

**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 and Litchfield.**

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

**Meeting**

**MINUTES**

**Friday, March 12, 2021, 10 AM, Virtual Meeting**

Attendees: Joseph Ayotte (USGS), Chris Bandazian (Town of Bedford), Rep. Ralph Boehm, Dr. Kathleen Bush (NHDHHS), Sen. Sharon Carson, Rep. Jackie Chretien, Sen. Gary Daniels, Nicole Fordey (Litchfield resident), Nancy Harrington (Town of Merrimack), Rep. Bob Healey, Hon. Mindi Messmer (environmental advocate), Rep. Maureen Mooney, Hon. Nancy Murphy (Merrimack resident), Rep. Rosemarie Rung, Michael Wimsatt (NHDES)

Guests: Amy Rousseau (NHDES, attended to provide technical support); Jeffrey Marts (Senior Hydrogeologist with the NHDES Hazardous Waste Remediation Bureau, attended to provide presentation on Southern New Hampshire PFAS Sampling)

The meeting was called to order at 10:00am by Chair Rep. Rosemarie Rung.

Rep. Rung read the Right to Know notice.

Ms. Fordey (clerk) called the roll for attendance. Commission members stated their location and if anyone was in their presence. Rep. Rung noted that Ms. Costello, Ms. Paradis, and Rep. Woods reported they were unable to attend today's meeting. Rep. Rung confirmed a quorum was present.

Sen. Daniels moved to approve the minutes from the February 12th, 2021 meeting, seconded by Ms. Harrington. There were no suggested amendments or corrections to the minutes. The motion to approve passed by roll call vote.

Rep. Rung noted that this meeting would be the first after the November elections where the Commission is fully staffed. Rep. Rung asked if there were any nominations to be brought to the floor for a new chair for the Commission.

Sen. Daniels stated he would be willing to serve as chair if that was the desire of the Commission.

Rep. Mooney was recognized to provide a nomination. Rep. Mooney stated she would like to nominate Sen. Daniels as chair of the Commission. Rep. Boehm seconded the nomination.

Rep. Rung asked if there were any other nominations for chair.

Ms. Messmer stated she would like to nominate Rep. Rung to continue as chair of the Commission. Ms. Murphy seconded the nomination.

Rep. Mooney asked if each candidate would give some remarks in regard to their nomination.

Sen. Daniels stated he would be interested and has been following the Commission's deliberations for a few months. Sen. Daniels stated he thinks he could probably bring in some new direction, other things that maybe the Commission needs to look at to move along, and in some ways seems to have become a little bit stagnant, such as how the subcommittees have not met very often. He stated he is aware that there haven't been resources available for the subcommittees to meet and he is checking to see if the Senate may be able to be able to supply some of the resources needed to allow subcommittees to meet. He reported he is interested in all of the opinions that everyone has, recognizing the Commission has a lot of information and knowledge put together, and that he could help draw some of these things that the Commission has been working on to a conclusion.

Rep. Boehm was recognized for a question. He stated that in the past when Sen. Dietsch was chair, the Commission was able to take advantage of Senate resources that are not available to Representatives. Rep. Boehm asked Sen. Daniels if Senate resources would be available to the Commission if he was chair, if Sen. Daniels' staff would be available to help with scheduling and hosting Commission meetings.

Sen. Daniels replied that he thinks they probably can, depending on the schedule that is set up, he checked recently and if we continue to have the meeting as we're having now, this one here is being run by NHDES, right, but certainly Fridays, seem to be more open for subcommittee meetings. He doesn't know how that works out with members on the subcommittee, but believes that we can find times to do that, that can work around particularly the Ways and Means and the Finance schedule. Those are going to be the heavy things that are coming up over the next couple months.

Rep. Chretien was recognized to ask a question. She thanked Sen. Daniels for taking her question and asked if he could provide examples or specifics on items that he feels are stagnating and could be moved forward.

Sen. Daniels replied that one of the things he was looking at, knowing that this whole Commission is about PFAS, but he doesn't know and hasn't seen anything that identifies what the harmful PFAS are versus the not so harmful, when it comes to things like drinking water. He knows there are thousands of compounds out there and stated that's something that the Environmental Subcommittee could probably look at, separating those harmful compounds off. Sen. Daniels stated that he also would move forward in getting more communication out to the public so that it's an educational effort to get them

informed on what's happening in their community, and draw the interest and the comments from them as well.

Rep. Rung asked if there were any further questions for Sen. Daniels. Seeing none, Rep. Rung provided her remarks.

Rep. Rung recognized it has been a real struggle with these meetings since COVID hit and it was difficult to transition to remote meetings. However, we did it successfully. As the standing committees started meeting, we lost our resources for meeting on Zoom via a General Court account. However, NHDES has helped to get these meetings regularly scheduled. They have now told us that they can now schedule our subcommittee meetings. It is something we've been pursuing for a couple months. She thinks some of the issues Sen. Daniels raised have been resolved. She stated she wanted to address a remark made by Sen. Daniels that some PFAS may be harmful, and some may not be harmful. We all have to acknowledge that all PFAS present a risk, because they are non-biodegradable, and every single one accumulates in the environment. She thinks having some basic understanding of that chemistry, and to understand what studies have been done so far which have established a causal relationship between the PFAS and health impacts, are important to bring to this commission. She would be very happy to carry on as chair, thinks she has done a great job, but recognizes the Commission members are the best judge of that and that will be reflected in the vote.

There were no questions for Rep. Rung.

Rep. Rung instructed the Commission to vote on the motion for Sen. Daniels to become the chair. Ms. Fordey (clerk) conducted a roll call vote of members present.

Mr. Bandazian no  
Rep. Boehm yes  
Dr. Bush abstain  
Rep. Chretien no  
Sen. Daniels yes  
Ms. Fordey no  
Ms. Harrington no  
Rep. Healey yes  
Ms. Messmer no  
Rep. Mooney yes  
Ms. Murphy no  
Rep. Rung no  
Mr. Wimsatt abstain

Mr. Ayotte and Sen. Carson joined the meeting at approximately 10:15am. Sen. Carson noted difficulty joining the meeting as a panelist.

Mr. Ayotte abstain

Sen. Carson abstain, stating this is as she was not present when the question was called.

With 4 yes votes, 7 no votes, and 4 abstentions, the motion fails.

Rep. Rung instructed the Commission to vote on the motion for Rep. Rung to remain as the chair of the Commission. Ms. Fordey (clerk) conducted a roll call vote of members present.

Mr. Ayotte yes

Mr. Bandazian yes

Rep. Boehm no

Dr. Bush abstain

Sen. Carson no

Sen. Daniels no

Ms. Fordey yes

Ms. Harrington yes

Rep. Healey no

Ms. Messmer yes

Rep. Mooney no

Ms. Murphy yes

Rep. Rung yes

Mr. Wimsatt abstain

With 8 yes votes, 5 no votes, and 2 abstentions, the motion passes.

Rep. Rung remains as chair of the Commission.

