

AN ACT establishing a commission to investigate and analyze the environmental and health impacts relating to releases of perfluorinated chemicals in the air, soil, and groundwater in Merrimack, Bedford, Litchfield, and Londonderry.

HB737, Chapter 335:1, RSA Chapter 126-A: 79-a, Laws of 2019

Meeting

MINUTES

Friday, January 14, 2022, Virtual Meeting

The meeting was called to order at 10:04 AM by the Chair.

Present: Laurene Allen (Town of Merrimack), Joseph Ayotte (USGS), Chris Badazian (Town of Bedford), Rep. Jacqueline Chretien, Ms. Amy Costello (UNH), Rep. Bob Healey, Hon. Mindi Messmer (environmental advocate), Rep. Maureen Mooney, Hon. Nancy Murphy (Town of Merrimack), Rep. Rosemarie Rung, Ms. April Webber, Mr. Michael Wimsatt (NHDES), Rep. Gary Woods (NH Medical Society)

Rep. Rung notified the Commission that it was operating outside the executive order but had permission from the NH Speaker of the House to meet remotely. Rep. Rung also noted that due to the remote nature of the meeting, a roll call would vote be conducted. Rep. Rung also specified that since there is a public participation portion of the meeting, people participating by phone should notify Amy Rousseau at DES.

Minutes

Hon. Nancy Murphy moved to approve the December 2021 minutes as submitted, seconded by Rep. Mooney. The minutes passed as submitted.

Ms. Tarah Somers of ATSDR, shared with the Commission a health consultation report on the drinking water contamination related to the Saint Gobain site in Merrimack and the surrounding area. ATSDR is creating two documents: one on the private drinking water wells, and a separate document focused on the public drinking water system. The latter will come out hopefully later this year. The goal is to use the environmental data moving forward to determine if we think it is a concentration that might harm health. Any member of the public can write comments on the documents to ATSDR. The comments will be addressed before document's final version. Ms. Somers said they want the public's voices to be heard and encourage people to submit comments before March 1, 2022.

The report covered five towns that surrounded the site, including Merrimack, Litchfield, Londonderry, Bedford, and Manchester. The first main conclusion was that before the actions began in 2016 to reduce exposures, drinking private well water contaminated had increased the risk for harmful effects for some community members. Most of the private wells that were evaluated in the five towns were contaminated with PFAS. PFOA was detected most frequently and at the highest concentrations in the area.

PFAS mixtures effects detailed in our report 237 of 2745 wells had PFAS at levels that could harm infants, young children. About 9% of those wells had levels that could harm all age groups. The possible health effects from that exposure would mainly include developmental effects, with increasing risk and possible additional risks for immune or liver effects at the highest PFAS level. Also, other sources of PFAS exposure, such as food or consumer products, could increase the risk of harmful effects beyond that risk from drinking the private well water alone. The remaining wells with lower or no detections of PFAS, are not expected to have caused harm; however, the conclusion is uncertain. Many wells were sampled only once, and the actual PFAS levels could have fluctuated over time. In addition, the knowledge about the health effects of the PFAS evaluated is still evolving, and many of the wells contained other PFAS, which has not been studied enough to evaluate the potential for health effects. Finally, the increased risk of developing cancer from exposure to PFAS in the area is uncertain. There is suggestive evidence that both PFOA and PFOS, two of the PFAS contaminants, are carcinogenic. But the science is still too limited to quantify that risk numerically.

The second major conclusion that was reached in the report is that currently, harmful exposures to PFAS and private wells have been minimized by providing alternate water and taking other actions. However, people who continue to drink contaminated, untreated, private well water may still have an increased risk for harmful effects. More than 750 private wells in the area have been switched to treated public water or are now equipped with point of entry treatment systems.

ATSDR Recommendations:

- Private well owners who had potentially harmful exposures in the past should discuss their exposure with their health care provider and consider taking steps to reduce other potential PFS exposures, such as those from consumer products containing PFAS.
- Residents should reduce exposure from background sources of PFAS by avoiding or limiting the use of products containing PFAS.
- ATSDR recommends that nursing mothers continue to breastfeed and contact their health care providers with specific concerns. ATSDR is available to consult with health care providers as needed.
- To help protect formula-fed infants from potential exposure, caregivers should use premixed formula or reconstitute dry formula with water sources not containing PFAS.
- Residents using point of entry treatment systems to remove PFAS from a private well should have the systems maintained and checked periodically to ensure removal effectiveness.
- Residents continuing to drink from private wells should monitor their well water quality and should work with the local authorities to take appropriate action to remove harmful contaminants if needed.

