Good afternoon Assemblyman Gottfried, Assemblyman Englebright and other members of the Assembly, Health and Environmental Conservation Committees.

My name is Mary Frances Wachunas and I am the Rensselaer County Director of Public Health. I have been employed with the County of Rensselaer for 23 years of which 20 years has been with the Rensselaer County Department of Health. I have held various positions such as Budget Analyst, Director of Children with Special Needs and Deputy Public Health Director. I became the Director of Public Health in 2008 and graduated from the School of Public Health in 2013, completing the state required education courses necessary to become permanent in my position.

My testimony today will explain the Local Health Department’s role, responsibility and response to the PFOA water contamination crisis in Rensselaer County’s Village of Hoosick Falls, Town of Hoosick and the Town of Petersburgh. Our goal throughout this water crisis has been to limit the exposure of this unregulated contaminant to the residents.

Rensselaer County’s Health Department is a full service department which means we operate an Environmental Health Division. We employ 47 employees and have 6 divisions including Administration, Medical Examiner, Nursing, Environmental, Preparedness and Children with Special Needs. In the Environmental Health Division we employ 11.5 FTE(s) including (1) Environmental Director, (6) Public Health Sanitarians, (2) Public Health Technicians, (1) Assistant Sanitary Code Enforcement Officer, (1) Public Health Environmental Educator and (1) Part time Engineer. All of the Environmental Staff are qualified under the NYS Sanitary Code requirements of education and experience. They have also been approved by the Rensselaer County’s Civil Service Commission. Rich Elder has been employed
with the Health Department for 15 years and has been the Department’s Environmental Director for eight years. He holds a BS in Plastic and Polymer Technology Engineering from Pennsylvania College of Technology. Mr. Elder also continues to operate the Department’s Water Program which he has overseen for over 15 years.

The Rensselaer County Health Department, like all other counties in New York, adheres to and implements all of the state and federal regulations and rules pertaining to public health. Specifically, the Environmental Health Division enforces the New York State and the Rensselaer County’s Sanitary Code pertaining to restaurants, school food services, day care food services, temporary and mobile food operations, agricultural fairgrounds, summer children’s camps, public swimming pools/bathing beaches, mobile home parks, residential lead hazard assessment, temporary residences, public health nuisances and NYS Clean Indoor Air Act (CIAA) compliance, public and individual water supplies, sewage disposal, local laws of tattoo and body piercing and engineering plan review of realty subdivisions.

The Local Health Department’s responsibility as it relates to the oversight of public water supplies is to assure adherence to the laws and regulations found in subpart 5-1 of the New York State Sanitary Code. A copy of which I have here.

The Rensselaer County Department of Health’s response to the PFOA water contamination in the Village of Hoosick Falls, Town of Hoosick, and the Town of Petersburgh adhered to the directives and guidelines set forth by the state and federal governments as we worked to assist in identifying and addressing the contaminant in the village’s public water supply. Our line of communication to the Village and Town Officials has been transparent and
continues in that manner today. Any information provided to us by the state has been disseminated by this department in an expedited manner.

The County’s response to the Hoosick Falls water crisis started in August of 2014 when we were advised by the Village of a potential water quality issue and their desire to sample. Given the information presented and the lack of regulation specific to the contaminant (PFOA) the County consulted with the NYSDOH as to how the village should proceed with sampling, and what requirements/recommendations as well as reporting requirements govern this sort of situation.

Once sampling was performed by the Village and results provided to the County (October of 2014) they were in turn shared with the NYSDOH. The results showed that all of the municipal wells were below the State’s regulatory threshold of 50,000 parts per trillion (ppt) however the main well did exceed the USEPA’s health advisory level of then 400 ppt. A request on October 20, 2014 was made from the County to the State to provide the Village officials with Public Health language that could be used in the Village’s release of information regarding the contamination to its residents. The Village at the recommendation of the County did take the well with the highest concentration of PFOA offline but due to operational issues that well had to be brought back online. The Village leadership was extremely proactive in attempting to address the contamination in the water supply as well as seeking information about the contaminate that could be shared with the public. We also would have liked to share information with the public. Hurdles during this timeframe included the lack of established regulations from the state and federal government on the contaminant and lack of readily available language that could be shared with the public about any potential health impacts of PFOA. Additionally, PFOA testing could only be performed by a limited number of labs throughout the country and therefore
simply performing PFOA testing was problematic with results taking up to 30 days.

The language requested of the State in October of 2014 regarding the potential health impacts from PFOA exposure was received by the County in January 2015 and it was immediately given to the Village for their use as a tool to provide information to the residents. The language from the State was very clear to indicate that the levels found in the Village’s water supply did not pose any “immediate health hazard”. This became the operative language up until the USEPA’s letter to the Village in November 2015 indicating that the consumption of water should immediately be stopped. However, from January 2015 until St. Gobain agreed to install a filtration system the Mayor and the Village leadership continued to seek financial and technical assistance on how to address this contaminant found in the municipal water supply. This included correspondence with Local, State, and Federal elected officials. The county continued to be the intermediary between the State and the Village until about September of 2015. At this time the NYSDOH assumed the lead role in the response minimizing the County’s role. This ultimately led to the State declaring Superfund status in the area in January of 2016. Once the “do not drink” recommendation was made by USEPA in November 2015 the County did maintain its regulatory role pertaining to the permitted local food service facilities in the Village. This included assuring that regulated food service operations were complying with the USEPA’s guidance to reduce the exposure potential and in some cases the review and approval of individual treatment systems for food service facilities that could not comply with the USEPA recommendations without filtration.

The County was diligent in its oversight so that the public swimming pool which falls under our jurisdiction was free from PFOA before allowing it to be
operational. We required that the entire pool be drained, washed, refilled with treated water and sampled to show no presence of PFOA. While this was not necessarily in line with the guidance being provided by NYSDOH we felt it was necessary to prevent/minimize potential exposure to the best of our abilities.

