set more protective guideline if they have the ability to measure and remove the contaminant. Currently, Massachusetts Department of Environmental Protection (MassDEP) is initiating the process to develop a drinking water standard for public drinking water systems, known as a Maximum Contaminant Level (MCL), for a group of Per- and Polyfluoroalkyl Substances (PFAS).

## Dracut Water Supply District (DWSD) PFAS test Results

DWSD has the following sources of water:

- New Boston Wells
- Tyngsborough Wells
- Pleasant Street Pump Station Lowell finished water

DWSD voluntarily collected a set of samples from our three water sources on 7/9/2019 and 8/20/2019 respectively. These samples were sent to Alpha Analytical Lab and tested for PFAS. Our goal is to provide information to our customers, local officials, and MassDEP on whether PFAS is present in our drinking water at levels of concern.

Sample Location: New Boston Wells - Finished					
Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorohexanoic Acid (PFHpA)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	8/20/2019	6	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	8/20/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		6	ppt		70
PFAS, Total (5)		6	ppt		70

**Sample Location: Tynsborough Wells - Finished**

Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorohepatanoic Acid (PFHpA)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	8/20/2019	6	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	8/20/2019	3	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	8/20/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		9	ppt		70
PFAS, Total (5)		9	ppt		70

**Sample Location: Pleasant St Pump Station (Lowell) - Finished**

Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorohepatanoic Acid (PFHpA)	8/20/2019	2	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	8/20/2019	5	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	8/20/2019	ND	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	8/20/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		5	ppt		70
PFAS, Total (5)		7	ppt		70

**Sample Location: New Boston Wells - Finished**

Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorohepatanoic Acid (PFHpA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	7/9/2019	5	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	7/9/2019	2	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	7/9/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		8	ppt		70
PFAS, Total (5)		8	ppt		70

**Sample Location: Tynsborough Wells - Finished**

Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorohepatanoic Acid (PFHpA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	7/9/2019	5	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	7/9/2019	2	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	7/9/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		7	ppt		70
PFAS, Total (5)		7	ppt		70

**Sample Location: Pleasant St Pump Station (Lowell) - Finished**

Contaminant	Date Collected	Results	Test Units	Method	Mass DEP Limit
Perfluorhepatanoic Acid (PFHpA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorohexane Sulfonic Acid (PFHxS)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctanoic Acid (PFOA)	7/9/2019	4	ppt	EPA 537.1	70
Perfluorononanoic Acid (PFNA)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorooctane Sulfonic Acid (PFOS)	7/9/2019	ND	ppt	EPA 537.1	70
Perfluorodecanoic Acid (PFDA)	7/9/2019	ND	ppt	EPA 537.1	-
PFOA/PFOS, Total		4	ppt		70
PFAS, Total (5)		4	ppt		70