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### **Southern New Hampshire PFAS Sampling Update**

Mr. Jeffrey Marts, P.G., was recognized for a presentation. Mr. Marts explained that he is a Senior Hydrogeologist with the NHDES Hazardous Waste Remediation Bureau, Emerging Contaminants Section. Mr. Marts has been working as the project manager of the Saint Gobain site since the summer of 2018. He was asked to present an update on the status of the Southern New Hampshire PFAS sampling that's been going on. Starting out with a map showing the results for PFOA, groundwater samples that were tested for PFOA, and those PFOA results are shown for statewide. Throughout the remainder of the talk, he is going to be showing results just for PFOA because PFOA is the primary PFAS that is driving ambient groundwater quality exceedances in the Southern New Hampshire area. For the most part, most wells are over the standard for PFOA when there is an exceedance. There are occasional exceptions where PFOS or some other compound may exceed, but by far the vast majority of exceedances are due to PFOA.

[Referring to the map of PFOA detections] Mr. Marts explained that throughout the presentation he uses the same color map. Green circles represent wells that have tested for PFOA between 0 and 6 parts per trillion (ppt), up to about 50% of the ambient

groundwater quality standard (AGQS). Circles that are red are over the standard of 12ppt, but below 70ppt, which is the previous standard. The purple dots are over 70ppt. The yellow and orange dots are intermediate between 6ppt and 4ppt. The Southern New Hampshire area that I'm referring to is within the breakout box, it zooms in, and this area is unique in the state in that we have hundreds to over thousands of wells that have been impacted by PFAS in an area measuring tens of square miles. Across the state there are detections of PFAS at individual sites, and we do have instances of groundwater contamination of water supply wells, but nothing to the degree that we're seeing in Southern New Hampshire.

In the Southern New Hampshire area, this slide shows some known PFAS sites. The pink stars are individual remediation sites that have tested groundwater in monitoring wells for PFAS and it has been detected above AGQS. As you can see there are a number scattered throughout the area, and these are fairly discreet sites where they've had a release on site or releases on site and groundwater is contaminated in some cases there may be off site contamination, but they're fairly small in scale for the most part. These types of sites range from closed landfills to the Manchester Airport where there's been foam releases, to various commercial establishments that may have used PFAS chemicals. Then we have the Saint Gobain Performance Plastics (SGPP) consent decree areas. SGPP is known for an air release from their facility through their smokestacks, and in 2018 NHDES and SGPP entered into a consent decree. As part of that consent decree agreement, there were two lines that were generated, the pre-GMZ line which is shown in red on this map, and that line encompasses most of the wells that tested above the 70ppt AGQS that was in effect at the time in 2018. Then the second area is the outer consent decree boundary, which is shown in blue, so that is the area that SGPP is responsible for ongoing sampling due to the lowering of the AGQS to 12ppt for PFOA.

There are four main sources of water supply well testing data that are coming in. There's a fifth that I didn't put on this slide because it's a fairly small component. The primary ones are SGPP, which is doing sampling inside the consent decrees so they're responsible for evaluating the extent of AGQS violations resulting from discharges from their facility. This began in 2019 when they submitted a work plan which coincided with the lowering of the AGQS to 12ppt. Since then they've submitted seven addenda to that work plan, and they provide biweekly and bimonthly status reports to NHDES that are available on the Onestop website. NHDES is conducting sampling outside the consent decree. Currently that sampling is focused in the Town of Londonderry. They started that sampling through private well testing requests that have come in through our website, and currently the sampling is focused around notification of AGQS exceedances where properties surrounding an AGQS detection above the standard, we buffer 500 feet around that, and notify property owners that exceedance has occurred. Those abutting or within that radius landowners are encouraged to sign up for testing on the well testing request form.

Other sources of water supply while sampling that Mr. Marts will not talk about in too much detail are discrete sites, so those are the pink stars that he mentioned on the second slide, most of that sampling is conducted by responsible parties at the request of NHDES

as part of permits or ongoing sampling. Then there is a public water supply well testing that is conducted by the public water system operators. The fifth source of data is homeowners that choose to collect a water sample, submit it to a laboratory on their own, and then transmit the results to NHDES.

To review, this next slide shows the air release pathway, since that is the primary reason we're talking about so many wells that are contaminated. In the case of SGPP, they had a manufacturing facility that emits PFAS from their smokestacks, this has gone on dating back to the 1980s when it was formerly ChemFab. These chemicals are transported through the air with the wind currents, where they deposit on the ground as either dry deposition or wet deposition when it's raining, and the PFAS go into the soil and as rain leeches through the soil column it moves the PFAS through the soil, and eventually into overburdened aquifers or soil aquifers, then into the underlying fractured bedrock, where it can be captured by other bedrock well or an overburdened well, the two types that we see in the area.

The next slide shows the consent decree boundary, the SGPP consent decree boundary in the dark blue line, and the underlying Color Map is the two air models that NHDES did for TCI in 2019 and SGPP. This represents the total air deposition of PFOA for the facilities that NHDES modeled. The warmer colors, the yellows, represent the higher amounts of modeled PFOA deposition, and the purple and blues represent less deposition.

Mr. Marts has also shown the water supply well data that we have in GIS. This data is not comprehensive, so there are more wells that are not shown, they're just not included in the database, but it gives you an idea of where water supply wells are located. Nowhere in this modeled area is there a model to be zero deposition. Mr. Marts would like to point out to the Commission that there are a lot of inherent uncertainties in the modeling, there are a lot of assumptions and unknowns that the modelers have to estimate or guess and put into those models and do lead to two different outputs. Therefore, he uses this, from a groundwater standpoint, as a guide in his investigation.

Ms. Messmer stated that there does not appear to be much overlap between SGPP and TCI sources as shown by the model. She asked if this was a correct interpretation of the data presented.

Mr. Marts replied that there is overlap and it's just that in the scale that is being shown it's difficult to see that, and this is a nonlinear color ramp, meaning that the concentrations and the yellows and the air deposition that has occurred in the yellows is substantially higher than the air deposition in the blues and the cooler or intermediate colors. He thinks there is a degree of overlap between the air deposition that was modeled for TCI and SGPP.

Rep. Rung asked if the cooler colors are predicting less air deposition. Mr. Marts confirmed that was correct. Rep. Rung stated that it seems that some of those wells have had exceedances of the AGQS and she is trying to understand if this modeling is predictive of contaminated wells.

Mr. Marts replied that there is a general correlation between some of the concentrations that we see, for example, in the yellow area around SGPP we tend to find that wells that have been sampled in that yellow area, in many cases exceed 70ppt so you'll see those on subsequent slides within the pre-GMZ as purple dots. Therefore, they do have a higher concentration in the groundwater so there is a general predictive value, there's some correlation. You can't predict every single well because of some factors that will be discussed further in the presentation, however, generally you can derive some level of prediction from the air modeling.