The County has been active throughout the State’s response to attempt to provide local insight and bring to the forefront concerns of exposure not only from PFOA but also from other potential contaminants that may be introduced as part of the treatment process (such as arsenic).

The County also provided significant manpower in the documentation and oversight of the flushing program of the municipal water supply once the temporary water treatment system was in place. This included a total of 6 staff persons over a period of ten days.

In summary when the Village sought assistance from the Rensselaer County Department of Health in identifying and quantifying PFOA we advised them of the regulatory standards and contacted the state to seek guidance on how to address the situation. We continued to assist the Village as they sought solutions on the removal of this contaminate as well as obtaining health risk information to be disseminated. To be clear, the County does not establish drinking water regulatory standards or create public health language as we are bound by the regulatory standards and health risk language as provided by NYSDOH. However, utilizing the County’s regulatory role we continued to oversee the facilities we regulate to limit potential exposure based on the USEPA guidance that included a changed from 400 ppt to 100 ppt in January of 2016.
The County's role in Petersburgh began when we were invited by the NYSDOH to attend a meeting in response to correspondence that was sent by Taconic to both NYSDEC and NYSDOH. On February 10, 2016 officials from the County, NYSDEC, and NYSDOH met with Taconic to discuss the history of PFOA contamination at their facility.

During the meeting Taconic expressed concern that their facility may have contaminated groundwater wells around their facility as their wells had previously tested positive for PFOA. Given the State's ongoing response in Hoosick Falls it was determined that the State could not immediately start testing in Petersburgh. Given the collective desire by the State, County, and Taconic to immediately start a testing program, the County offered to take the lead on the sampling program under the guidance and assistance of the State. Until our involvement in Petersburgh the County Health Department had never developed nor implemented a PFOA sampling program and given the lack of expertise, and regulatory standards, assistance and guidance from the NYSDOH and NYSDEC was crucial. A sampling plan was developed by the County and finalized on February 12, 2016 which included sending out letters offering sampling of wells for properties within a half mile of the Taconic facility (letters went out 2/16). The sampling plan also called for an estimated start date of February 18th. During this time the County worked to set up the protocols and establish a relationship with a lab that could perform the testing of samples collected by County staff. The first round of sampling was initiated by the County on February 17, 2016 and followed a modified version of EPA Method 537 testing protocol. Given the recent reduction in PFOA advisory levels and the belief that the advisory levels and potentially regulatory standards would change the County wanted to utilize
the modified testing protocols that test down to 0.67 ppt. The standard test Method 537 (used for PFOA testing) indicates that any level below 20 ppt is a non-detect. Our concern was that if the advisory levels or regulatory standard for PFOA dropped to 20 or below our testing would be insufficient and retesting would have to be performed. As was discussed at the initial meeting with the State, County, and Taconic the County would initially absorb the costs of the sampling program with the expectation that Taconic would reimburse for the costs of the laboratory testing. Taconic has reimbursed the County for all of the laboratory costs associated with the County’s testing in Petersburgh.

Additionally, given the concern that PFOA contamination may also exist in other municipal water supplies in the County a program was undertaken to sample those systems. Fortunately, all samples taken of those systems returned results below 20 ppt.

On February 19th we were notified by NYSDOH that samples they had collected of the Town of Petersburgh public water supply had a PFOA level of 98 ppt and the largest producing well had a level of 130 ppt. Based on an emergency meeting on the morning of Saturday the 20th of February between the County Health Department, County Executive, NYSDOH and the Town it was decided that a water consumption advisory was going to be issued urging residents to not consume the municipal water. While the Town was going to take the lead on making bottled water available to the residents they would not be able to initiate it until sometime during the next week. Based on this, the County Executive’s Office reached out to Hannaford Brothers Warehouse who was willing to donate 3 pallets of bottled water to the Town of Petersburgh to allow for immediate distribution. The County
Highway Department was utilized to pick up the water and deliver it to Petersburg. State officials held a meeting with Town and County officials that afternoon followed by a press conference by the state to raise awareness of the water advisory and the availability of drinking water.

Based on sampling outside the municipal water district indicating PFOA contamination in private wells, bottled water was offered to all residents in the Town while sampling was being performed to identify the area impacted by PFOA contamination. To this date bottled water remains available to residents.

Additionally, the County worked with Taconic to have a treatment system installed on the single permitted food service within the Town water district.

As the county continued to sample and private wells were found to have PFOA levels above the EPA’s advisory level Taconic agreed that any property with a PFOA result over the health advisory level (initially at 100 and later lowered to a long term exposure of 70ppt) would receive a GAC treatment system. We worked with Taconic and their contractor on developing the generic design that would be installed as necessary and the County oversaw these installations and performed clearance sampling. This part of the program was developed in coordination with both NYSDOH and NYSDEC based on their experiences in Hoosick Falls.

Under our sampling plan when results are received by the County we contact the property owner to discuss the results verbally and explain what next steps will be taken if any. Lab results are then mailed to the homeowner. The results are shared with the numerous agencies including NYSDEC,
NYSDOH, NYS AG&M, USEPA as well as the Town and Taconic through weekly updates. Press releases have been sent out on a regular basis so that the community is informed of the findings. Public version of maps are also made on a regular basis and provided to agencies and made available for public release through the Town.

The summary of the sampling program to date can be found in Attachment A.

Now that the State has staffing available for the Petersburgh’s sampling because of lower staffing requirements in Hoosick, the State has opened up sampling to the entire Town of Petersburgh as opposed to the County’s program which moved from the Taconic facility outwards in the direction of the contamination as found though the sampling results. The County worked with NYSDEC and NYSDOH and will continue to be the initial point of contact for the Petersburgh sampling program. The County continues to sample in the designated area near the Taconic Facility and will be coordinating the sampling with the State to ensure that the two programs do not overlap each other.

