FREQUENTLY ASKED QUESTIONS ABOUT PFOA & PFOS:

Dear Town of New Windsor Residents,

As has been widely reported, the Town of New Windsor was recently notified by the NYS Department of Health that low levels of PFOA and PFOS were detected in the water that has been drawn and distributed to residents from the Butterhill Wells. We have made and will continue to make efforts to provide our residents with as much information as possible regarding this issue.

Within days of the initial announcement, we shared the letter and test results received from the NYS Department of Health (DOH), as well as test results the Town received before the wells were put online.

Since then we have fielded numerous telephone calls and met with anyone that personally came to Town Hall in order to answer everyone's questions. The Town understands and shares your concerns. To that end, we will continue to answer all questions posed and, in an effort to make it easier, we have taken time below to answer some of the most frequently asked questions.

This information is not meant to be all encompassing and should not discourage further questions. If the answer(s) to your question(s) is not here, please do not hesitate to call Town Hall at 845-563-4630 or to stop in to speak with our Town Attorney, David Zagon. We have designated his office to field all questions in an effort to streamline the process and provide timely and consistent responses. Thank you for your anticipated patience and understanding.

George A. Green
Town Supervisor
Town of New Windsor

WHAT IS PFOA & PFOS?

Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic (PFOS) acid are part of a group of chemicals commonly referred to as perfluoroalkyl substances (PFASs) or perfluorinated compounds (PFCs). PFOA and PFOS are man-made chemicals that up until 2000 had been widely used in the manufacturing of many industrial and consumer products such as paper and cardboard food packaging, insecticides, electronics, stain repellants, paints, plumbing tape, firefighting foam and non-stick cooking surfaces.[1]

Between 2000 and 2002, PFOS was voluntarily phased out of production in the U.S. by its primary manufacturer. In 2006, eight major companies voluntarily agreed to phase out their global production of PFOA and PFOA-related chemicals.[1]

Prior to phasing PFOA and PFOS out of production, large quantities were released into the environment during the manufacturing processes and have been found to have contaminated the drinking water supplies near current or former manufacturing locations.[1]

In our region, contamination is believed to have been caused by the use of firefighting foams by the Air National Guard ("ANG")/Department of Defense ("DOD") in the area of Stewart International Airport. DEC has listed the base as a State Superfund site and will use its full legal authority to ensure an expedited site clean-up. The State continues to investigate other areas at and around the ANG Base to determine if any other significant sources of PFOA and PFOS contamination exist.[2]

---

[1] http://www.nsf.org/consumer-resources/water-quality/drinking-water/perfluorooctanoic-acid-and-perfluorooctanesulfonic-acid-in-drinking-water

[2] https://www.health.ny.gov/environmental/investigations/newburgh/faq.htm

WHAT ARE THE POTENTIAL HEALTH EFFECTS FROM EXPOSURE TO PFOA & PFOS?

According to the United State Environmental Protection Agency (EPA), which is said to utilize "best available" peer review studies, exposure to unsafe levels of PFOA/PFOS concentrations through drinking water may result in health effects, including developmental effects to fetuses during pregnancy, cancer, liver effects, immune effects and thyroid effects.[3]

The EPA has issued a health advisory which sets forth a lifetime exposure limit of 70 parts per trillion (ppt) for both PFOA and PFOS in drinking water. This EPA health advisory level was established to provide a margin of protection to all Americans as well as those who are immuno-compromised or in special populations (elderly, children).[2]

Recently, the New York State Drinking Water Quality Council recommended a maximum contaminant level for PFOA and PFOS of 10 ppt.[4]

The peer review studies used by the EPA in setting the above lifetime exposure limit examined the effects of PFOA and PFOS on laboratory animals (rats and mice) and were also informed by epidemiological studies of human populations that have been exposed to perfluoroalkyl substances (PFASs). These studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes). There is limited information identifying health effects from inhalation or dermal exposures to PFOA or PFOS in humans and animals. To learn more about the underlying studies for the health advisories, see EPA's Health Effects Support Documents for PFOA and PFOS.[5]

ARE THESE CHEMICALS (PFOA AND PFOS) ABSORBED THROUGH THE SKIN?

