

**From:** Schuren, Alyssa  
**Sent:** Saturday, March 19, 2016 4:23 PM  
**To:** ParrDoering, Ellen  
**Cc:** Chapman, Matt; Desch, George; Ellis, Rebecca  
**Subject:** Drinking Water- Testimony Needs  
**Attachments:** 2016-03-16 Bennington Informational Memo\_DEC\_FINAL.pdf; PFOA\_health\_facts\_\_031116.docx

**Categories:** PFOA

Ellen- I understand that we are testifying on drinking water issues this week. It is timely, as I also have a few press calls on the topic. George and I were able to discuss your conversations from last week. I appreciate that you are pulling together a 101. Below are a few other thoughts of mine. Let's talk on Monday. -AS

Suggested Handouts for Legislature:

- Drinking Water 101
- DEC N. Bennington Memo w/updated test results (draft attached)
- PFOA fact sheet from VDH (attached)

Drinking Water 101- please have it include (brief sketch):

- Overview of federal laws, state laws
- Overview of permitting programs, sanitary survey program
- Types of systems
- Testing regimen
- Roles- local, state level

Here is my proposal for our testimony:

- 101 Review
- Characterization of how the state is doing
  - (We need to discuss this)
- We are reviewing our processes (We need to discuss all this)
  - In light of Flint, Michigan- what we are doing
  - In light of North Bennington- what we are doing
  - Categories on my mind include:
    - Rule changes
    - MCL changes
    - Public communication SOPs
    - Enforcement SOPs
- Set a timeline to report back

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<http://www.anr.state.vt.us/dec/dec.htm>

**Agency of Natural Resources  
Department of Environmental Conservation  
Waste Management and Prevention Division  
802-828-1138**

**MEMORANDUM**

To: Concerned Citizens

From: Alyssa Schuren, Commissioner, Department of Environmental Conservation  
Chuck Schwer, Director, Waste Management and Prevention Division

Date: March 16, 2016

Subject: N. Bennington Informational Update

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**March 2016: Results from Water Well Testing**

On March 16, the Department of Environmental Conservation (DEC) received 134 of 185 water samples collected in North Bennington during the weeks of March 1 and March 8. These samples were taken within a 1.5 mile radius around the former Chemfab plant in North Bennington.

Of these 134 water samples, 94 showed the presence of perfluorooctanoic acid (PFOA) at concentrations above the Vermont Department of Health's (VDH) health advisory level for drinking water, 20 parts per trillion (ppt). PFOA was not detected in the North Bennington public water supply.

**Background & February 2016 Results from Water Well Testing**

After seeing the news of PFOA-contaminated municipal water wells in Hoosick Falls, New York, in early February, an individual contacted local legislators, who reached out to DEC expressing concerns about the former Chemfab property in North Bennington.

Chemfab began operation in North Bennington in 1970. It was purchased by Saint-Gobain Performance Plastics in 2000 and shut down in 2002.

DEC sampled five private drinking water wells and the North Bennington municipal water supply in February. The samples were analyzed for perfluorinated compounds as well as volatile organic compounds. The five wells tested showed the presence of perfluorooctanoic acid (PFOA) at concentrations above the VDH drinking water health advisory level. PFOA was not detected in the samples collected from the North Bennington municipal water supply.

**Immediate Response**

DEC, in partnership with VDH, is focusing its immediate response on identifying the full extent of drinking water contamination and making sure that impacted residents have safe water to drink. DEC has shared the sampling results with affected homes and businesses and has notified local officials, the VDH, and the EPA. DEC has also engaged television, print and radio media outlets to ensure that concerned citizens know who to contact with questions or concerns about PFOA.