[On the next slide] Mr. Marts stated that the map view on the lower right is a distribution of PFOA in water supply wells. This screenshot happens to be from Bedford. What we find is that there's a very complex spatial distribution of PFAS, you can have water supply wells that are less than 50% of the AGQS as shown in green, and even non-detect, adjacent to a property with a well that exceeds AGQS so it's this very complex map pattern, and some of the factors that go into, contributing to this complex map pattern include differences in air deposition. You may have higher levels of deposition in some places and lower total deposition in other areas. The surficial geology plays an important role both in terms of the types of sediment, and also the thickness of the sediment that plays a role in influencing the distribution of what we see in groundwater in the subsurface, as well as the bedrock. There's some evidence that structural geology, major structures, may influence and rock types may influence concentration in some wells, but also on the individual neighborhood well level, I think depending on what fractures and individual well hits and how those fractures are connected to the overburden and the plumbing, if you will, of the bedrock, plays a role in this complex pattern that we're seeing in this view. Finally, time-related factors also play a role. By time-related factors, I mean, changes in chemicals that have been released through time from the facility. SGPP, for example, has changed their formulation over time and that changes daily to hourly, to some extent. There was a major change in 2006 when they largely phased out the C8 compounds and went to shorter chains, C6 compounds. You could imagine older groundwater may contain more longer chain compounds relative to newer water, or water that recharged into the aquifer a long time ago, compared to water that recharged into the aquifer more recently. Another component to the variability is seasonal variation. There's emerging evidence that as the seasons change, and the recharge into the aquifer varies, there may be some differences in the concentration that we see.

[Next slide] Mr. Marts stated that this figure is a conceptual diagram illustrating potential release mechanisms and pathways for PFAS to get into the subsurface. It's also a good figure for a regional analogy. For example the purple blob here represents a discrete spill, you can think of these discrete spills as the pink stars that were mentioned earlier, individual sites that have had releases that have gotten into the subsurface and then might have one type of PFAS chemistry. We also have air emissions from SGPP, and potentially TCI, that have a PFOA dominated pattern of PFAS that is spread or blanketed across the area at different degrees based on some of the air modeling and whatnot. What you can have in some cases is a commingling of different sources of PFAS and that

makes it difficult in some cases to discern one source from another, particularly as you get farther from the air emissions sites.

Moving on to the well sampling and SGPP, since 2019 SGPP has been taking well samples in the consent decree area. In this slide, on the left-hand side, are the older dates and newer dates are on the right. The number of items being counted goes up, with a maximum of 2000 at the top of that graph. So far, SGPP has identified nearly 2000 properties for sampling and they've also sent out nearly 2000 access agreements to those property owners to request permission to sample. That's represented by the green and the blue lines respectively. Right now, they've been finding a pretty good rate of return, they've gotten about 61% of access agreements returned. That's indicated by this gold line here. A little over half of the access agreements they send out get returned and then they can schedule sampling. The number of wells sampled to date numbers just over 900, that's represented by this orange line, and the properties that are currently being offered bottled water are illustrated by this gray line and the current count is 540 properties are being offered bottled water by SGPP. These vertical lines, the thinner vertical lines, represent the addenda that are submitted to NHDES to the workplan, and they include the next round of properties to be evaluated in a sampling program. There was a several month gap from the time that the Superior Court judge enjoined the standards last December to when House Bill 1264 was passed that reinstituted those standards, so that resulted in a delay of the sampling project.

Mr. Marts moved to the next slide, explaining that it is one of the maps from SGPP's most recent addenda. The dark green color illustrates lots that SGPP's consultant has confirmed are connected to public water. There's quite a few lots within the consent decree area that are connected to public water. There are blue colored lots, solid blue, those are fronting water lines and SGPP describes those as water is likely, but it has not yet been confirmed, so you could still have a well. The brown lots have been identified for sampling. The blue hatched lots have been identified in the most recent addenda, those are the most recent letters that have gone out to the residents. The pink colored lots are the lots that are currently being offered bottled water to the residents. Those have AGQS exceedances on them. The white areas represent lots that have not yet been brought into the sampling program or identified in one of the addenda.

The following slide zooms in on a portion of Bedford to illustrate in more detail than the overall map. One question received from a lot of residents that call is Why was my property selected for sampling? There's really three buckets that are bringing people into the sampling program. One of the first priorities is proximity to an AGQS exceedance, so anybody that exceeds the AGQS – SGPP's consultant buffers that property boundary by a 60-foot buffer, and any adjoining property that's clipped by that buffer is then included in the next sampling addenda. For example, the color scheme for PFOA is different on this map, this is a map produced by Golder, and PFOA that's over the standard is shown as yellow, a yellow circle or a yellow triangle. The second bucket is what Mr. Marts calls “quasi-random,” and that includes properties that are in areas where there's relatively low sample density, and that is to try and capture any new areas that have not yet been identified. It is called “quasi-random” because some of the people who have been



included in that bucket have called the SGPP hotline and inquired about being sampled. The third bucket is new, related to primarily addendum six and seven, and that includes neighborhood scale sampling where they've identified entire blocks for sampling.

Stepping outside of the consent decree over to Londonderry, where NHDES is doing sampling, depicted on the following slide. The sampling initially focused on a number of well requests that have come in that were somewhat random scattered throughout the towns or gave us a good overview of PFAS town-wide, and from that, current focus on sampling is on areas of a 500-foot notification buffer around AGQS exceedances, currently the sampling is primarily focused within these orange shaded areas on this map.

The next slide zooms back out to the entire town of Londonderry. In the last few months, NHDES has sent out over 1200 notification letters to residents. As of earlier this week there were 71 samples pending for analysis at laboratory collected by the Bureau and the Bureau had over 138 appointments scheduled for additional samples to be collected. This map shows 675 groundwater samples that have been collected outside the consent decree, so in the eastern two thirds of Londonderry roughly. As a note, this map does not include public wells.

The next slide shows a regional view. This map shows water lines as blue just to get an idea of the water distribution system and residential supply wells that have not been sampled shown as these little black dots, to the extent we have them. Then you can see the range of purple. Zooming in on the SGPP area, think back to that their deposition figure, we had the bright yellow generally in this area. The majority of wells range from purple in close to over 70ppt, grading into some reds, and as you go further out, you get a mix of red grading into the green so you're less than 50% of AGQS. There's some predictiveness to that, their deposition model is not inconsistent. Down in the lower left we have the area around TCI Amherst. We have other discrete sites like the Merrimack landfill and looking out into Londonderry.

The next slide touches on the geologic factors, where we think the overburden plays a role. So if you look at the map on the right, there's a very complex distribution here with wells that are 50% of the AGQS to over 70ppt. When you drill in, now we have some triangles, which represent overburdened wells, so those are screen in the soil, they're relatively shallow, and you can see that consistently those are all, with the exception of one in this view, over standard, including some that are over the 70ppt standard. Whereas the bedrock wells which are shown as little circles are uniformly below standard. What this is telling us is that this package of sediment here is acting to some extent as a shield and helping to protect the water quality for the underlying fractured bedrock. That's an important takeaway from this slide.