ATSDR will work with the New Hampshire Department of Environmental Services and DHHS to identify private wells with PFAS levels of concern that have not been addressed through

previous actions. In addition, ATSDR is available to discuss individual results with private well owners, and will continue to be available upon request to answer any other kind of public health questions that arise related to this site. Finally, ATSDR will make changes and modify the language and respond public comment. ATSDR will hold a virtual public meeting on February 2nd at 6:30 PM.

Ms. Allen asked about the definition of contamination, the low exposure versus high exposure, where the cutoff is, were the MRLs from 2018 used to assess the relative concentrations, and how will NH's drinking water standards be incorporated. The response was that ATSDR takes the environmental sampling data and estimates the given amount of water people drank, and then compares it to what is known in toxicological studies on that contaminant to calculate minimal risk levels (MRL).

Hon. Messmer asked is ATSDR going to update the MRLs based on the newer reference doses coming out at EPA and in regard to Table 1 of the summary report, requested a column stating the NH MCLs. A second added column would have the number of private wells that exceed the MCLs. She also asked if there was a sense for how many more than 825 exceed the state's MCL for PFOA. Ms. Somers replied that the toxicological profile group is currently updating and revising the profile to reflect current science and working on updating values. Adding columns can be considered to help the community have a better understanding. ATSDR does not have numbers for how many wells would have exceeded the state MCL.

Hon. Murphy asked what efforts are being taken to quantify the cancer risk by PFAS and if there is anything ATSDR is doing specifically to support the education of providers. Ms. Somers answered that ATSDR does not quantify cancer risks for people, but relies on EPA and sometimes state numbers to quantify cancer risk. ATSDR is working with APPLETREE partners in NH to bring up again how we can do more provider outreach and education. The problem has been bumped due to the COVID-19 pandemic. The northeast conference, which is happening in 2022, may be an opportunity to raise the issue.

Rep. Rung commented that the public is getting overwhelmed, and they don't know who the subject matter expert is they should be listening to. Rep Rung encourages ATSDR and NHDES, and DHHS to seek opportunities to issue joint and or central communications.

NHDES Update

Mr Wimsatt is preparing 232 Notifications Letters to properties within 500 feet of wells with an AGQS violation for a mailing scheduled for 1/19/22.

| Town | Count of Properties |
|-------------|---------------------|
| Bedford | 115 |
| Litchfield | 75 |
| Londonderry | 7 |

| | |
|-------------|-----|
| Merrimack | 35 |
| Grand Total | 232 |

NHDES issued a comment letter on the soil management plan for the Flatley Property on 1/11/22. NHDES issued a comment letter on the soil management plan for the NHDOT F.E. Everett Tpk. (FEET) project on 1/6/22. NHDES issued a letter on Addendum 13 on 1/4/22.

SGPP presented a work plan for residential well sampling and Addenda #13 to the sampling plan relative to the 2019 AGQS. Golder uses a 500' buffer on wells >AGQS to identify proximal properties for addition to the sampling list. Currently, Golder is retesting wells with PFOA results between 10 and 12 ng/L.

As of 12/28/21 (date of the last tally – precedes Addendum 13): 3,437 properties identified for sampling (5 more than December report), 3,404 access agreements sent (96 more than December report) (*Return Rate ~ 66%*), 2,053 samples were collected from water supply wells (90 more than the December report), 936 properties offered bottled water (18 more than December report).

The work plan and addenda have addressed the majority of properties within the CD, however, NHDES expects a few more addenda will be needed in the coming year to fill out sampling, mainly at the periphery of the CD. Additionally, there are numerous property owners that declined to have their wells sampled after two notices from Golder Associates that could choose to be sampled in the future.