- **Bottled water:** If you are a private well owner within 1.5 miles of the former ChemFab plant, please contact the DEC at 802-828-1038 for free bottled water.
- **Point-of-Entry Treatment Systems:** For any water supply which tests positive for PFOA above the VDH Vermont Health Advisory level of 20 ppt within the 1.5 mile radius, Saint-Gobain will install a point-of-entry system (POET). These systems use carbon filtration to remove the PFOA out of the water. DEC will require water testing and maintenance of the systems to ensure the systems operate properly.
- **Websites:**  
For updated information please consult the DEC website:  
<http://www.anr.state.vt.us/dec/PFOA.htm>  
  
For information about the health effects of PFOA please visit the VDH website:  
[www.healthvermont.gov](http://www.healthvermont.gov)
- **Responding to Health Concerns of Residents** - VDH staff have contacted each home that has received sample results that identify the presence of PFOA and are also available to talk with anyone with questions about potential health effects of PFOA at 800-439-8550. Information about potential health impacts of PFOA can be found on the Health Department website at [www.healthvermont.gov](http://www.healthvermont.gov).
- **PFOA Blood Testing Update** - The Centers for Disease Control & Prevention/National Center for Environmental Health has agreed to conduct the laboratory analysis for PFOA in blood for North Bennington residents with contaminated wells. CDC will also provide technical support in epidemiology, study design, and sample collection to the VDH. VDH is working in partnership with Southwestern Vermont Medical Center in Bennington to develop a blood sample collection process. Because PFOA stays in the blood for two to four years before reducing levels by half, there is no need to take blood samples before people stop drinking water containing PFOA.
- **Informational Call Line** – DEC has an informational call line for residents concerned about PFOA contamination. The call line will be available on an ongoing basis, from Monday to Friday, 8 a.m. to 4:30 p.m., at 802-828-1038.
- **PFOA Testing Across Vermont** – Routinely, EPA samples municipal wells across the United States for emerging chemicals of concern as part of an effort to determine if new chemicals should be added to the list of contaminants monitored by all public water systems. In Vermont, 10 municipal supplies were sampled for PFOA, and other emerging chemicals between 2013 and 2015. PFOA was not detected in any of the municipal water wells: Bennington, Barre City, Brattleboro, Burlington, Jay Peak Basin Complex, Lyndonville, Rutland City, Shaftsbury, South Burlington and Winhall Stratton Fire District 1. Since that sampling, the North Bennington municipal water supply has also been sampled. PFOA was not detected.

- **Surface Waters & Sediment Sampled.** On March 10, DEC conducted sampling for PFOA in rivers, lakes and streams in the North Bennington and Bennington area. The Walloomsac River, Paran Creek and Lake Paran were sampled. The Bennington College Campus Pond, Paran Creen onsite pond, and Hamon Road Pond were also included in the sampling. All waters are within the 1.5 mile radius of the former Chemfab facility. DEC expects to receive the results of these samples in approximately 2-3 weeks.

### **Long-Term Investigation**

An important next step will be to investigate the nature and extent of the contamination and identify the source(s) of contamination. DEC will also continue to evaluate the need to expand water well testing outside the 1.5 mile radius. Such an investigation may include soil, sediment, river water and groundwater sampling; review of historical records and databases, and other investigations and analyses. At this time, the Chemfab property on 1030 Water Street is believed to be one possible source of the PFOA. However, a thorough investigation is necessary to determine what the source and extent of the PFOA contamination is and how the contamination traveled to drinking water sources.



March 11, 2016

## Facts about PFOA for residents of North Bennington

### Background

The Agency of Natural Resources/Department of Environmental Conservation tested a number of water sources near the former ChemFab plant in North Bennington, and results show varying levels of a potentially harmful chemical, perfluorooctanoic acid, or PFOA. The public water supplies in North Bennington and Bennington have been tested and are not affected, but residential and commercial wells have test results ranging from non-detect to nearly 2,500 parts per trillion (ppt).

Additional residential wells in the area that may have been affected are being tested. Residents who have contaminated wells or are waiting for test results should not drink or use the water for preparing food, cooking or brushing teeth. The State is providing bottled water to homes within a 1.5 mile radius of the former ChemFab plant.

*The public drinking water supplies in North Bennington and Bennington have been tested and are NOT affected.*

### Information line and to request a water test

To find how you can get your water tested, or for residents with general questions, concerns about PFOA contamination, call the Vermont Department of Environmental Conservation:

**Tel: 802-828-1038** Monday - Friday, 8:00 a.m. - 4:30 p.m.

### For questions about potential health effects of PFOA

Call the Health Department at 800-439-8550 Monday - Friday, 7:45 a.m. - 4:30 p.m.