The following slide moved over to Londonderry. Londonderry is a little different in that they (compared to the other towns involved that we've talked about including Litchfield, Bedford, and Merrimack) have less, in terms of square mile area, they have less glacial outwash and alluvial deposits so they're more dominated or we would characterize them as primarily dominated by till or shallow till or shallow bedrock. What we find is that in

areas colored red here, you tend to see in a topography, this is LiDAR topography, a rough texture to the topography, which would suggest that there's very little sediment over the rock and rock is close to the surface. We find that the wells generally in that area tend to exceed standard for the AGQS of PFOA. Whereas if you look at the area shaded here in sort of a yellow tan, the character of the topography as represented by LiDAR, tends to be smoother, and in some cases even fluted, so kind of a drawn-out linear feature, going from the upper left to the lower right. Mr. Marts believes we are looking at a till deposit that was in place at the bottom of the last glacier that slid over, and that fluted texture represents ice flow direction. Similar to the previous slide, where the alluvial deposits seem to impart some protection to the underlying bedrock, this basal till, or thicker till layer, appears to impart to some extent some protection to the underlying bedrock wells.

Mr. Marts advanced to the next slide, looking at the temporal variability of PFAS he talked about a little bit in the beginning of the presentation. We don't have a big data set for residential water supply wells, but there are nine wells that have been sampled by NHDES and SGPP going back to 2016. We looked at these nine wells because they've been sampled four or more times through time, and we've wanted to get a sense of what the temporal or seasonal changes might be, if any. Here we plotted the highest sample from each well and the lowest sample from each well, the highest samples are colored blue the low samples are colored red. When we looked at the months, or the quarter, like there wasn't a clear pattern, so we wanted to drill in a little deeper to what was going on in terms of the hydrologic state of the bedrock. We looked at water level data from a USGS well that's monitored in Pembroke, and we used that as a proxy for climatic conditions and the hydrologic state of the bedrock-- whether it was that the water levels were increasing or decreasing. What stood out was that seven of the nine low PFOA sampling events tended to occur on recessionary limbs when the water level in the bedrock well was decreasing or near the bottom of an inflection point, before recharge events began. So, again, seven of the nine samples of low PFOA tended to occur during drier times when less recharge is making its way into the bedrock aquifer. The wells we looked at were from Bedford and Merrimack, and we have one example of a well that we noticed was sampled twice by our Bureau and had a fairly noticeable difference in PFOA. When we plotted that against the bedrock well in Pembroke, the first lower sample of PFOA that came back at just under 30ppt occurred before the inflection when recharge started to happen, and the sample collected after recharge began came back at 49ppt.

Mr. Marts recognized that he shared a lot of information and asked if the Commission had any questions.

Rep. Rung thanked Mr. Marts for the presentation and asked for his permission to post the powerpoint slides to the Commission's website. Mr. Marts said that would be fine and he would provide a pdf of the slides to the Commission.

Ms. Harrington asked if Mr. Marts was involved with acquiring access agreements for the private wells.

Mr. Marts replied that Golder is SGPP's consultant. They are an environmental consulting company is doing this work that NHDES has requested on behalf of SGPP. They are the ones that secure the access agreements, they send those out. NHDES actually doesn't require access agreements, that's something that most consulting companies won't go on somebody's property without, without having an agreement in place.

Ms. Harrington responded that maybe Mr. Marts could provide assistance as she has requested for the past three or four meetings a list of Merrimack residents who had not responded to the request for access agreements, and she had offered the Town's assistance to encourage residents to respond. To her knowledge, the Town has not received a list of those names.

Mr. Wimsatt responded that NHDES has a draft letter for the towns to use as a template, if they would like, for sending correspondence encouraging residents to respond to access agreement requests. NHDES has a list of the properties and they're going to be working with Golder, the consultant for SGPP, to get the actual mailing addresses. Within the next week or so NHDES should have a package for each town that wants to do that, of the four towns.

Ms. Harrington thanked Mr. Wimsatt for the response and stated that this was sufficient to answer her question.

Dr. Bush thanked Mr. Marts for the presentation and stated that was really a lot of data and super interesting and also very complicated, so she is trying to kind of process it all. From a public health perspective, she wanted to put out there and sort of plant a seed that the finding about the well type is super interesting, and if there is an opportunity to be providing guidance when people are drilling wells in a way where we think we can reduce or perhaps eliminate exposure, we need to really pay attention to that data. We need to think about how to implement public health interventions that take advantage of that finding, knowing that maybe some of this is kind of preliminary it's only so many points, but it's something that Mr. Ayotte and I have talked about before, in terms of public health intervention, we can eliminate exposures from the water through technology and our well design, but need to pay attention to that point, and really think about how we design policy that guides that.

Rep. Chretien stated she wanted to return to the point made about there being seasonal variation in the levels and depending on recharge and asked Mr. Marts if he has looked at patterns in the PFOA sampling results based on sampling time and is that something that residents could maybe potentially use as knowing or being able to kind of mitigate their own risk. For example, saying oh, in general, maybe I want to avoid the water in the spring, a little bit more than in the winter, or is it much more complicated than that.

Mr. Marts replied that he would caution residents in that we only are looking at 10 wells, the nine from Bedford and Merrimack and one from Londonderry, so it's a pretty small sample set. There was one that actually is from Merrimack that he didn't point out on that

chart, but it's near Wildcat Falls and looking at air photos it looks like there's a river that goes over some big outcrops, and that well had low PFOA during the springtime. Presumably when the river stage was high you might have had more induced recharge from the river, potentially diluting PFOA so it's really not quite as simple as that. We're using this data to inform ongoing monitoring and type of frequency and schedule that we'd be considering. That's how he is starting to think about this data set.

Ms. Messmer thanked Mr. Marts for the presentation and stated she has two questions. It appears that the consent decree area has a 60-foot buffer around exceedances of AGQS, whereas outside of the consent decree area, the buffer is 500 feet. Can you describe to us why that differs? The 60-foot envelope seems very small to me when you compare that to all the sorts of things we look at to protect. It seems like that is a very small buffer area, which could impact whether or not we're actually finding people who are drinking water that's above the standards. Am I correct in that, what I saw from that?

Mr. Marts replied that yes, that's correct. Golder Associates, as part of their work plan, came up with this 60-foot buffer to guide subsequent addenda that they submit on an ongoing basis. That's to really kind of hone-in on this geospatial concept of the nearest neighbor tends to, a neighboring well tends to, have a concentration similar to their adjoining neighbor, although we've shown many examples where that is not necessarily specifically true. That's specific to the SGPP workplan for going through the water supply well sampling. The 500-foot buffer is a statutory requirement on NHDES to provide notification. That applies statewide for exceeding AGQS, and it's not particular to PFAS, it would apply to any contaminant that exceeds ambient groundwater quality standards. The 60-foot offset being said, it doesn't mean that they're not going to sample in between there because the sampling to date shows that you can't predict what an individual well is going to test at until you actually test it. There's some probability that any well in this area could test above standard. It's that the probability changes depending on where you are within the consent decree. Just because you're not touched by a 60-foot offset doesn't mean, eventually, that the sampling program isn't going to include those lots.

Ms. Messmer stated she had a follow-up, stating that Mr. Marts mentioned the 500-foot NHDES requirement to notify, is that superseded by those 60-foot buffers, or are those people within the consent decree area also getting a 500-foot notification from the state?

Mr. Marts replied no, that it was decided that the people within the consent decree are not currently getting that 500-foot notification that is occurring outside the consent decree.

Ms. Messmer asked why that is not occurring.