Saint-Gobain's consultant will be conducting post-RTO stormwater sampling, timing dependent on confirmation of effectiveness of RTO and safety concerns working around Merrimack River. The Supplemental Site Investigation comment letter is currently under review.

SGPP submitted timely information in response to the Letter of Deficiency pertaining to the use of the bypass stack, including a permit application for an amendment to the Temporary Permit TP-0256. In addition, ARD conducted an inspection on January 6, 2022, to review the corresponding records that related to the reported bypass operation and discuss the RTO monitoring plan. ARD is currently in the process of reviewing the information, and it is anticipated that ARD will be issuing a response to the LOD information, an inspection report, and a letter related to the completeness of the permit application soon. ARD has also requested clarification information pertaining to their review of the stack test report and anticipates a final letter on that issue.

Mr. Bandazian asked about amplification with regard to the testing results that were summarized December 21. Mr. Wimsatt replied that in the Golder update report, among the 121 wells sampled, 15% stayed the same, 39% went up and 46% went down. The seasonal effects, neighborhood changes in conditions, or order of magnitude of the changes are unknown. In the December report, it is estimated that the cost for Saint Gobain to provide bottled water is costing \$40 \$45 a month, far lower than the cost of extending waterlines.

Mr. Bandazian continued that the brown in the color maps is area within the Consent Decree where testing is to be done. It covers a great area where waterlines would have to be extended, and that from conversations last year, testing was anticipated to be completed in 2021. The longer it takes to complete that testing, the longer it will take parties to get to the bargaining table to hammer out a permanent solution. Extending waterlines through permanent resolution in 2022 is off the table. The question was raised as to why it's taking so long for Golder to complete testing in areas we know need to be tested. Mr. Wimsatt answered that DES is working to negotiate significant alternate water provisions to a number of areas within the Consent Decree and are hopeful to be close to resolutions. Construction of some waterlines could occur in 2022 to some projects, and if an agreement is reached, they could be designed and go out to bid relatively promptly.

Ms. Allen, asked about reimbursement for treatment. Mr. Wimsatt answered that they are communicating about eligibility criteria for treatment via ARPA funds but does not think Merrimack is going to be punished for installing treatment early.

Ms. Messmer asked if the 232 letters about to go out included the 3437 identified for sampling. Mr. Wimsatt replied that the notification letters are sent out to anybody who's within 500 feet of an exceedance and that could be inside or outside the CD area. The 3437 properties identified for sampling are identified specifically by Golder within the Consent Decree area for sampling.

Ms. Messmer asked about the DES numbers of exceedances compared to ATSDR numbers. Mr. Wimsatt replied that each report has to be examined based in its criteria and region covered.

Ms. Weber asked about point of entry systems and Mr. Wimsatt said that it has been a concern. DES is working not just on the PFAS problem but just generally on what may be significant expenses and public water systems in Southern New Hampshire.

NH DHHS Updates

Dr. Bush, provided an updated ATSDR PFAS Factsheet for healthcare providers (<https://www.atsdr.cdc.gov/pfas/docs/PFAS-Short-Review-508.pdf>) and said there is an upcoming presentation on PFAS at NNE Nurse Practitioner Conference in April (being organized by Peg DiTulio who serves on SB85).

There is a new FAQ from the NH Insurance Department regarding coverage of PFAS testing. (<https://www.nh.gov/insurance/consumers/documents/health-documents/20220110-pfas-faq.pdf>) More information from NH Insurance Department can be accessed by calling 1-800-852-3416 or 603-271-2261, or by email at consumerservices@ins.nh.gov.

Dr. Bush asked that Commission members continue to connect concerned community members with the Cancer Concern Review Team (CCRT) (Whitney Hammond, Chronic Disease Director at NHDHHS, DHHSCCRT@dhhs.nh.gov or 1-603-271-4959, or visit the NH Comprehensive Cancer Control Program at <https://www.dhhs.nh.gov/dphs/cdpc/nhcccp.htm>.)

A public meeting is scheduled for Thursday 1/27/22 at 6:30 via remote platform. Press release, social media, and website content are all in development and DHHS requests your help in circulating to communities.

Public inquiries are coming in by phone and email following the original press release and presentation (around 20 in total). Many of the contacts were touched by cancer personally and shared questions as well as a willingness to support DHHS efforts. Those calls and emails have plateaued at this point. A final “case definition” and a questionnaire to assess residential and occupational history is being developed.