### What is PFOA?

PFOA is a manufactured chemical that belongs to a group of chemicals used to make household and commercial products that resist heat and chemical reactions, and repel oil, stains, grease and water. These chemicals are widely found in nonstick cookware, stain-resistant carpets and fabrics, water repellent clothing, paper and cardboard food packaging and fire-fighting foam.

PFOA does not break down easily and therefore persists for a very long time in the environment, especially in water. Its toxicity and persistence in the environment means it is a potential danger to human health and the environment.

**Why is PFOA contamination a health concern?**

PFOA levels in blood are related to increased lipids, uric acid and liver enzymes in the blood, which may or may not lead to effects on an individual's cardiovascular system, kidneys or liver. Health care providers may want to consider a liver panel, lipid panel and a uric acid analysis for patients who have drinking water contaminated with PFOA.

Studies have also shown a correlation – but not a cause-and-effect relationship – between levels of PFOA in the blood and high blood pressure, low birth weight, some immune system effects, thyroid disease, kidney cancer and testicular cancer. The Health Department does not recommend specific screenings for these outcomes unless you and your physician believe they are warranted based on symptoms.

In Vermont, the Health Department has established a health level of 20 parts per trillion (ppt) for drinking water. If water contains more than 20 ppt, it should not be used for drinking, food preparation, cooking, tooth brushing, or any other way it could be ingested. If you have drinking water that is contaminated or potentially contaminated with PFOA, the most important action to take now is to stop exposure by using only bottled water or water from a known safe source.

**Where can I learn more about PFOA studies?**

For information on exposure and health studies conducted on a large population, visit the C8 studies: <http://www.c8sciencepanel.org/>

The Agency of Toxic Substances & Disease Registry (ATSDR) is part of the Centers for Disease Control & Prevention. ATSDR published a toxicological profile for PFOA and the related perfluoroalkyl chemicals. ATSDR uses a weight-of-evidence approach to evaluate whether the available data supported a link between exposure and a particular health effect. You can view the webpage and download the PDF of the toxicological profile to read more about the scientific studies. <http://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237>

EPA also has a draft health effects document for PFOA, listed as Health Effects Document for Perfluorooctanoic Acid. <https://peerreview.versar.com/epa/pfoa/>

***If my well water is contaminated with PFOA, or I am concerned about possible contamination—*****Should I drink the water?**

No. Use bottled water or water from a known safe source for drinking, food preparation, cooking, brushing teeth – any way that you could ingest the water. The Department of Environmental Conservation is distributing bottled water to residences that have PFOA detected in their water, and those potentially affected but not yet tested.

**Is it OK to shower or bathe?**

Routine showering or bathing would not likely cause a significant exposure. Studies have shown very limited absorption of PFOA through the skin.

As a precaution, we recommend shorter showers, and use of bathroom fans (or opening bathroom windows) to help remove water droplets (aerosols) formed during showering. The shorter the shower, the lower the possible exposure to PFOA-contaminated water. We also recommend that children or people with skin conditions (rashes, cuts, abrasions, etc.) avoid prolonged contact with PFOA-contaminated water in the bath. Children are more likely to swallow water while playing in the bath.

**What about brushing teeth?**

Use bottled water for brushing teeth.

**Can I do laundry and wash my dishes?**

Yes. Doing laundry or washing dishes is not likely to pose a significant exposure to PFOA. If washing dishes by hand, you can minimize exposure by wearing rubber gloves, especially if you have a rash, cuts or abrasions on your hands.

**Can I use a humidifier?**

If you must use a humidifier, only use water from a safe source.

**Will it be OK to eat produce from my garden, eggs from our chickens, or fish from the Walloomsac River?**

We know people have many questions about this. The Department of Environmental Conservation is developing a sampling plan for testing soil and water from the river, and the Health Department is reviewing the science and reaching out to the Agency of Agriculture to help answer these questions.