As you can see the County’s response to the Petersburg water contamination was slightly different based on a number of factors including the increased awareness of potential health impacts, the additional information available, as well as the fact that due to the State’s response in Hoosick they were unable to immediately address potential PFOA exposure in Petersburgh. Given the situation, the County has taken and maintained, even to date, a much more active role in the response due to the needs of the community. Specifically, the County took the lead on a sampling program to assess the
potential exposure of residents through drinking water (private wells) and working with Taconic was able to provide oversight on the installation and approval of POET systems. The County has and continues to work with NYSDOH, NYSDEC, the Town leadership, and Taconic on providing a coordinated response and information to the public through various press releases and attendance at public meetings. While the response continues to expand beyond just private water sampling the County remains involved through weekly update meetings and provides insight as to concerns and potential outcomes as we continue our effort to limit any potential exposure to PFOA.

In my opinion, the overall response to the Hoosick Falls water crisis was affected by the lack of regulations both at the State and Federal levels with regards to PFOA. The response to Petersburgh was different due to a more coordinated approach and relying on the information that had come forward as the situation in Hoosick Falls progressed.

My concern going forward is that we in government must have the appropriate level of response and guidance regarding the large number of unregulated contaminants to ensure that the impact of Public Health is minimized. Because the potential impact of unregulated contaminants is very broad, the research required to determine their impact should logically be done on a national level. This would eliminate the costly duplicative efforts of doing this on a state by state basis. Then appropriate communications must take place to ensure those who are responsible for water quality at the local level have the guidance they need to ensure people are only drinking safe, potable water.
Attached to this testimony, are detailed documents supporting this testimony.
Thank you

Attachment “A”

8/29/2016

Sampling Summary

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total samples Reported</td>
<td>473</td>
</tr>
<tr>
<td>Total Properties sampled</td>
<td>393</td>
</tr>
<tr>
<td>Total Water Sources</td>
<td>397</td>
</tr>
</tbody>
</table>

Results Summary (initial Samples only)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Non Detect</td>
<td>159</td>
</tr>
<tr>
<td>&lt;20 ppt</td>
<td>64</td>
</tr>
<tr>
<td>20 ppt to 69 ppt</td>
<td>35</td>
</tr>
<tr>
<td>70 ppt to 1,000 ppt</td>
<td>58</td>
</tr>
<tr>
<td>&gt;1,000 ppt (3,900 highest reported sample)</td>
<td>13</td>
</tr>
<tr>
<td>Total Results pending</td>
<td>56</td>
</tr>
</tbody>
</table>

Poet Summary

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>System Pending installation</td>
<td>10</td>
</tr>
<tr>
<td>Systems pending clearance</td>
<td>8</td>
</tr>
<tr>
<td>Systems Cleared for use</td>
<td>51</td>
</tr>
</tbody>
</table>
Attachment “A”

9/2/2016

Sampling Summary
- Total samples Reported: 494
- Total Properties sampled: 393
- Total Water Sources: 397

Results Summary (initial Samples only)
- Non Detect: 172
- <20 ppt: 68
- 20 ppt to 69 ppt: 35
- 70 ppt to 1,000 ppt: 58
- >1,000 ppt (3,900 highest reported sample): 13
- Total Results pending: 49

Poet Summary
- System Pending installation: 9
- Systems pending clearance: 10
- Systems Cleared for use: 52
Troy—Due to concerns regarding Perfluorooctanoic Acid (PFOA) contamination in water supplies Rensselaer County, in conjunction with the NYS Department of Health and NYS Department of Environmental Conservation, has initiated a groundwater study. As part of the study the County began sampling public and private water supplies initially within a half mile and then a mile of Taconic located in the Town of Petersburgh. Additionally, testing was to be performed at all municipal well fed water systems in the County including systems in the Town of Petersburgh, Town of Berlin, Hampton Manor water district in the Town of East Greenbush, Village of Schagticoke, Village of Nassau, Village of Castleton, and 2 water districts in the Town of Schodack.

The initial results of the first samples taken are below:

<table>
<thead>
<tr>
<th>Location</th>
<th>PFOA count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petersburgh Well 2</td>
<td>130 ppt</td>
</tr>
<tr>
<td>Petersburgh Well 6</td>
<td>42 ppt</td>
</tr>
<tr>
<td>Petersburgh Distribution</td>
<td>98 ppt</td>
</tr>
<tr>
<td>Private well (within half mile of Taconic)</td>
<td>53 ppt</td>
</tr>
<tr>
<td>Private well (within half mile of Taconic)</td>
<td>51 ppt</td>
</tr>
<tr>
<td>Berlin North well</td>
<td>12 ppt</td>
</tr>
<tr>
<td>Berlin South well</td>
<td>15 ppt</td>
</tr>
<tr>
<td>Berlin West well</td>
<td>12 ppt</td>
</tr>
<tr>
<td>Schagticoke (Village Distribution system)</td>
<td>Non Detect *</td>
</tr>
</tbody>
</table>

*Non Detect indicates less than .67 ppt. The lab testing was performed by Pace Analytical through Bender Labs. Pace Analytical is an Environment Protection Agency Certified Lab.*

The County in conjunction with the NYS Departments of Health and Environmental Conservation is continuing the water testing program and will release the results as they become available. Results have been provided to the homeowners and municipalities tested.
Bottled water for the Town of Petersburgh is available at Town Hall on Saturday mornings from 9 am to noon and Wednesday evenings from 6 pm to 8 pm. Water is also being provided through Topps in Hoosick Falls. For more information on bottled water in the Town of Petersburgh please contact the Town Supervisor Peter Schaaphok at 518-369-0910.

For more information on the groundwater study please contact the Rensselaer County Health Department at 518-270-2655.

-30-
PFOA Test Results

Troy-Due to concerns regarding Perfluorooctanoic Acid (PFOA) contamination in water supplies Rensselaer County, in conjunction with the NYS Department of Health and NYS Department of Environmental Conservation, has initiated a groundwater study. As part of the study the County began sampling public and private water supplies initially within a half mile and then a mile of Taconic located in the Town of Petersburgh. Additionally all municipal ground fed water supplies and the Troy water systems were tested. Troy water was tested by the City twice in 2013 and twice in 2014 and the results were Non Detect. (Non Detect for the Troy test meant under 20ppt). The County is currently awaiting results for Troy and 2 water districts in Schodack.