Mr. Marts reported that this was in place prior to him joining the project and asked Mr. Wimsatt to provide background. Mr. Wimsatt reported the notification requirements are what make people aware that they might be located near a well that's above standards. We have multiple notifications of people within the consent decree area over time. Just from a practical standpoint, because of the density of sampling that's going on, if you do notifications every time you get an exceedance of the AGQS within 500 feet, many

people would be getting multiple notifications because of just the overlap of these areas. So obviously we're working to get this whole area inside of the consent decree sampled as promptly as possible. We're trying to prioritize that sampling based on where we see the exceedances which is what Mr. Marts has been describing that Golder is doing. Then the expectation is that we will get all of these wells sampled and, for those that are above standards, get them alternate water.

Ms. Messmer replied not understanding that rationale, that it seems to be reverse to what you would want to do, that the people in the consent decree area should know and be notified, that you should apply the statewide standard within the consent decree area as well. She still doesn't understand why that's happening, but she has highlighted that for the rest of the Commission members to chew on a little bit.

Ms. Messmer's second question is with respect to the seasonal variation that Mr. Marts pointed out in those wells. From her point of view, that says the recharge is happening from the overburden to the bedrock wells seasonally, so you would expect them to be much more diluted in the Spring. But actually, the water level is higher so that tells her there's a lot of contribution from the overburden coming into those wells. Ms. Messmer asked if that is borne out by a comparison of the vertical flow in those between the bedrock and overburden in the area.

Mr. Marts replied that unfortunately we don't have downhole geophysics to characterize exactly what's going on and in some of these wells, but that's kind of a really complex time-consuming data point to gather. So right now, it's a working hypothesis that because there's recharge of PFAS predominantly from the overburden into the underlying bedrock, the overburden is recharging the underlying bedrock and that's where the PFAS is. The working hypothesis might be that a deeper, older fracture would tend to have cleaner water with respect to PFAS. Unfortunately, I don't know if AGIS have individual water bearing zones for some of the rock wells. Some of the work that's gone on in Vermont, where they have done some more detailed studies on an individual well basis, the impression, at least as of a year ago when we were talking to colleagues over there, was that shallow fractures and shallow bedrock tended to be more contaminated than the deeper fractures, but there is a caveat that they have a thrust fault package over there where there's a higher degree of compartmentalization of the bedrock aquifer, which is different than what we have here.

Ms. Messmer asked if there are any plans in the following site investigation work for SGPP to have clustered wells installed to evaluate that, so we can know whether or not well construction, as Dr. Bush mentioned, is an issue.

Mr. Marts replied that we do have a number of clustered wells on the SGPP property and one telling point that's very interesting is the well triplet that has both the highest concentration of PFAS we've talked about, one that measures close to 70,000ppt in the shallow overburdened well that's maybe on the order of 15 feet deep, is immediately adjacent to a bedrock well that has the lowest concentration which is less than 5ppt PFOA. They are immediately adjacent to each other, and there is a huge vertical

concentration gradient at that particular point at the facility. So basically, going from 4ppt or a few parts per trillion, up to 70,000ppt as you move, maybe 100 plus feet vertically in the aquifer, so we do have some information on that.

Ms. Messmer thanked Mr. Marts for the response.

Mr. Ayotte asked how much is known about the individual wells themselves in terms of well depths, casing lengths, anything like that that should be publicly available and if Mr. Marts has looked at that as a whole to evaluate any potential relationship.

Mr. Marts replied that some of the early data that NHDES collected was somehow merged with well construction information where available. We have maybe 150 or fewer 100 well results for PFAS that compare with the well construction records. Another thing that came out of that, looking at those data and plotting PFOA as a function of say well casing length and overburden thickness, there appears to be a relationship of lower PFOA to the longer your casing and the thicker the overburden.

Mr. Ayotte stated it's always hard to tease out relationships with depth and bedrock wells because you don't really know where the fractures are, unless you've done detailed investigations. However, when you evaluate a big group of wells, and we've done this for nitrate and for arsenic, wells that were less than 300 feet deep, with shorter than 20 feet of casing, tended to have higher concentrations of nitrate than wells that were greater than 300 feet deep with more than 20 feet of casing and everything in between. We can ferret out some useful, potentially, relationships from those kinds of data. The other thing that occurred, which may occur for PFAS as well, is that differences by rock type may be important. Some rocks may contaminate and decontaminate at different rates than other rock types where you have wells installed. The other one that was sort of an oddball finding was that concentrations in bedrock wells for MTBE in Rockingham County, with at least one set of data that we looked at, were higher in deeper wells. That was sort of an oddball thing to find, why would that be, but when we looked at it a little deeper it turned out that those deep wells also were the lowest yielding wells. Under the idea that you drill deeper if you don't have enough water when you're installing wells. So deep wells was a surrogate for low yield which was a sort of a surrogate for low dilution or low ability to move contaminants away once they get in. All those things would probably be very complexly important in evaluating this kind of thing. But back to interventions. If any of that could be ferreted out it's possible that well casings could be lengthened or other well installation or well repair methods could be used to shut off the upper parts of the bedrock well and make water only accessible for the deeper parts and wells that can handle it. There may be some relatively easy things to do that would reduce exposure, to get at what Dr. Bush was mentioning, but it would probably require, of course, a little study of that before people got too carried away.

Mr. Marts thanked Mr. Ayotte for his comments and mentioned that in a slide he took out of the presentation in the interest of time, he showed the Gove Member of the Berwick Formation, and the wells tended to have lower concentrations relative to the surrounding portions of the Berwick Formation, so Mr. Ayotte's comments are spot on.

Ms. Messmer stated wanting to get back to her initial question going back to the air deposition model. She noted the complexity of the situation, in that we are dealing with both air deposition of the contaminants and also migration of groundwater that's been contaminated. She asked if Mr. Marts has a feel for how far the plume extends, and how it overlaps. It must be very difficult to determine and almost mindboggling to figure out exactly how the contaminants are distributed and how we can help protect people. She asked if Mr. Marts is looking at the contribution of air vs. contribution of groundwater flow.

Mr. Marts replied under the SGPP facility itself, the concentrations that are measured in groundwater are often in the 1000s of parts per trillion from PFOA and the really high 1000s to, you know, over 10,000 is probably localized primarily to the facility maybe stepping out a little bit, you're about 1000 in some of the residential supply wells that were previously in operation immediately around the facility, and then it quickly drops off into the hundreds of parts per trillion and that's a function of the nonlinear air deposition. So, really high concentrations being deposited right around the facility and dropping off. That plume discharge is probably primarily going to Dumping Brook and, to a lesser extent, to the Merrimack River. The plume from the facility and any discrete releases that have occurred there is fairly limited. We did take a look at the aquifer maps around the consent decree boundary and tried to just have a general sense to evaluate if there is a lot of groundwater flowing out of the consent decree boundary. For the most part, coming away from that analysis, we would say in general there's not a lot of groundwater flowing out in terms of big surficial aquifers. That's largely because the facility is on the Merrimack River, so things are generally draining towards the Merrimack River in a very general sense. He doesn't think there's massive plumes of groundwater moving out of the consent decree, most of the exceedances that we are seeing are probably more likely related to the aerial deposition in the immediate area around the well.