The New York State Department of Health has issued the following fact sheet regarding PFOA exposure (authored by the Agency for Toxic Substances and Disease Registry)

https://www.health.ny.gov/environmental/investigations/drinkingwaterresponse/docs/atsdr_pfas_factsheet.pdf

and information regarding PFOS exposure (as it pertained to the situation in the City of Newburgh)
https://www.health.ny.gov/environmental/investigations/newburgh/faq.htm

The above fact sheet regarding exposure to PFOA says, "People who work with PFAS are more likely to be exposed than the general population. Workers may be exposed to PFAS by inhaling them, getting them on their skin, and swallowing them, but inhaling them is the most likely route for exposure. PFAS are found in people and animals all over the world. They are found in some food products and in the environment (air, water, soil, etc.). Completely stopping exposure to PFAS is unlikely. But, if you live near sources of PFAS contamination you can take steps to reduce your risk of exposure to PFAS ….[i]f your water contains PFAS, you can reduce exposure by using an alternative or treated water source for drinking, food preparation, cooking, brushing teeth, and any activity that might result in ingestion of water….It is safe to shower and bathe in PFAS-contaminated water. Neither

---

[3] https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf

[4] https://www.health.ny.gov/press/releases/2018/2018-12-18_drinking_water_quality_council_recommendations.htm

[5] https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos

routine showering or bathing are a significant source of exposure. Studies have shown very limited absorption of PFAS through the skin."

The above information concerning PFOS exposure says, "PFOS is not significantly absorbed through the skin. PFOS does not evaporate out of the water into air, so breathing in PFOS during bathing or showering is not likely to be a significant source of exposure."

CAN YOU DRINK THE WATER, OR COOK, SHOWER, TAKE A BATH, DO LAUNDRY, AND/OR WASH DISHES WITH THE WATER?

NYS Department of Health has advised the Town that "PFOA and PFOS were detected at the Town's Butter Hill well location at levels below the U.S. Environmental Protection Agency (EPA) lifetime health advisory level of 70 parts per trillion and the NYS Drinking Water Quality Council's recently recommended 10 parts per trillion maximum contaminant level for PFOA and PFOS. **Based on the results of PFOA and PFOS being below this recommended level, your water is acceptable for drinking**."[6]

Test results of water drawn from the Butterhill Wells are as follows (1 ng/L = 1 part per trillion or PPT):

Date Test Results Received		**5/15/16** (After wells drilled, but before placed online)	**9/27/18** (DOH test results obtained after wells drilled but before distribution – **written results provided to Town on 4/4/19**)	**2/21/19** (DOH test results obtained after wells placed online – **written results provided to Town on 4/4/19**)	**4/27/19** (Town test results obtained after wells online and DOH test results received)
Well #1	PFOS	< 1.3 ng/L (PPT)	2.52 / 2.65 ng/L (PPT) (2 samples drawn)	3.94 ng/L (PPT)	3.68 ng/L (PPT)
	PFOA	< 0.67 ng/L	< 2.00 / < 2.00 ng/L	3.27 ng/L	2.25 ng/L
Well #2	PFOS	<1.3 ng/L	<1.91 ng/L	2.69 ng/L	1.95 ng/L
	PFOA	< 0.67 ng/L	< 2.00 ng/L	3.27 ng/L	3.63 ng/L
Well #3	PFOS	<1.3 ng/L	7.18 ng/L	6.42 ng/L	4.00 ng/L
	PFOA	<0.67 ng/L	3.34 ng/L	3.49 ng/L	3.52 ng/L
Point of Entry (after treatment, before distribution)	PFOS	N/A	< 1.91 ng/L	5.73 / 6.93 ng/L	2.63 ng/L
	PFOA	N/A	< 2.00 ng/L	3.33 / 4.14 ng/L	3.15 ng/L

Please note – boiling water is not an effective means of removing these chemicals.[7]

[6] Letter from NYS Department of Health April-4-2019

[7] http://www.epa.gov/sites/production/files/2016-05/documents/pfoa_health_advisory_final_508.pdf (see page 29)

CAN WE GIVE THE WATER TO OUR PETS?

If you are concerned your pet or livestock may be experiencing health issues related to the drinking water, you should contact a veterinarian to perform a physical exam. There may be other causes, apart from PFAS, which may cause issues of concern, such as liver or kidney disease, or immune response and reproductive issues. Relevant diagnostic tests should be conducted by your veterinarian.

ARE FRUITS AND VEGETABLES THAT HAVE BEEN WATERED WITH WATER RECEIVED FROM THE BUTTERHILL WELLS SAFE TO EAT?

Yes. The current levels of PFOA and PFOS in the water are so low that eating fruits and vegetables that have been exposed to it should not be of concern.[8]

CAN I GET SOMETHING AT HOME TO FILTER PFOA/PFOS IN MY DRINKING WATER?

Yes. There are products homeowners can purchase to filter and reduce PFOA and PFOS in their drinking water. Only products that are certified by NSF International should be purchased and installed. To find products that are certified by NSF International to reduce PFOA/PFOS in drinking water, see NSF International's certification listings for PFOA/PFOS filters.[9]

NSF International verifies that:

- The contaminant reduction claims for PFOA and PFOS shown on the label are true;
- The system does not add anything harmful to the water;
- The system is structurally sound; and
- The product labeling, advertising and literature are not misleading[6]

To make a PFOA/PFOS reduction claim, a water filter must be able to reduce these chemicals to below the EPA healthy advisory limit of 70 parts per trillion. Certified products must be retested periodically and manufacturing facilities must be inspected every year, which ensures products continue to meet all requirements.[6]

Please note, the Town has no plans to pay for or reimburse residents for any home filtration system.