The results of the recent municipal system samples taken are below:

<table>
<thead>
<tr>
<th>Location</th>
<th>PFOA count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hampton Manor (East Greenbush)</td>
<td>3.8 ppt</td>
</tr>
<tr>
<td>Village of Nassau</td>
<td>6.3 ppt</td>
</tr>
<tr>
<td>Village of Castleton</td>
<td>Non Detect*</td>
</tr>
</tbody>
</table>

*Non Detect indicates less than .67 ppt. The lab testing was performed by Pace Analytical through Bender Labs. Pace Analytical is an Environment Protection Agency Certified Lab.

A breakdown of the results of 50 samples taken at private homes mainly within a half mile of Taconic located in the Town of Petersburgh are as follows:

- 13 samples below 20 ppt
- 6 samples between 21 ppt and EPA Guidance level of 100ppt
- 14 samples between 101ppt and 1000 ppt
- 6 samples between 1001 and 2100 ppt (the highest result found was 2100 ppt)
- 11 samples were non detect (less than .67 ppt)

The County in conjunction with the NYS Departments of Health and Environmental
Conservation is continuing the water testing program and will release the results as they become available. Results have been provided to the homeowners and municipalities tested. Under an agreement with Taconic private water sources with a PFOA result of over 100 can have a filter system installed on their home by Taconic.

For more information on the groundwater study please contact the Rensselaer County Health Department at 518-270-2655.

-30-
PFOA Test Results

Troy-Due to concerns regarding Perfluorooctanoic Acid (PFOA) contamination in water supplies, Rensselaer County, in conjunction with the NYS Department of Health and NYS Department of Environmental Conservation, has initiated a groundwater study. As part of the study the County began sampling public and private water supplies surrounding Taconic located in the Town of Petersburgh.

Results on an additional 20 well samples on private wells in the Town of Petersburgh sampled between May 16th and June 13th returned results of:

- 2 samples below 20 ppt
- 1 sample between 21 ppt and EPA Guidance level of 70ppt
- 4 samples between 71ppt and 1000 ppt
- 0 samples over 1001
- 13 samples were non detect (less than .67 ppt)

*Non Detect indicates less than .67 ppt. The lab testing was performed by Pace Analytical through Bender Labs. Pace Analytical is an Environmental Protection Agency Certified Lab.*

A breakdown of the results of 278 samples taken at private homes located in the Town of Petersburgh are as follows:

- 50 samples below 20 ppt
- 29 samples between 21 ppt and EPA Guidance level of 70ppt
- 52 samples between 71ppt and 1000 ppt
- 15 samples over 1001

-MORE-
• 132 samples were Non Detect (less than .67 ppt)

Please note that the 278 water samples were taken at 232 homes as some homes already had water treatment systems installed. Therefore a test was taken before the treatment system and post treatment system in order to assess the impact of the current treatment system. Results on 48 samples are still pending with the lab. Additionally, the retesting for PFOS in 4 wells previously found to have the contaminant has been completed with all results returned. All tests came back with non-detectable levels of PFOS.

The County in conjunction with the NYS Departments of Health and Environmental Conservation is continuing the water testing program and will release the results as they become available. Results have been provided to the homeowners. Under an agreement between the NYS Department of Environmental Conservation and Taconic private water sources with a PFOA result of over 70 ppt can have a filter system installed on their home by Taconic. The County is also performing clearance testing on the homes that have had filter systems installed. To date 31 systems have been given final approval to return to normal water use. An additional 34 systems are being installed or awaiting final approval.

For more information on the groundwater study please contact the Rensselaer County Health Department at 518-270-2655.

-30-
RENSSELAER COUNTY DEPARTMENT of HEALTH

To: Chris Meyer, Deputy County Executive

FROM: Richard Elder, Environmental Health Director

DATE: February 3, 2016

SUBJECT: Hoosick Falls PFOA update

BACKGROUND
Perfluorooctanoic Acid (PFOA) is a fully fluorinated compound made of a long carbon chain that is both lipid and water repellent. Because of these unique characteristics, it is widely used as a surface active agent including applications involving high temperatures and/or where contact with strong acids or bases will be used. This is not a naturally forming compound and therefore is manmade. PFOA does not hydrolyze, photolyze, or biodegrade in the environment and therefore is extremely persistent. Primary exposure pathways are inhalation and ingestion. Studies have shown it is readily absorbed after oral exposure and tends to accumulate in the serum, kidney, and liver.

PFOA is listed on the EPA’s Unregulated Contaminant Monitoring Regulation (UCMR) list. The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations. These contaminants are known or anticipated to occur at public water systems, and may warrant regulation under the Safe Drinking Water Act. Certain water supplies are required to sample for contaminants on this list (namely systems serving at least 100,000 persons and a few select others). Hoosick Falls is not on this list and had no requirement to sample for PFOA.

RESPONSE
PFOA was discovered in the Hoosick Falls water supply by a resident in August of 2014. RCDOH was immediately contacted by the Village looking for direction. Based on input from NYSDOH, any sampling conducted by the Village would be voluntary. (See Attachment A) In October of 2014, RCDOH received results back from sampling that was performed by the Village which confirmed the presence of PFOA in the Village water supply. At this time RCDOH requested assistance from NYSDOH with respect to determine exposure concerns and notification requirements/recommendations. In the short term, the Village went ahead and took the well with the highest level of PFOA offline. Initial guidance from NYSDOH was simply to report the presence of PFOA in the Annual Water Quality Report that is sent out in the spring. After discussion with the Village this was unreasonable and a request was made (October 20th) to NYSDOH BTSA (Bureau of Toxic Substance Assessment) to develop health effects language that the Village could provide to the residents. (See Attachment B)
On January 9th, RCDOH received the draft of the NYSDOH Mandatory Health Effects Language (MHEL) and Risk Characterization for PFOA prepared by the Bureau of Toxic Substance Assessment (BTSA) for the (V) Hoosick Falls public notification (PN) document. This was finalized and sent to the Village on January 12, 2015. The opening paragraph of this report is “The presence of perfluorooctanoic acid (PFOA) at the levels detected in the supply wells and in finished water does not constitute an immediate health hazard. Based on specific toxicity information for PFOA, the estimated exposure to PFOA in the water at the highest level detected (0.54 mcg/L) is at least 50,000 times lower than PFOA exposures that are known to cause health effects in animals. The detection of PFOA indicates a need to identify the sources of contamination and to take measures to reduce it so that long-term exposure can be reduced and future exposures prevented.” (See Attachment C)

