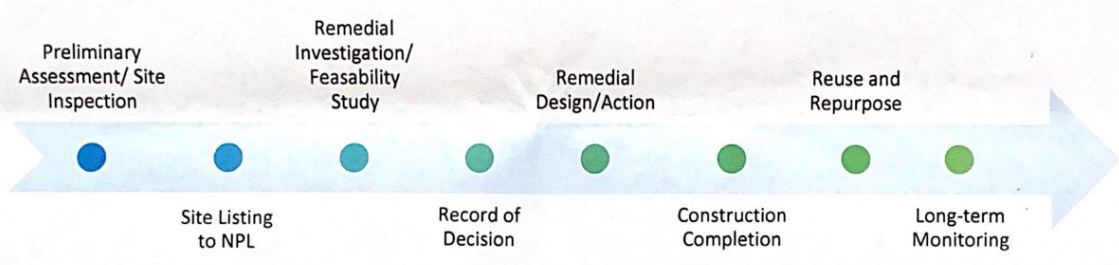


NPL Site Process:



Who You Can Contact:

Our teams are available to support your community! Below are contacts from the New Hampshire Department of Environmental Services and the United States Environmental Protection Agency who are available as resources to you. There is no wrong number, if you're not sure who to reach out to, start with Robert Thistle.

Topic Area	Contact Name	Phone	Email
New Hampshire Department of Environmental Services			
Site management, Coakley	Drew Hoffman	603-271-4060	Andrew.j.hoffman@des.nh.gov
APPLETREE Program	Robert Thistle, Ph.D.	603-271-4608	Robert.thistle@des.nh.gov
Health and Exposure Concerns	Jonathan Petali, Ph.D.	603-271-1359	Jonathan.m.petali@des.nh.gov
Drinking Water	Brandon Kernen	603-271-1168	Brandon.m.kernen@des.nh.gov
PFAS- General Info and Funding	Amy Rousseau	603-271-8801	Amy.e.rousseau@des.nh.gov
United States Environmental Protection Agency			
Community Involvement	Kelsey Dumville	617-918-1103	Dumville.kelsey@epa.gov
Site management, Coakley	Skip Hull	617 918-1882	Hull.Richard@epa.gov

Agency for Toxic Substances and Disease Registry's Partnership to Promote Local Efforts To Reduce Environmental Exposures



Agency for Toxic Substances and
Disease Registry's Partnership to
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Environmental Exposures

APPLETREE



The New Hampshire (NH) APPLETREE Program, run jointly between the New Hampshire Department of Environmental Services (NHDES) and the New Hampshire Division of Public Health Services at the state Department of Health and Human Services (NH DPHS), and the Dartmouth Cancer Center's Community Outreach and Engagement team, have developed training resources to support local leaders who are responding to community environmental health concerns.

Training 1 – An Introduction to the NH Environmental Health Guide (11 minutes) In this first training, we introduce the audience to partners available to assist them and review examples of how to use the New Hampshire Environmental Health Guide. Use the QR code to access the recorded training.



Training 2 – Cancer Concerns in the Community (31 minutes) This training was developed with funding from the NH Cancer Program at the NH DPHS. The training provides an overview of cancer and how the State of New Hampshire responds to cancer concerns. This training was designed to provide resources to help legislators, city and town health officers, municipal officials, administrators, and other stakeholders to understand how cancer concerns are investigated and find the appropriate State resource or agency to respond and address cancer concerns raised by New Hampshire communities.



Training 3 – Understanding Environmental Contamination and Risk (30 minutes) In this third training, we introduce the audience to examples of common environmental contaminants in New Hampshire, how exposure to these contaminants may lead to adverse health outcomes, and finally methods for communicating about and reducing overall risk for communities.



KAREN CRAVER, MPH

(she/her)

Administrator,
Environmental Justice Coordinator

Environmental Health Program



NEW HAMPSHIRE
DEPARTMENT OF
**Environmental
Services**

karen.m.craver@des.nh.gov

📞 (603) 271-6865

🐦 @NHDES

📘 NHEnvironmentalServices

📷 NHEnvironmentalServices

📺 YouTube.com/NHDES

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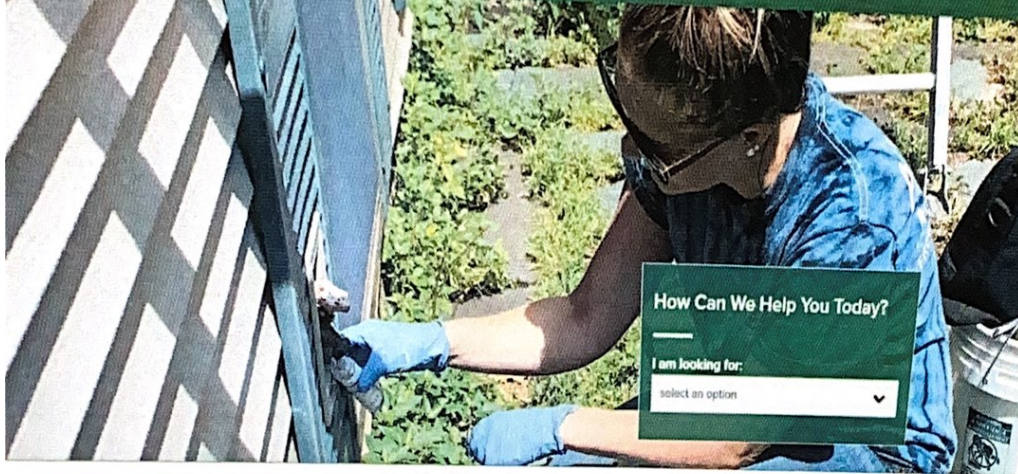