Mr. Bandazian thanked Mr. Marts for the presentation. He asked if the monitoring wells are same as the discrete sites of public drinking water wells or are they in addition to those wells when you're looking at temporal variability.

Mr. Marts replied that the monitoring wells included in the presentation today were strictly residential water supply wells, and specifically bedrock residential water supply wells. The temporal variability in monitoring wells was not discussed, but there is a growing data set that's fairly robust of quarterly samples from the SGPP facility of both bedrock and overburdened wells. We do have a data set, but it was not presented today. Mr. Bandazian asked if this data was available online for Commission members or the public to look at.

Mr. Marts replied yes, SGPP's consultant does submit annual groundwater reports, and that would probably be the best place to look because they tend to put graphs together so you can see the changes through time for each of their monitoring wells, so he would

steer Mr. Bandazian and anyone else interested to the annual groundwater monitoring reports.

Mr. Bandazian asked how, in the sampling patterns mentioned most recently, neighborhoods are selected for sampling.

Mr. Marts reported the selection is completed by Golder and identification is driven by proximity to bulk exceedances of AGQS. In part, this aids in their determination on how they will proceed with remediation of these wells, aiding in the decision making as they get more data, how things will play out and they will correct the situation that we are finding.

Rep. Rung stated that USGS and NHDES were partnering on a soil sampling study this Fall and into next year, and she is wondering if there's been any learnings from that that we can apply to some of this understanding of the concentration of PFAS in wells. She asked Mr. Marts if he is aware of any of the data from this study.

Mr. Marts reported that we are in the very early stages of collecting that data and asked Mr. Ayotte if any PFAS data had come back from the lab from the few samples already collected.

Mr. Ayotte replied that data has not been returned yet but is expected soon.

Rep. Rung stated she is wondering whether we can be predictive of PFAS concentration in wells based on the loading in soil, that we could predict, okay there's going to be so much leaching left to do. It might also get back to Dr. Bush's suggestion that this might drive some of the decision-making regarding well construction, and where we put them in. If we know there's soil loading of PFAS that would then leach into the groundwater that would be servicing that well, that may influence the decision on whether even to construct that well or not.

Mr. Marts reported that SGPP has collected hundreds of soil samples in the area, mainly within the pre-GMZ, and in general where you see really high soil concentrations you see really high groundwater concentrations. The challenge is going to be as you get into far flung areas where you have exceedances at the 12, 13, up to 20 parts per trillion range, the question becomes can you detect it in the soil at a concentration that would leach and with that inform what the groundwater is. That's an open question because we've certainly seen some soil data that was non-detect which is, the detection limit was around a part per billion in the soil, but we do have exceedances of the 12ppt standard in water, so we think that might be a challenge in some of the low concentration areas.

Seeing there were no further questions, Rep. Rung thanked Mr. Marts for the presentation and indicated the Commission would move on in the meeting agenda.

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**Update from Ms. Harrington from Town of Merrimack**



Ms. Harrington reported she wanted to update the Commission on the concrete pad problem that we had with a building permit here in Merrimack. First of all, SGPP is giving that as a reason for the delay of the installation the RTO. The Town has met with SGPP, and they have developed a plan for the development of the concrete pad and all the other requirements. So that is in process, and that was basically submitted to us officially on February 27<sup>th</sup>. Remember, prior to that time it was a three-page, scratchy, very simple and simplistic, unacceptable application. On the 27th what was needed and what they had been instructed to do was finally submitted so they're working on that now.

An update on the Town's legal activities, on February 22nd the Town filed a lawsuit for injunctive relief, naming NHDES and SGPP, they are both listed. This has to do with controlling the emissions immediately, and that if they could not do that to close down. Similarly, NHDES also filed a lawsuit for injunctive relief with SGPP. The Town has not heard anything from SGPP related to the filing for injunctive relief. But there are things going on with NHDES. On March 4<sup>th</sup>, the Town did file a cease-and-desist order following up on the injunctive relief and we have not heard from SGPP on that. Yesterday [March 11<sup>th</sup>] we filed a temporary restraining order to basically stop causing continual harm to Merrimack, again we're just trying to get some movement.

NHDES and SGPP are having a court hearing on Monday March 15th, and we are able to listen, and I have information that if you want to call and listen to the proceedings. In order to listen to the hearing that phone number is 603-766-5646 and the ID number that you'll have to plug in is 2701949.

Rep. Rung asked what time the hearing is being held.

Ms. Harrington explained that she only learned of the hearing moments ago and reported she will get that information (the time) and make sure that it's provided to the Commission before the end of the meeting.

Ms. Harrington also reported that she is going to be testifying in front of the Air Resource Council, and that hearing is going to be on April 5<sup>th</sup>, 6th, and 12<sup>th</sup>. She is going to be testifying on the 5th. That has to do with the Town's request to put in the buffer for the hydrogen fluoride potential toxic emissions.

Ms. Messmer asked if Ms. Harrington could provide the Commission with copies of the court filings that she referenced, the recent ones.

Ms. Harrington replied that they are in the public record so there's probably no reason she can't share them. She asked Ms. Messmer if she was looking for copies of all of the filings.

Ms. Messmer clarified that she has a copy of the initial filing and is looking for copies of the two follow-ups.

Ms. Harrington reported she was just informed that the hearing is at 9am on Monday.

Ms. Fordey asked if Ms. Harrington could provide any further details regarding the hearing on Monday that would be helpful in encouraging interested members of the public to call and listen in.

Ms. Harrington replied that it's a court hearing with NHDES and SGPP, probably related to the injunctive relief that NHDES had filed.

Seeing no other questions, Rep. Rung thanked Ms. Harrington for the update and indicated the Commission would move forward.

Rep. Boehm left the meeting at approximately 11:20am for another obligation.

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### **Review of Interim Report Recommendations**

Rep. Rung provided the following legislative updates:

HB 256 - the bill to add Londonderry representatives to this Commission - passed unanimously in the House Resources Committee and it passed in the full House. Senator Daniels said he would keep his eye out for it in the Senate. It has been assigned to the Senate Energy and Natural Resources Committee but has not been scheduled for a hearing yet.

HB 271 – this bill is updating the nomenclature of PFCs to PFAS - also passed the Resources Committee unanimously and it's awaiting the full House vote, expected to happen in early April, it will be on the consent agenda.

HB 236 – this bill extends the statute of limitations on chemical and PFAS related injury, that was a bill sponsored by Representative Mooney and Representative Healy, and it passed the Judiciary Committee on a close vote 11 to 10.

HB 368 – this bill requires any source company responsible for water and soil contamination to be responsible for the cost of medical monitoring over a long-term basis for those exposed, and it passed the Judiciary Committee on a vote of 13 to 7.

HB 135, Representative Boehm's bill, cosponsored by Rep. Notter of Merrimack and Rep. Lascelles of Litchfield, and this bill would require parties responsible for pollution of drinking water to be financially responsible for certain consequences of that. Passed Judiciary Committee on a vote of 12 to 9, with an amendment that decreased the time that the polluter would have to pay a monthly amount representative of the average water bill from 5 years to only 2 years.