Based on this information, the County DOH and State DOH attended several meetings (both public and private) to discuss options moving forward including additional sampling and possible mitigation methods. RCDOH and NYSDOH assisted the Village in numerous outreach events and development of public information releases including new sample results as the Village continued to sample both wells and distribution system. In April, the State started working with the Village and their consultant to develop a sampling plan that included wells outside the village boundaries to determine the extent of the contamination. At the same time, the Village, County, and State started researching alternative treatment that could be installed on the Village system to remove PFOA. In May, the Village had a pilot study done to determine the effectiveness of Granulated Activated Carbon (GAC) in the removal of PFOA from the Village water system. In June, the NYSDOH undertook a sampling program that included the collection of water from private wells.

In September 2015, a letter was sent to the Village from NYSDOH indicating the results of their sampling program and that with the exception of well #3 all samples were above the EPA’s guidance level of 400 parts per trillion (PPT). The letter further states that, “At the PFOA concentrations measured in the public water supply, we do not expect health effects because the estimated exposures from drinking water are lower than the estimated exposures associated with effects in humans.” The letter does go on to state that residents may consider the use of bottled water to reduce potential exposure until a long term solution can be implemented. At this time, given the multiple different directions things were going and at the rapid speeds at which information was being handled, it was decided between the NYSDOH and RCDOH that BTSA would handle all calls dealing with questions about exposure. The Bureau of Water Supply Protection was going to continue handling the well sampling program, while the County would continue working with the Village and homeowners on treatment systems.

In October, the EPA region 2 became involved in the situation and there were significant differences in the level of concern about exposure between the NYSDOH and EPA. On November 30, 2015, RCDOH received correspondence from EPA to the Village indicating that it was the EPA’s recommendation that the Village water “not be used for drinking or cooking”. Based on this new information and the increased concern, the Village asked that RCDOH meet with several of the food services in the Village to discuss potential treatment options that could be immediately implemented until a large scale treatment system could be installed on the Village supply. This meeting was held on December 11, 2015 and since then RCDOH has approved 11 individual treatment systems and they are being actively installed.

In December, RCDOH started receiving design documents for both the temporary treatment system as well as for the permanent one. Both of these reviews will be joint reviews with the NYSDOH with the ultimate sign off coming from NYSDOH. On January 7, 2016 a letter of endorsement of the temporary treatment system was sent to the Village and final comments were sent to the engineer on January 26, 2016. Currently, RCDOH is in receipt of the design drawings for the permanent treatment facility and are in the process of reviewing them.
On January 14, 2016 the EPA along with the NYSDOH had a public information session discussing the PFOA problem and future response. At that meeting JP O'Hare from the NYSDOH was quoted as stating “To reduce exposure from drinking water found to contain PFOA, people should use bottled water for drinking and food preparation.” Subsequently, as a response to this quote, RCDOH drafted a letter to NYSDOH requesting formal guidance with respect to food service operations. This guidance was provided on January 28, 2016. As a result of this guidance staff visited all of the food service establishments in the Village to ensure that bottled water was being used and to review their operations and provide recommendations for reduced exposure.

On January 28, 2016, the EPA lowered the health advisory level (for short term exposure) from 400 ppt to 100 ppt but has yet to develop an advisory level for long term exposure. Currently the temporary treatment plant is being built with an expected start up in the next two weeks. RCDOH is currently also working with the Village, NYSDOH, and NYSDEC in developing a sampling plan to certify the new treatment system and flush and test the Village distribution system, including the storage tanks. RCDOH continues to have weekly meetings with NYSDOH and recently, RCDOH has been invited to attend a weekly technical call between the EPA, NYSDOH, and NYSDEC.
Tim /Rich – Responses to your questions are provided below in red text.

If you have additional questions, feel free to contact me.

Kim

From: Vickerson, Timothy E (HEALTH)
Sent: Wednesday, August 13, 2014 2:58 PM
To: EvansMcGee, Kimberly (HEALTH)
Cc: Hunt, Tina M (HEALTH); reider@rensco.com
Subject: FW: UCMR 3 - (V) Hoosick Falls

Kim,

Thanks for following up. Please see additional question from Rich

......thanks

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407

From: Elder, Rich [mailto:RElder@rensco.com]
Sent: Wednesday, August 13, 2014 12:47 PM
To: Vickerson, Timothy E (HEALTH)
Subject: RE: UCMR 3 - (V) Hoosick Falls

Tim;

Thank you for the follow up. So if they “Voluntarily” do the sampling:

1. Are they required to report the results? (I believe they are) Yes, all detected contaminants need to be reported in the AWQR.

2. Are they required to perform any remedial actions? If so at what levels (0.02 ppb?) No. As unregulated contaminants – they are not required to conduct any remedial activity if detected. The same is true for public water systems who are required to monitor for unregulated contaminants --- they are not required to do anything further other than report any detections in their AWQR.

I want to make sure the Village is aware of all of their options should they choose to sample.

Rich
(V) of Hoosick Falls NY4100041 was not one of the “randomly” selected (by EPA) ‘small’ PWSs to participate in UCMR3, and since its population is at 4400, it did not meet the population criteria for the mandatory monitoring requirement for “large PWSs” (>10K). So, in short, they are not required to test for UCMR3 contaminants.

Hi Kim,

Do you know if Hoosick Falls water system (Rensselaer County) was selected for the monitoring for UCMR 3 contaminants?