New Hampshire
DEPARTMENT OF
**Environmental
Services**

NHDES | Events | OneStop | Contact



Home Health Impacts PFAS Occurrences Response Areas Firefighting Foam Funding Opportunities Information Center



Amy Rousseau
PFAS Response Administrator
(603) 271-8801
amy.e.rousseau@des.nh.gov

ENVIRONMENTAL Fact Sheet



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

DWGB-3-25

2020

Per- and Polyfluoroalkyl Substances (PFAS) in New Hampshire Well Water

INTRODUCTION AND OCCURRENCE

Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic or man-made chemicals that are increasingly being found in our environment. PFAS do not break down easily and can move through soil, get into groundwater, and be carried through air. Because they are stable chemicals and move so easily in the environment, PFAS have been found far away from where they were made or used.

PFAS have been used for decades to manufacture household and commercial products that resist heat, oil, stains, grease and water. These chemicals have been used in many consumer products, including non-stick cookware, stain-resistant furniture and carpets, waterproof clothing, microwave popcorn bags, fast food wrappers, pizza boxes, and personal care products. They have also been used in certain firefighting foams and various industrial processes.

Certain PFAS chemicals are no longer manufactured in the United States as a result of phase-out programs, including the [EPA PFOA Stewardship Program](#) in which eight major chemical manufacturers agreed to eliminate the use of perfluorooctanoic acid (PFOA) and PFOA-related chemicals in their products and as emissions to all media from their facilities. Although PFOA and perfluorooctane sulfonic acid (PFOS) are no longer manufactured in the United States, they are still produced and used 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.

HEALTH EFFECTS

Studies have shown that chronic or repeated ingestion of water with certain PFAS over a person's lifetime may be associated with increased cholesterol and liver enzyme levels, as well as disorders of the cardiovascular, immunological, developmental and reproductive systems. Some scientific evidence suggests that certain PFAS, such as PFOA, may increase the risk of kidney and testicular cancer. According to the CDC's [Agency for Toxic Substances and Disease Registry](#) (ATSDR), skin contact with PFAS in well water is not a major concern for exposure in most residential situations. This means washing and bathing are not expected to pose a known risk to human health. Additional information on health effects is available in the [2019 NHDES Technical Report](#), as well as from the [Agency for Toxic Substances and Disease Registry](#).

HEALTH STANDARDS

State law enacted in 2018 directed the New Hampshire Department of Environmental Services (NHDES), in consultation with the New Hampshire Department of Health and Human Services (DHHS), to set drinking water standards/maximum contaminant levels (MCLs) that are protective of human health for PFOA, PFOS, perfluorohexane sulfonic acid (PFHxS) and perfluorononanoic acid (PFNA). These four compounds were selected

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DWGB-3-24

2020

1,4-Dioxane and Drinking Water

1,4-dioxane has historically been used as a stabilizer for chlorinated solvents, especially trichloroethane. This compound is also present in some consumer products such as shampoos, toothpastes, deodorants and other personal care products. 1,4-dioxane is generally not listed as an ingredient in personal care products that it can be detected in. It is a contaminant in these products that forms as part of secondary reaction when ethylene oxide is added during the manufacturing process. Ethylene oxide is added to make the cleaning agents in personal care products less harsh or abrasive.

Drinking Water Health Standards

RSA 485-C:6 requires the New Hampshire Department of Environmental Services (NHDES) to establish an ambient groundwater quality standard (AGQS) based on a one-in-one-million cancer risk when the federal government indicates such a risk exists for a particular contaminant.

In 2005, NHDES initially adopted an AGQS for 1,4-dioxane of 3.0 µg/L based on information provided at that time by the US Environmental Protection Agency's (EPA) Integrated Risk Information System (IRIS) toxicological review. By regulation, ambient groundwater quality standards are also considered drinking water standards if a Maximum Contaminant Level standard has not been developed for a particular compound. The IRIS Program published a revised toxicological review in 2010 for 1,4-dioxane, which lowered the concentration of 1,4-dioxane in drinking water that would cause a one-in-one-million cancer risk from 3.0 µg/L to 0.32 µg/L. In 2010, NHDES began working on studies with laboratories to determine which existing analytical methods could achieve detection limits less than 0.32 µg/L. NHDES also assessed if water treatment systems could adequately remove 1,4-dioxane to concentrations below 0.32 µg/L. Additionally, NHDES assessed strategies for managing domestic wastewater that is discharged to groundwater. Typical domestic wastewater can contain 1-2 µg/L of 1,4-dioxane. On September 1, 2018, NHDES revised the AGQS for 1,4-dioxane to 0.32 µg/L.

Assessing the Occurrence of 1,4-Dioxane in Drinking Water

In March 2011, NHDES sent water systems information regarding the potential health effects regarding 1,4-dioxane. NHDES requested that community water systems and non-transient public water systems voluntarily sample their water sources for 1,4-dioxane and to share this data with NHDES. Additionally, NHDES targeted sources of water for public water systems that historically had detected chlorinated solvents. Approximately 200 sources of water were sampled and approximately 5% of the sources of water detected 1,4-dioxane. The majority of the sources that detected 1,4-dioxane historically had low concentrations of chlorinated solvents detected in the water.

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The potential health effects regarding 1,4-dioxane in drinking water systems voluntarily regulated by NHDES are targeted at 1,4-dioxane. Approximately 200 µg/L of 1,4-dioxane in drinking water is considered to be a health concern. The AGQS for 1,4-dioxane is 0.32 µg/L.