The written response to the email from Rep. Rung and Mindi Messmer on 1/07/22 addresses the following:

As said in the last meeting, the sensitivity analysis showed no difference when comparing cancer rates to national averages.

The DPHS Cancer Investigation Protocol is based on the [CDC Cancer Investigation Guidelines](#). These guidelines will inform the next steps in the Merrimack Investigation, including data analysis. The 4 phases to the Cancer Investigation Protocol are the following: Step 1: Initial contact and response, Step 2: Assessment (including preliminary data analysis), Step 3: Determine feasibility of further epidemiologic study, and Step 4: Conduct an epidemiologic study to assess the association between cancers and environmental causes.

The decision to conduct an investigation is not based solely on the SIR calculation. Multiple factors impact this decision; it is primarily based on whether the evidence as presented fits the definition of a cluster and the biologic plausibility that the cancers could share a common etiology.

The decision to move beyond Step 1 and Step 2 to a more detailed investigation is based on a number of factors. At this point, DHHS has considered the statistical stability in the SIRs at the town level, the small number of observed cases, the steady (non-increasing) trend over time as well as the weight of scientific evidence linking potential environmental exposures to the observed cases. They continue to refine our case definition with all of this in mind.

Sensitivity testing for SIRs has been completed with comparison populations that have resulted in mixed results of SIRs being both lower and higher with the US reference population. This is reflective of the fact that cancer and related risk factors are not solely environmental and differences in demographics (e.g., age, race, income, etc.) and health behaviors (e.g., smoking, cancer screening, cancer early detection, etc.) vary by state.

The analysis has been run using two reference populations (1) rest of NH and (2) rest of US. Updated data will be shared during the Community Meeting on 1/27/22. It is important to consider that there are many factors (called confounders) that affect the ability to compare NH health statistics to US health statistics. Two of the most significant factors are race and screening rates. Another factor to consider is differential environmental exposure. Since these factors vary substantially across the US compared to NH, it makes it very challenging to meaningfully compare NH cancer rates to overall US cancer rates.

Some examples include: the incidence (occurrence) of bladder cancer appears elevated in some NH towns, when compared to the US. But, that signal disappears when compared to the rest of NH, due to the fact that we have higher-than-average rates of bladder cancer in NH. We know this to be a fact across NH and Northern New England, and this finding has been linked to elevated levels of Arsenic in drinking water. (Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5939854/>).

The incidence (occurrence) of breast cancer appears elevated in some towns, when compared to the US. But that signal disappears when compared to the rest of NH. This finding can be explained by NH's higher-than-average use of mammography for the early detection of breast cancer. The more cancer you look for through mammography, the more cancer you will find. Alternatively, for "screening-amenable" cancers such as cervical and colorectal cancer you would expect to see lower rates among populations accessing higher rates of screening such as PAP tests and colonoscopies. (Reference: <https://pubmed.ncbi.nlm.nih.gov/26147578/>)

For a statewide summary of cancer rates in NH compared to New England and the rest of the US, see the most recent Cancer Burden Report. <https://www.dhhs.nh.gov/dphs/cdpc/documents/nhcancer-2012-2016.pdf>

For additional information on the impact of race on cancer rates, the work by Dr. Judy Rees from the NH Cancer Registry and the Norris Cotton Cancer Center is recommended. This work was previously presented at the Pediatric Cancer Conference in 2021. See the conference recordings here: <https://geiselmed.dartmouth.edu/nhscr/childhood-cancer-initiatives-2021/>

Regarding a question about RMS rates in pediatric and adult population in the Merrimack, Londonderry, Bedford, Litchfield area, there is no reason to look at RMS in the Merrimack area. There is no evidence to suggest that RMS rates are elevated in this area, nor is there scientific evidence to suggest a possible environmental exposure.