A resident has hired a Lawyer and is pushing the water supply to test for PFAO which is on the list. Dupont Chemical company has or had a small plant nearby

Thanks

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407
Thank you Tim;

Please let me know once your toxics people have come up with anything or they would like to meet to discuss further.

As an update in talking with the Village mayor they have shared the sampling information with the concerned resident (who has hired a consultant and lawyer) The consultant has provided the Village with additional information (I received it yesterday) from the EPA that I am sure will be offered to the public at some point. The village has already taken off line the highest of the three wells as a precaution until an action plan can be developed. The Village has also asked about the possibility of installing activated carbon filters and I explained that it would be something that we would need to be involved in as it would be a modification to the existing treatment process.

As I expressed earlier I expect this to continue to move rapidly, and so I am trying to keep you in the loop as soon as I get any information as it will only be a matter of time before we will be asked for input (both from a health risk and water treatment aspect). I have attached the additional information (from EPA) that has been provided by the consultant for your (and BSTA’s) review.

Rich

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From: Vickerson, Timothy E (HEALTH) [mailto:timothy.vickerson@health.ny.gov]
Sent: Wednesday, October 22, 2014 10:01 AM
To: Elder, Rich
Cc: EvansMcGee, Kimberly (HEALTH); 'themayorhf@gmail.com'; Swider, Robert A (HEALTH)

Subject: RE: Fwd: Report for Perfluorosurfactants samples

Rich,

The NYSDOH does not have any health effects language on PFOA. We may get something from our toxics Bureau in the next few weeks at the earliest. I’m not sure about an “upper” limit that you mention. All I can find is the minimum reporting level of 20ng/L or 0.02 ppb.

It is rather lengthy and clearly says “draft – do not cite or quote” but it is online for anyone to see.

If the public meeting occurs before we get wording about health effects, and the question comes up, then the appropriate response is that the USEPA has not officially published any health effects yet.

It might help to give a quick summary of the purpose of the UCMR.

The following comes from EPA’s website:
Why was the UCMR program developed?
The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review of contaminant occurrence, to guide the CCL selection process and to support the Administrator’s determination of whether to regulate a contaminant in the interest of protecting public health.

How did EPA select these contaminants?
EPA reviewed contaminants that had been targeted through existing prioritization processes, including previous UCMR contaminants and the Contaminant Candidate List (CCL). Additional contaminants were identified based on current research on occurrence and health effect risk factors. Pesticides that were not registered for use in the United States, contaminants that did not have an analytical reference standard and contaminants whose analytical methods were not ready for use were removed from the list. EPA further prioritized the remaining contaminants based on more extensive health effects evaluations by the Office of Water’s Office of Science and Technology. These procedures for evaluating health effects were developed to support the ranking of contaminants for future CCLs.

What are the environmental and public health benefits?
UCMR benefits the environment and public health by providing EPA and other interested parties with scientifically valid data on the occurrence of these contaminants in drinking water, permitting assessment of the population being exposed and the levels of exposure. This data set is one of the primary sources of occurrence and exposure information the Agency uses to develop regulatory decisions for emerging contaminants.

Let me know if you have questions

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407

From: Elder, Rich [mailto:RElder@rensco.com]
Sent: Wednesday, October 22, 2014 8:37 AM
To: Vickerson, Timothy E (HEALTH)
Cc: EvansMcGee, Kimberly (HEALTH); 'themayorhf@gmail.com'
Subject: RE: Fwd: Report for Perfluorosurfactants samples

The village is aware that there is no requirement to take action(s) and I do not believe given the local pressure being put on the officials that they will wait until next year’s AWQR to release this data. Does NYSDOH or EPA have any public health language in relation to PFOA (especially as they have set an upper limit for it in the UCMR). I believe this will be coming up at a public meeting in the very near future and the Village wants to be ahead of it.

Rich

From: Vickerson, Timothy E (HEALTH) [mailto:timothy.vickerson@health.ny.gov]
Sent: Monday, October 20, 2014 2:56 PM
To: Elder, Rich
Subject: FW: Fwd: Report for Perfluorosurfactants samples

Rich,
See below. There are no regulatory requirements for reporting since the testing was done voluntarily. I feel Reporting via the AWQR is all that is needed even that goes above and beyond any “required” reporting.

Let me know if you have questions

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407

From: EvansMcGee, Kimberly (HEALTH)
Sent: Monday, October 20, 2014 2:15 PM
To: Vickerson, Timothy E (HEALTH)
Cc: Swider, Robert A (HEALTH); Hunt, Tina M (HEALTH); Sokol, Roger (HEALTH)
Subject: RE: Fwd: Report for Perfluorosurfactants samples

Tim -

The following paragraphs are excerpts from the AWQR Guidance document for water supplies relative to UCMR. Since this was not State nor federally required testing – rather, it was voluntary testing – it might not “technically” meet the criteria stated in the guidance document (see highlighted text below). That being said, given the circumstances as to why it was done in the first place, it would be prudent if the PWS reported their findings. Your call.

Since these are unregulated contaminants, we have little information on them, including health effects information. I am compiling information that I have gathered from various sources to prepare a general health effects statement that would be need to fill in all the appropriate information required in the Table of detected contaminants, should the data be included in the AWQR. Once we have an OK from BTSA on the language, I will forward it to you.

Kim

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Unregulated Contaminants

If your system performed monitoring for the EPA Unregulated Contaminant Monitoring Regulation (UCMR) within the last five years, you must report the monitoring results of any detected contaminants in the Table of Detected Contaminants. Your report must identify a person and a phone number to contact for information on the monitoring results. If your system performed monitoring under UCMR but did not detect any contaminants, you may delete this section from your report.

Example:

In 2009, we were required to collect and analyze drinking water samples for the following unregulated contaminant: (list contaminant names, number of samples, and date collected). You may obtain the monitoring results by calling (provide contact name) at (provide telephone number).