HB 478 – recent update from Representative Mooney, this bill would require Saint Gobain to continue to pay for remediation past the settlement agreement with MVD, the bill was retained by the Judiciary Committee on a vote of 20-1.

Rep. Rung will update the table of interim report recommendations and send to the Commission.

Rep. Mooney reported she would like to thank those on the Commission who signed in in favor of these bills and testified. She noted that for HB 478, there were 145 members of the public signing in in favor of the bill and only three opposed. She is hoping that this Commission can make it a top priority to stay on HB478 and assist the House Judiciary Committee with whatever questions they have. There was only one speaker during the executive session, who discussed the fact that they were unclear as to court versus legislature as the proper venue for this, so she is hoping this Commission can truly help with that initiative and we can have a great recommendation in 2022 on HB 478. She noted it is very important to have the updates on these bills and that with the scheduling and so forth some of these hearings come up awfully quick. You could check the docket in the morning, and it's different in the afternoon. She stated she doesn't mind sending out notices as she discovers these things to the full Commission so members can know when they should be signing in and testifying.

Rep. Rung thanked Rep. Mooney for offering to help spread this important information to the Commission, that it would be very appreciated and helpful. Rep. Rung noted that those of us that are in the General Court are bombarded with email and requests for signing in and things like that so knowing that Rep. Mooney could be the point person for PFAS related bills would be great. We put this list together and do our best individually to keep up with the docket, but it is difficult to manage, especially with this remote environment where executive sessions could be the same day as public hearings. It's very difficult to know when a vote may be happening as executive sessions don't get noticed specifically, as public hearings do.

Sen. Carson stated there is a bill in the Senate, concerning PFAS, that she filed. It is Senate Bill 111 and it is being heard in Senate Judiciary this week, and it has to do with medical monitoring for PFAS exposure. Rep. Rung thanked Sen. Carson for this information.

Rep. Rung asked Rep. Mooney if she would be able to send emails to the full Commission with information on bill hearings, the link to sign in/register to testify etc.

Rep. Mooney reported she would be glad to do this and will confirm that she has the correct and most recent email address for all Commission members. Rep. Rung noted she will add the assistants for Senator Daniels and Senator Carson to the distribution list, update email addresses as needed, and share this complete email list with Rep. Mooney.

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### **Public Meeting Scheduling**

Rep. Rung reported that Amy Rousseau at NHDES has graciously offered to host subcommittee meetings for the Commission. Rep. Rung received clarification from the

House Clerk that all subcommittee meetings need to be noticed and available to the public, and Ms. Rousseau has agreed to assist with that, for which the Commission is very grateful.

Rep. Rung asked the chairs of each subcommittee (Ms. Messmer for Health, Mr. Bandazian for Environment, and Ms. Paradis for Communications) to contact Ms. Rousseau to schedule at least one subcommittee meeting this month so that each subcommittee can provide an update at the next full Commission meeting.

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### **NHDES Update from Mr. Wimsatt**

Mr. Wimsatt reported that, as mentioned earlier in response to Ms. Harrington's question, NHDES does have a draft template letter for the towns to use to try to reach out to the folks who've received invitations to sample but who have not responded. NHDES still needs to track down a spreadsheet of the mailing addresses. They have the names and the addresses but they're locational addresses so NHDES just needs to get that mailing address information. Mr. Wimsatt will be sharing that with leadership in the four towns as soon as that information is available, hopefully this coming week.

As chair Rep. Rung indicated, NHDES is prepared to host the remote meetings of the subcommittees, and certainly encourage those subcommittee chairs to coordinate scheduling with Amy Rousseau. NHDES is very thankful that Ms. Rousseau has offered to do this. Mr. Wimsatt would also like to work with the Communications Subcommittee to schedule some public meetings in each of the towns (Merrimack, Bedford, Litchfield, and Londonderry). He would like to be on the agenda for the next scheduled meeting of the Communications Subcommittee so that he can talk about pulling together some public meetings to do outreach and share some information and field questions from the residents. That is something that's important to do definitely this Spring and get that going as soon as possible because there's a tremendous amount of interest in the communities and we haven't had those kinds of meetings for some time.

Mr. Wimsatt recognized he usually speaks about the status of the permit and the installation of the thermal oxidizer in his updates, however, given the considerable legal actions which Ms. Harrington described between SGPP, the Town of Merrimack, and NHDES, he is not going to make any remarks about that topic today because it's just too current right now. Although, a lot more information should be available at the next meeting, so we'll look forward to maybe being able to review that subject at the next meeting.

There are parts of his update that are things that he has provided at the previous meeting, and he can say a lot less this time because Mr. Marts has just given a really terrific summary of a lot of this work, but we do have the supplemental site investigation report that's still in review, and it includes preliminary screening of potential remedial alternatives. Once NHDES completes their review of that they will be providing a detailed comment letter to SGPP.

SGPP submitted a work plan in January for additional stormwater sampling. The idea is that that would be conducted after the oxidizer is operational. We would expect that work to be conducted in the late Summer, early Fall. There's been no change in the Flatley development. They voluntarily pulled their application, for local site plan approval, so that has been put on hold and has not changed for the adjoining properties owned by Flatley. No change on the water line, we're still waiting for a remedial implementation report for the work that has already been done to implement the waterline installations, primarily in Litchfield. On the water supply well sampling, Mr. Marts just reviewed that in detail, so Mr. Wimsatt won't do that here. However, he usually lets the Commission know how many properties have not been sampled yet based on SGPP's estimate of that and they, in the past, as recently as the last meeting, he said there were 2600 properties that they estimated that were not yet sampled. Actually, that number has been adjusted because when SGPP was reporting that to NHDES, it did not include the folks who did not respond to their invitation so it's a bigger number, it goes from 2600 to about 3300. So still a lot of work to do within the study area.

Mr. Wimsatt reported that the notes he will provide to the clerk, Ms. Fordey, will have some additional information but it's largely information that he has provided previously so that will be reflected in the notes and in the minutes that Ms. Fordey provides. He stated he would be happy to field any questions.

Rep. Rung thanked Mr. Wimsatt for the update. There were no questions.

Additional information provided by Mr. Wimsatt in notes to the clerk, Ms. Fordey:

SGPP has presented a Work Plan for Residential Well Sampling and SEVEN addenda to the Plan. As of 2/2/2021 (date of last tally):

1953 properties identified for sampling  
1948 access agreements sent  
904 samples collected from water supply wells (90 additional since last month's update)  
540 properties offered bottled water (47 additional since last month)

NHDES requested an updated estimate on the timeline for sampling and permanent alternate water in a letter dated December 17, 2020:

<https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4892196>

NHDES expected a response in the next bi-monthly submittal that was due by the end of February. This response is now considered past due.

SGPP's consultants indicated on a conference call on 1/6/21 that they expect the areas with a high probability of AGQS exceedance (based on sampling data collected to-date) will be addressed in the next few addenda in the coming months. They estimated (on a call on 3/3/21) ~ 3,300 properties (likely developed and without public water – includes properties identified for sampling that have not responded and properties not yet

identified in the work plan or addenda) within the Consent Decree area have not yet been sampled. As of 3/1/21, Golder estimates that initial sampling will be mostly complete by the end of 2021.

