Shaw Institute
OVER 30 YEARS OF ENVIRONMENTAL IMPACT RESEARCH

FAQ

Blue Hill PFAS Testing Program

What are PFAS chemicals?

Per- and polyfluoroalkyl substances (PFAS) are man-made chemicals used to repel oil and water in a wide variety of commercial and industrial products. PFAS can enter the environment through industrial emissions, household wastewater, dust in the air, leaching from landfills, agricultural application of biosolids, and runoff from firefighting activities. Once in the environment, these chemicals persist for many years because they are very stable; hence, their nickname "forever chemicals."

Why are we concerned?

PFAS have been linked to several negative health effects in humans and animals, including suppressed immune systems, elevated cholesterol levels, thyroid disruption, liver damage, and higher risk of kidney or testicular cancer. However, the understanding of PFAS health effects is incomplete so scientists are still actively working on this issue

How am I being exposed?

Most people are exposed to PFAS through diet or from contact with the products in their home, including non-stick cookware, carpeting or clothing with stain-resistant coatings, take-out food wrappers, and some cosmetics or personal care products. It is often difficult to know whether a product contains PFAS because manufacturers are usually not required to include that information on labels.

Exposure to PFAS is also through drinking water. In Maine, 52% of households rely on well water which comes directly from groundwater, streams, and lakes.

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55 Main Street, P.O. Box 1652, Blue Hill, Maine 04614
ShawInstitute.org · info@shawinstitute.org · (207) 374-2135

What is the study about?

Shaw Institute is partnering with the Town of Blue Hill to survey the presence of PFAS in Blue Hill's water sources. This includes both surface water in streams as well as residential well water. The purpose of the study is twofold:

- To understand the extent and distribution of PFAS contamination in the town's water. This will provide data for the Comprehensive Plan and will help identify potential hot spots or sources that could be targeted for mitigation.
- To provide Blue Hill residents with easy access to PFAS testing for their private wells and to ensure they have the information they need to manage exposure from drinking water.

What do we already know about PFAS in Blue Hill?

Beginning In 2021, Maine required all public water supplies to test for PFAS, including schools, childcare facilities, and group-living communities. Blue Hill learned of elevated PFAS concentrations in the wells at the Consolidated School and Parker Ridge Retirement Community. While PFAS has been found in the groundwater in at least a few Blue Hill locations, it's not known how widely the contamination may be distributed or how many community residents may be at risk of exposure through their private wells.

What is the Shaw Institute?

Shaw Institute is a 501(c)(3) non-profit scientific research organization based in Blue Hill, Maine. Established nearly 35 years ago, the Institute's mission is to work to discover and expose environmental threats to the health and wellbeing of people and wildlife.

The Shaw Institute's research on PFAS began in 2009 with the publication of one of the earliest studies of PFAS contamination in marine mammals from the Gulf of Maine. In 2023, Dr. Charlie Rolsky, Executive Director and Senior Research Scientist at Shaw Institute, was invited to join Maine's PFAS Fund Advisory Committee. In this committee, he works with other scientists and state administrators to determine how the $60 million in state funds set aside for PFAS research and mitigation will be distributed. Shaw Institute has also recently worked with the town of Surry as they investigated PFAS sources and distribution around Surry Elementary School.

How is the study funded?

The PFAS study is funded by a Shaw Institute grant from the Maine Outdoor Heritage Fund. The Institute and the Town of Blue Hill will also provide resources to conduct the study. The grant allows for the purchase of a limited number of test kits for participants based on study needs and design. However, anyone may purchase a test at full price ($100) or donate to the project to allow more people to receive free test kits.

How will the study be conducted?

Cyclopure PFAS Water Test Kits are utilized to assess PFAS contamination in surface and well water. A scientific sampling methodology will ensure all parts of the community are represented. For well water, participants will collect samples using the PFAS kit according to instructions. To test surface water, 10 stream sites throughout the town will be selected for sampling by the Institute. Each stream site will be sampled twice during the summer – once after a significant rainfall and once after a dry period, weather permitting.

How many PFAS chemicals are analyzed in a test kit?