**Should I be concerned about fishing in this area?**

Currently, there is no specific advice to avoid fish due to the risk for PFOA, as fish do not appear to accumulate PFOA in their tissues. The State will be testing fish soon though.

Residents should be aware of the Health Department's fish advisory for the Hoosick River in Vermont. We advise that no one should eat fish from the Hoosick River, due to contamination with different chemicals, Polychlorinated Biphenyls (PCBs), which do accumulate in fish. The Vermont fish health alert is on the Health Department's website. Go to [www.healthvermont.gov](http://www.healthvermont.gov), then to 'fish' in the A-Z listing.

### **What about the water in my swimming pool?**

PFOA does not move very well through the skin. People who swim are unlikely to absorb very much through the skin. However, people may accidentally swallow pool water. If your water is contaminated with PFOA, we recommend draining and refilling your pool after your water is treated to reduce any potential exposure.

### ***PFOA and Human Health—***

#### **Is PFOA found in humans?**

Studies show that human exposure to PFOA is widespread, and that most people have low levels of PFOA in their blood. PFOA does not break down in the human body and stays in blood for years after exposure, so levels of PFOA detected by a special blood test would reflect total exposure over many years. The time it takes for PFOA blood levels to go down by half is about two to four years, assuming there is no additional exposure to the chemical.

#### **What are the health effects of the levels that have been measured in the drinking water?**

We do not have an accurate way to predict what health effects people will experience if their water is contaminated. We have summarized the health effects from scientific papers, and suggest that people with contaminated water talk to their health care providers about their concerns.

#### **What are the effects on animals?**

The health effects on animals are likely to be similar to the effects on people. If people have PFOA in their water, we recommend they do not drink the water and that they not give their pets the water.

#### **Has EPA developed exposure limits for PFOA? Does PFOA accumulate in the body?**

The State is in contact with the EPA regarding the PFOA contamination of private drinking water.

EPA sets Maximum Contaminant Levels (MCLs) for chemicals that can be found in drinking water. So far, EPA has not set an MCL for PFOA. EPA advised the town of Hoosick Falls, NY to set a drinking water level of 100 parts per trillion (ppt) for PFOA.

Here in Vermont, the Health Department set the drinking water level for PFOA at 20 ppt, which is lower than what EPA advised. The Health Department based the calculations on the same science

that EPA used, but Vermont accounts for exposure to children early in life. EPA considers exposure to adults. When people are exposed to PFOA, the chemical stays in the body. These chemicals do not dissolve in fat like other persistent pollutants. Instead, they accumulate in the blood.

### ***Medical Care—***

#### **Is there a medical test that can tell me if I have been exposed to PFOA?**

Yes. PFOA can be measured in blood, but the test is not routinely done. PFOA is found at low levels in the blood of almost all Americans. The results of blood tests can be used to determine if a person's PFOA blood level is lower than, similar to, or higher than blood levels found in the general population.

#### **Does the Health Department recommend blood testing for PFOA?**

People who have PFOA in their drinking water are very likely to have more PFOA in their blood than what is found on average in people in the U.S. The Health Department is committed to arranging blood tests for PFOA for people who have contaminated wells. The Centers for Disease Control & Prevention has agreed to assist Vermont with laboratory analysis. The Health Department is also working in partnership with the local hospital, Southwestern Vermont Medical Center on blood sample collection. Updates will be provided on the website, through listservs and through our health alert messaging network as information is available.

#### **When should I see a health care provider?**

If PFOA is detected in your water, or if you or family members have signs or symptoms that you think are caused by PFOA exposure, discuss your concerns with your family's health care provider. The Health Department is providing health care providers in the area with information and recommendations.

#### **Should we wait for the water tests before seeing our doctor?**

It would be helpful for your health care provider to know the results of your water test, but you don't have to wait to discuss your concerns with your health care provider.

#### **What can be done to take PFOA out of the body?**

There are no medical interventions that will remove PFOA from the body. The best intervention is to stop the source of exposure. This means people who have PFOA in their water above 20 ppt should not drink the water.

#### **What other resources are available in Vermont?**

Vermont 211 is a resource for all Vermonters. Call 211 from any phone to get free, confidential advice, including information on mental health services.