Item 4: Detected Contaminants
An essential part of the report is the table that shows the highest level of each detected contaminant (this is usually the value you report to the State to determine compliance) and the range of levels of that contaminant you found during the year, if compliance is based on an average of several samples. It is also suggested that you include the number of samples collected or analyses performed for each detected contaminant.

A detected contaminant is any contaminant detected by a New York State approved laboratory. Your report must include detected monitoring results for any samples used to determine compliance, any detected contaminant results collected and analyzed by the State, and/or detected monitoring results of additional samples required by the State or EPA (i.e., surveillance monitoring, Information Collection Rule monitoring, etc.).

**************************************************************

From: Vickerson, Timothy E (HEALTH)
Sent: Friday, October 17, 2014 11:03 AM
To: Sokol, Roger (HEALTH); EvansMcGee, Kimberly (HEALTH)
Cc: Swider, Robert A (HEALTH); EvansMcGee, Kimberly (HEALTH); Hunt, Tina M (HEALTH)
Subject: RE: Fwd: Report for Perfluorosurfactants samples

Great. Thanks Roger

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407

From: Sokol, Roger (HEALTH)
Sent: Friday, October 17, 2014 11:03 AM
To: Vickerson, Timothy E (HEALTH); EvansMcGee, Kimberly (HEALTH)
Cc: Swider, Robert A (HEALTH); EvansMcGee, Kimberly (HEALTH); Hunt, Tina M (HEALTH)
Subject: RE: Fwd: Report for Perfluorosurfactants samples

Tim....Kim can confirm, but yes reporting in the AWQR is what would be required for systems participating in the UCMR3....EPA has developed health advisory language for a number of the compounds being tested for ......Kim should be able to help out and provide if necessary

From: Vickerson, Timothy E (HEALTH)
Sent: Friday, October 17, 2014 10:47 AM
To: Sokol, Roger (HEALTH); Boepple-Swider, Teresa (HEALTH)
Cc: Swider, Robert A (HEALTH)
Subject: FW: Fwd: Report for Perfluorosurfactants samples

Fyi

I just spoke with Rich Elder. A resident of the Village pushed the Village to have this testing done. The Mayor has obvious concerns now about reporting. We will need help from Kim Evans and maybe BTSA....

Hoosick Falls was not one the candidates for UCMR3 so I am not familiar with reporting requirements but I think they only need to get it in the next AWQR.
Rich,

What was the purpose of testing for these? UCMR3?

There is no MCL for Perfluorooctanoic Acid that I can find (State or Fed). We will need some help from BTSA on this.

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYSDOH
518-408-5407

From: Vickerson, Timothy E (HEALTH)
Sent: Friday, October 17, 2014 8:40 AM
To: ‘Elder, Rich'; EvansMcGee, Kimberly (HEALTH)
Cc: Swider, Robert A (HEALTH)
Subject: RE: Fwd: Report for Perfluorosurfactant samples

Let's Discuss these results....I think that the Village may want down the road some assistance in providing any public health concerns related to these results. Does we, EPA or other states have any?

From talking with the Mayor this may become a very public issue once they release these and since they are above the only guidance we have (even though it is not regulated) it may get messy.

I am in (or at least around the office) today.

Rich

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Hi Rich —

Please find attached the Mandatory Health Effects Language (MHEL) and Risk Characterization for PFOA prepared by the Bureau of Toxic Substance Assessment (BTSA) for the (V) Hoosick Falls public notification (PN) document. We have not yet shared this with the Village/Mayor. I am forwarding it to you so that you will have the opportunity to review it and include it in the formal PN document, should you be assisting them with composing it. Feel free forward it to the Mayor when you are prepared to do so.

If you have any questions regarding the public notification / MHEL, feel free to contact me. My understanding is that Tim Vickerson is coordinating efforts relating to source identification and possible treatment options. However, he is on vacation and won’t be back until next week.

Kim Evans
NYS Department of Health
Center for Environmental Health
Bureau of Water Supply Protection
Empire State Plaza - Corning Tower Room 1168
Albany, NY 12237
p: 518-402-7711
f: 518-402-7599
email: kimberly.evansmcgee@health.ny.gov

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Risk Characterization and Health Effects Language for PFOA

The presence of perfluorooctanoic acid (PFOA) at the levels detected in the supply wells and in finished water does not constitute an immediate health hazard. Based on specific toxicity information for PFOA, the estimated exposure to PFOA in the water at the highest level detected (0.54 mcg/L) is at least 50,000 times lower than PFOA exposures that are known to cause health effects in animals. The detection of PFOA indicates a need to identify the sources of contamination and to take measures to reduce it so that long-term exposure can be reduced and future exposures prevented.

Samples taken from the water supply wells on October 2 and November 4, 2014 were found to contain PFOA at levels ranging from 0.17 micrograms per liter (mcg/L) to 0.54 mcg/L. One sample of finished (treated) water taken on November 4th contained PFOA at 0.44 mcg/L. These levels are below the New York State unspecified organic contaminant public drinking water standard of 50 mcg/L, which applies to certain types of organic chemicals such as PFOA, which do not have a standard based on their toxicity.

Information on the health effects of PFOA in humans is limited. There is evidence from studies in people that elevated levels of PFOA in serum can lead to reduced fetal growth. There is also some evidence from studies in humans that increased serum PFOA levels may increase the risk for testicular and kidney cancer, but collectively the studies are not strong enough to draw a definitive conclusion about whether PFOA causes cancer in humans. In laboratory animals, exposure to high levels of PFOA caused weight loss, increased liver weights, developmental delays, reduced red blood cells, and reduced fetal growth. PFOA caused cancer in laboratory animals that were fed large amounts for their lifetimes. Chemicals that cause adverse health effects in animals after high levels of exposure may pose a risk to humans exposed to lower levels over long periods of time.

PFOA is a manufactured chemical that is used to make other chemicals called fluoropolymers. Fluoropolymers are substances that have special properties such as fire resistance and the ability to repel oil, grease and water. Thus, they have many manufacturing and industrial applications. PFOA is used to make non-stick surfaces on cookware and in fire-fighting foams, cosmetics, greases, lubricants, paints, polishes, and adhesives. PFOA can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants, and landfills.