As a reminder, in the Seacoast Cancer Cluster Investigation which was specific to RMS, there were no clear findings regarding a common environmental exposure. A summary of the initial investigation on the seacoast can be found here: <https://www.dhhs.nh.gov/dphs/hsdm/cancer/documents/rye-cancer-cluster-052017.pdf>

Regarding information on the average age of onset for the kidney and renal pelvis cancers, and colon, prostate, bladder, and non-Hodgkin Lymphoma, DHHS responds that the current investigation is focused on kidney cancer. Nothing unusual compared to the rest of NH, or the rest of the US is seen at this time.

There is no specific information on the average age of onset for specific cancer types. For additional information on cancer incidence in NH, please see the NH DHHS Data Portal Cancer Page (Cancer Incidence by Type): <https://wisdom.dhhs.nh.gov/wisdom/topics.html?topic=cancer> and The National Cancer Institute SEER Website: <https://seer.cancer.gov/statfacts/html/kidrp.html>

Regarding how DHHS is compiling reports of cancers, DHHS has additional background information on cancer surveillance in NH, there is the most recent [Cancer Burden Report \(2012-](#)

2016), which is produced every 5 years.

<https://www.dhhs.nh.gov/dphs/cdpc/documents/nhcancer-2012-2016.pdf> Please also see the DHHS Data Portal – Cancer Topic Page

<https://wisdom.dhhs.nh.gov/wisdom/topics.html?topic=cancer>

Regarding community concerns, the NH Cancer Program maintains a log of all reports and concerns. Many of these concerns do not progress beyond education on cancer for the individual expressing a concern, as they may be reports of different cancers with different etiologies or a lack of known environmental exposures scientifically linked to the cases of concern. The detail of these reports are likely to be relatively limited in order to protect privacy and confidentiality.

Regarding animal tumors/deaths tracking, DHHS maintains focus on the state law that established the NH State Cancer Registry and provides the Department with authority to collect these data is specific to humans and the North American Association of Central Cancer Registries, Standards for Cancer Registries: <http://www.gencourt.state.nh.us/rsa/html/x/141-b/141-b-mrg.htm>

In talking with Dr. Abby Mathewson, the NH Public Health Veterinarian, DHHS is not aware of any state run cancer or tumor registry for animals. It is possible that some academic or research institutions study this. There are some reference labs that conduct biopsies. However, it is important to note that any data that might exist would be extremely biased given the cost of conducting those procedures.

ATSDR's Health Consultation Report was shared. The [report](#) was released on December 18, 2021: "Evaluation of Per- and Polyfluoroalkyl Substances (PFAS) in Private Wells near the Saint-Gobain Site in Southern New Hampshire, Merrimack, New Hampshire" (<https://www.atsdr.cdc.gov/HAC/pha/StGobainPlastics/St-Gobain-PFAS-HC-PC-508.pdf>).

There will be a public meeting held in early February to share the report and gather community feedback. Technical comments should be submitted by March 1, 2022, to be considered during the Public Comment Period for a response in the final document. Please provide any technical comments on the document by submitting them by email to ATSDRRecordsCenter@cdc.gov or mail them to:

Agency for Toxic Substances and Disease Registry
Attn: Records Center
4770 Buford Highway N.E., MS S-102-2
Chamblee, Georgia 30341

Ms. Messmer asked if a formal request is needed to look at the RMS rates for the five-town area, with the response being that the question has been answered. Ms. Messmer also asked if the state looks at other cancers, or do they look/count at the first incidence of cancer, e.g., someone has colon cancer and then they get kidney cancer. Ms. Hammond replied that someone who is initially diagnosed with kidney cancer then is later diagnosed with colon cancer would have both tracked in the cancer registry and multiple kinds of cancer are tracked, too.

Ms. Messmer also asked if DHHS looked at whether people in Merrimack are more likely to have several kinds of cancer versus other parts of the state, but Ms. Hammond said that was not looked at.

Legislative Update

[[link to spreadsheet](#)] Rep. Mooney identified 11 House bills due out by February 17 and explained the link at the top of the chart is to login to support a bill.

Rep Rung deferring review of a draft letter requesting St. Gobain to agree to expand the outer boundary of the Consent Decree.

Ms. Emma Paradis resigned from the Commission due to relocation out of NH.

The next meeting will be on February 11th.

Rep. Woods moved to adjourn, seconded by Ms. Murphy. The motion passed and the meeting was adjourned at 12:00 pm.

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