NHDES is exploring with SGPP and their consultant the options for implementing alternate water solutions where practicable concurrent with further sampling.

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## **NHDPHS Update from Dr. Bush**

### **NHDPHS PFAS-Related Updates**

1. The Food Protection Program at DPHS is undertaking a rulemaking effort to require bottled water (bottled or sold in NH) to meet the new 4 PFAS MCLs and new Arsenic MCL.
2. During the monthly ATSDR APPLETREE Program Meeting there was discussion related to the Merrimack Risk Assessments. The Reports should be ready this Spring/Summer. We will coordinate with NHDES to bring these reports forward as part of the series of public meetings that will be planned. ATSDR is working on two specific risk assessments for the Merrimack area, one on public water and one on private water, and unfortunately those reports are still in the clearance process. The data validation step that needs to happen where they work actually with NHDES validating the data that goes into those risk assessments as part of the clearance process and those conversations have been happening recently, since the Commission met last, which indicates that the reports are one step closer to being released.
3. Related to the ATSDR APPLETREE grant, we have a new position at the health department that we're calling an environmental health coordinator, they will be responsible for supporting much of the outreach and education activities related to the APPLETREE grant and supporting NHDES for example with things like public meetings. We're excited to be moving forward with that hiring process. They'll also be responsible for engaging stakeholders like health care providers which is a key interest of this commission, as well as SB 85. We will have new capacity within the health department really focused on environmental health communication and risk communication.
4. As this Commission is committed to increasing scientific understanding of the health effects associated with PFAS exposure, Dr. Bush wanted to share a status update on the PEASE PFAS Health Study. The PEASE PFAS Health Study is working on recruitment for their study. Several

organizations will be promoting the study via social media including ATSDR, Testing for Pease, Silent Spring Institute, and other partners across the Region. Please promote this study through your networks as well:

<https://www.atsdr.cdc.gov/pfas/activities/pease/community-fact-sheet.html>

Dr. Bush reported there is a push to share about the study on social media and if any Commission members are interested, she can share social media posts that NHDHHS has developed.

5. We recently met with the representatives from the New England Pediatric Environmental Health Specialty Unit (PEHSU) and discussed potential collaborations related to health care and childcare provider outreach and education. This also seems like a great opportunity to coordinate with the Education Subcommittee.

6. The Biomonitoring Program at DPHS continues to work on finalizing the NH TrACE Study Summary Report. A formal update from Amanda Cosser, the Biomonitoring Program Administrator, is included in full below:

March 10, 2021

Dear HB737 Committee,

Thank you for your interest in results from the 2019 NH Tracking and Assessment of Chemical Exposures (TrACE) Study. The 2019 NH TrACE Study was the first surveillance biomonitoring study to cover the state of New Hampshire. Fifty chemicals were evaluated in blood, serum, and urine from non-institutionalized NH residents who were at least six years old and living in the state for at least six months.

In addition to clinical testing, BiomonitoringNH offered household water testing for hundreds of chemicals and water quality indicators through partnership with multiple programs within the NH Division of Public Health Services (NHDPHS) and the NH Department of Environmental Services (NHDES). This has allowed for the generation of a vast dataset with many paired clinical and environmental analytes giving the program insight into which chemicals may have the most potential to affect the health of NH residents. BiomonitoringNH and the NH Environmental Public Health Tracking Program have been analyzing this data for over a year and are in the final stages of completing the summary report. Once final, it will be shared broadly with TrACE participants, legislators, program stakeholders, and the public.

The TrACE report and aggregate results will be shared once they have been reviewed by NH DPHS leadership. BiomonitoringNH and the NH EPHT Program would greatly appreciate the opportunity to present our findings to you once the report is complete.

More information on the TrACE Study can be found at:  
<https://www.dhhs.nh.gov/dphs/lab/statewide-study.htm>

Sincerely,

Amanda Cosser, MPH  
Biomonitoring Program Administrator

Dr. Bush emphasized that Ms. Cosser is committed to sharing the study broadly with the public once it is finalized and is excited to come to this Commission to present the results. We will be working to put the report and aggregated results on our public health data portal, that will take some time once the report is finalized, but we definitely share the value of public access to data and information. Dr. Bush noted she wanted to make sure that the Commission knew that would be a priority once these reports were finalized.

Additional Resources provided by Dr. Bush:

PEHSU  
[https://www.pehsu.net/PFAS\\_Resources.html](https://www.pehsu.net/PFAS_Resources.html)

Updates on CDC/ATSDR PFAS Initiatives  
[https://www.atsdr.cdc.gov/pfas/related\\_activities.html](https://www.atsdr.cdc.gov/pfas/related_activities.html)

ATSDR Guidance for Health Professionals  
<https://www.atsdr.cdc.gov/pfas/info-for-health-professionals.html>

PFAS Overview  
<https://www.atsdr.cdc.gov/pfas/index.html>

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Rep. Rung reported that a response from Dr. Beahm from NHDES regarding the letter regarding the letter the Commission approved a few months ago regarding the blood sample retention, will be available for the Commission's April meeting. Dr. Beahm has not completed that response yet, but it will be on the agenda for the April meeting.

Rep. Rung also reported that she is going to ask representatives from NH's federal delegation's offices if they want to give an update. There's a lot of movement going on at the federal level regarding regulation and legislation around PFAS so it would be helpful to have an update. There has been movement particularly around physician education and health care provider education opportunities, so Rep. Rung will ask for a short update at our next meeting.

In addition, the Commission should expect reports from our Health Subcommittee, Environmental Subcommittee, and Communications Subcommittee.



Rep. Rung reflected on Rep. Mooney's point from earlier, stating that we're going to be opening up the legislative calendar for LSRs (legislative service requests) in November. That's also the time when we'll be preparing our interim report. When we did that last year we spent time in late summer developing what our recommendations were going to be, our legislative recommendations. Rep. Rung would like the Commission to start that earlier so we have those recommendations in place before the November report. If we wait until the November report, it might be too late. Perhaps in May or June we can start to compile what we want to see introduced for the second year of the biennium.

Discussion ensued about scheduling date and time for the next full Commission meeting. The typical date/time of the second Friday of the month conflicts with a House session day in April. It was decided via consensus to hold the next full meeting of the Commission on the third Friday in April starting earlier in the morning than usual to accommodate several members with other standing commitments later that day.

Rep. Rung announced to the Commission that the clerk and Litchfield community representative Ms. Fordey is moving and will need to be replaced. Ms. Fordey confirmed that she is moving out of state and her last meeting with the full Commission will be the April meeting. Rep. Rung stated that Ms. Fordey's position on the Commission is appointed by the NH Senate President. She hoped that between herself, Senator Carson, and Senator Daniels, we can work on asking Senate President Morse about appointing a replacement to start with the May meeting.

Rep. Rung confirmed that there was no further business before the Commission.

Sen. Daniels motioned to adjourn the meeting. Ms. Harrington seconded the motion. Rep. Rung stated that, due to a new executive order by Governor Sununu, a roll call vote is no longer required to adjourn. The motion to adjourn passed by voice vote.

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Next Commission meeting: Friday April 16, 2021 at 830am – virtual link TBD by NHDES