TJ/BTSA 1/9/2015
Elder, Rich

From: Vickerson, Timothy E (HEALTH) [timothy.vickerson@health.ny.gov]
Sent: Monday, December 29, 2014 8:30 AM
To: Elder, Rich
Subject: FW: PFOA in Hoosick Falls water
Attachments: NY4100041.pdf

Rich,

Let’s discuss soon..................

Timothy E. Vickerson, PE
Public Health Engineer 2
Capital Area EH - NYS DOH
518-408-5407

From: Sokol, Roger (HEALTH)
Sent: Friday, December 26, 2014 4:42 PM
To: Vickerson, Timothy E (HEALTH)
Cc: Boepple-Swider, Teresa (HEALTH); Gilday, William (HEALTH); EvansMcGee, Kimberly (HEALTH); Hunt, Tina M (HEALTH); Swider, Robert A (HEALTH)
Subject: FW: PFOA in Hoosick Falls water

Jane...thanks
Tim...see below and attached....this should match or at least corroborate what you have found out so far .....do you know if Renssealer Co has reached out to the DEC region 4 to see if there were any “spills” reported......Jane also verbally mentioned something to me that we should think about ....does anyone know if the membrane filters are coated with anything and if they potentially could be the source of the PFOA?...Bill maybe reach out to Mike M. about that......we should also get confirmation if they have sampled both “raw” and “finished” water to potentially answer that question.

rcs

From: Thapa, Jane (HEALTH)
Sent: Friday, December 26, 2014 4:01 PM
To: Sokol, Roger (HEALTH)
Cc: Boepple-Swider, Teresa (HEALTH); Gilday, William (HEALTH)
Subject: RE: PFOA in Hoosick Falls water

Hi Roger,

Attached is the Source Water Assessment of the village of Hoosick Falls. The well that they have shut down, well 7 was not included in the SWAP assessment as it was opened in 2002, after SWAP.

There are numerous potential sources of contamination near the wells, see the last 2 pages of the report. I looked in the EPA database about the regulated chemicals at nearby facilities and none seemed to include PFOA.

The wells were later found to be GWUDI. So I looked upstream and found that Taconic, in Petersburgh, upstream, coats fabrics. It could possibly be a source of PFOA although I didn’t see that in the list of chemicals.
I was wondering whether DEC Region 4 has been involved and whether there have been any recent spills to the Hoosick River or its tributaries that might have made their way into the wells.

Jane C. Thapa, P.E.
Public Health Engineer 2
Bureau of Water Supply Protection
New York State Department of Health

Corning Tower, Room 1119
Empire State Plaza
Albany, NY 12237

(518) 402-7751 (desk)
jane.thapa@health.ny.gov

From: Sokol, Roger (HEALTH)
Sent: Tuesday, December 23, 2014 10:18 AM
To: Thapa, Jane (HEALTH)
Cc: Boepple-Swider, Teresa (HEALTH); Gilday, William (HEALTH)
Subject: FW: PFOA in Hoosick Falls water

Jane......do we have a SWAP report for the Hoosick Falls WD available?.....If so could you please pull and see if there might be any indication of a potential source for PFOA contamination to the source of water for this groundwater system.

Thanks
rcs

From: Sokol, Roger (HEALTH)
Sent: Friday, December 19, 2014 2:38 PM
To: Anderson, Arlene
Cc: Boepple-Swider, Teresa (HEALTH)
Subject: FW: PFOA in Hoosick Falls water

Arlene

Some additional information. With regard to your specific questions:

- What this part of the UMCR EPA-HQ sampling?
  No, Hoosick Falls was not conducting this sampling under the UCMR3....our understanding is that there was a concerned resident who “requested” the water system test for PFOA

- Is there an activated carbon system installed yet?
To the best of my knowledge at this point in time, no there is no activated carbon system installed. Plans and specification for adding this treatment have not been provided to the Rensselaer County DOH.

- Any follow-up being done by your department or the local agency?
The Rensselaer County DOH has been working with this system. The well with the highest concentration of PFOA has reportedly been taken off line. A summary of the result to date are below and we understand that additional samples will be taken.
While not a regulated contaminant we note that a Reference Concentration of 400 ng/l has been established by EPA for PFOA. The majority of sample results are below that reference concentration.

<table>
<thead>
<tr>
<th>Village of Hoosick Falls NY4100041</th>
</tr>
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<tbody>
<tr>
<td>Perfluorooctanoic acid (PFOA) results (ng/L)</td>
</tr>
<tr>
<td>Eurofins/Eaton Labs</td>
</tr>
<tr>
<td>sample Id</td>
</tr>
<tr>
<td>well # 3</td>
</tr>
<tr>
<td>well # 6</td>
</tr>
<tr>
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<tr>
<td>Finished water</td>
</tr>
<tr>
<td>EPA Method 537</td>
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<tr>
<td>MRL = 20 ng/L</td>
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</tbody>
</table>

From: Sokol, Roger (HEALTH)
Sent: Friday, December 19, 2014 2:00 PM
To: 'Anderson, Arlene'; Boepple-Swider, Teresa (HEALTH)
Subject: RE: PFOA in Hoosick Falls water

Arlene

We are aware of the PFOA issue in Hoosick Falls and no this was not a part of the UCMR3 sampling....still trying to determine exactly but it appears the water system conducted this sampling on their own.....we just got some data from them and are compiling now....will provide to you ......the Rensselaer Co. DOH has been the lead on this to date and we are working with them....will pull together the details as we know it to date and forward on to you

Roger

From: Anderson, Arlene [mailto:Anderson.Arlene@epa.gov]
Sent: Friday, December 19, 2014 12:51 PM
To: Boepple-Swider, Teresa (HEALTH); Sokol, Roger (HEALTH)
Subject: PFOA in Hoosick Falls water

Teresa and Roger,