There are thousands of different PFAS chemicals used in industry, but only a few have been well studied and are regularly detected in the environment. Depending on the methods used, most labs can analyze between 12 and 40 PFAS compounds. Cyclopure analyzes for 55 PFAS compounds.

What is the difference between Cyclopure and the testing labs used by the state?

The State of Maine has compiled a list of labs that are accredited or approved to do PFAS testing in Maine. Costs at these labs can range from $250 - $400 per test. The Cyclopure lab, which is based in Illinois, uses the same analytical methods as the accredited labs, but their process is based on a patented DEXSORB® filter technology. As a part of this research project, 10 samples will be analyzed by both the Cyclopure lab and one of the state-accredited labs to directly compare results.

What is the timeframe for the study?

Study sign-up will begin on Monday, June 10 on the Shaw Institute website. The names/locations of interested participants will be collected and test kits offered through September 30, or when funding for the purchase of test kits is exhausted. Overall study results will be analyzed during the Fall and a final report will be publicly available by the end of the year.

Who can participate?

Participation in the PFAS study is voluntary. Seasonal or year-round residents of Blue Hill may participate. If your home is not selected as part of the sampling methodology, or if you are not a resident of Blue Hill, you may purchase a test kit for $100 from the Institute. Your data will be included in the study dataset and you will receive a private report of your results. Your results are valuable for understanding contamination patterns over the broader region. You may also place your name on a waiting list should additional funds become available for the purchase of more free tests.

How do I sign up?

The preferred method for signing up is to fill out the online form on the Shaw Institute website, **HERE**. If you are unable to fill out the online form, you are welcome to contact the Blue Hill Town Office at (207) 374-2281or email the Shaw Institute at pfas@shawinstitute.org to get your name on the list.

How do I donate to support the project?

If you would like to help defray the cost of additional kits and allow more people to participate, please indicate this on the sign-up form. You may bring cash or a check made out to Shaw Institute (indicate Blue Hill PFAS Project in the memo line) when you pick up your test kit, or simply drop off your donation at Shaw Institute. You may also donate through PayPal on the Institute's "Donate" page. Please be sure to select "Blue Hill PFAS study" in the drop- down box. Thank you for your generosity!

What do I get for participating?

You will receive a customized report containing your lab results as well as information to help you interpret the results. The Shaw Institute will also provide a list of resources to help you research your mitigation options, if necessary.

Where should I collect a sample from my home?

Collect your sample from a faucet that accesses unfiltered tap water. Do not collect the sample from a sink inside your home if you have a filtration system in place because this may remove some PFAS.We want to understand what is in the groundwater at the source of your well. If you are interested in purchasing a second test to determine the effectiveness of your installed filtration system, that can be arranged separately.

When will I get my results?

You should receive your test results within four weeks of returning your test kit to the Institute. Test kits will be shipped to the Cyclopure lab once a week. The turnaround time for analysis is approximately two weeks. Once results are received, Shaw Institute will prepare your customized report and send it to you by email.

What if I have PFAS in my well?

Both Maine and the U.S. EPA have set safety thresholds for PFAS levels in drinking water. The EPA's recommended levels for two PFAS chemicals, PFOA and PFOS, were recently reduced to 4 parts per trillion. Maine currently recommends 20 parts per trillion, although the state is expected to follow EPA recommendations. Your results report will indicate whether your levels exceed safety thresholds.

If you are concerned about PFAS levels in your water, there are many options for filtering out the chemicals. The right option for your home depends on your levels, budget, and degree of concern. We will provide links to resources to explore mitigation options.

How will my data be used?

The results from your home test will be included in the study dataset to understand broad PFAS contamination patterns in Blue Hill. Public reports and presentations will only contain aggregate results (e.g., averages for a street or neighborhood) so individual homes cannot be identified.

Will my results be available publicly?

No. Your name and the exact location of your home will not be shared publicly in reports or online maps. Data from private residences will only be reported in aggregate.

Will this study include testing of anything other than water?

No. This research study will only test surface water and well water. However, we expect that these results will point out key areas of concern. Future projects may analyze soil or fish tissue to better understand sources and environmental effects.