WILL THE FILTER ON A REFRIGERATOR WATER LINE REMOVE PFOA AND PFOS?

The filters on a refrigerator or those like Brita or Pur, which allow you to fill a pitcher with water that is then passed through a filter in the pitcher itself, are not recommended for this purpose. Only filters or filtration systems that are NSF certified (see above) are recommended for this purpose. Here is another link with information regarding the effectiveness of in-home filtration systems for PFAS reduction

https://www.michigan.gov/pfasresponse/0,9038,7-365-86510_87156-469641--,00.html

[8] https://www.health.ny.gov/environmental/investigations/newburgh/faq.htm

[9] http://www.nsf.org/consumer-resources/water-quality/drinking-water/perfluoroctanoic-acid-and-perfluoroctanesulfonic-acid-in-drinking-water

WHAT IS THE TOWN'S PLAN TO PROVIDE ITS RESIDENTS WITH WATER THAT IS SAFE TO DRINK AND USE NOW THAT PFOA/PFOS WAS FOUND IN THE WATER RECEIVED FROM THE BUTTERHILL WELLS?

The Town's immediate plan is to restart the treatment plant at Riley Road so that we can begin to draw and provide water from the Catskill Aqueduct. The start-up is expected to take approximately 2-3 weeks (from the start of the process, which began on or around May 2, 2019) and must receive approval from the NYS Department of Health. Once the Riley Road treatment plant is running, the Town will shut down the Butterhill Wells and Treatment Facility, until we are able to install an acceptable treatment process that will return our Butterhill well water to non-detectable levels of these substances.

WHEN WILL RESIDENTS KNOW THEY ARE RECEIVING WATER FROM THE CATSKILL AQUEDUCT AGAIN?

The Town plans on advising residents when they are being supplied with water from the Catskill Aqueduct again via text (please click here to sign up to receive this text and others pertaining to the Town), social media, and conventional media. It is anticipated that notice via these mediums will be provided within 48 hours.

FROM WHERE WILL RESIDENTS RECEIVE WATER WHEN THE CATSKILL AQUEDUCT IS SHUT DOWN FOR REPAIRS IN OCTOBER 2019 AND 2020?

As of now, the Town plans on drawing water from the Aqueduct until such time as we can provide water from another viable source, which is safe for our residents to drink and use for all other usual daily activities. The Town will make all reasonable efforts to keep our residents informed and apprised of any changes or developments as they occur.

WHY DID NEW WINDSOR SWITCH FROM THE CATSKILL AQUEDUCT TO THE BUTTERHILL WELLS?

In 2006, after years of dealing with planned shutdowns, unplanned shutdowns, increasing costs and decreasing water quality pertaining to the use of water derived from the Catskill Aqueduct and Brown's Pond, when necessary due to the aforementioned issues with the Aqueduct, New Windsor set out to determine the feasibility of finding an independent water source.

In 2008, the Orange County Water Authority (OCWA) began assembling a Master Plan, which identified our region (referred to as the Northeast Orange County region and consisting of New Windsor, the City of Newburgh and the Town of Newburgh) as an area that needed a water sharing plan to address both current and future needs. A feasibility study, completed in 2010, addressed the future water resource needs of this region and evaluated the practicality of constructing a regional water facility that would serve all of these municipalities. The implementation study, completed in 2014, concluded it would be beneficial to all municipalities in the Northeast Orange County region if an independent water supply could be developed, thereby decreasing reliability on the NYC Aqueduct System, upon which all of these municipalities relied. The NYC Aqueduct System was viewed as unreliable due to numerous planned and unplanned shutdowns for repairs, water quality problems, and reduced flow due to turbidity. Developing an independent water source to service these municipalities would also grant NYC increased flexibility and ability to perform more frequent shutdowns with minimal disruption to other communities dependent on the Aqueduct for their primary supply. The study concluded that the City of Newburgh's water supply at Washington

Lake, with a series of strategically placed interconnections, was the best option for supplying water to all the aforementioned municipalities.[10] For numerous reasons, this plan was never implemented.

The Town of New Windsor, looking to find a way forward for the benefit of both its residents and those of its neighbors, continued its search for another alternative. This led to the discovery of a high yielding fresh water aquifer in the Butterhill section of Town. Hydrogeological studies showed the aquifer was not connected to the Moodna Creek, its water did not contain any detectable levels of either PFOA or PFOS, and it was capable of producing over 6.45 million gallons of water per day, more than enough to serve both the Towns of New Windsor and Newburgh, when needed.

In coordination with The New York State Department of Environmental Conservation and other governmental agencies, the Town was authorized to drill and develop the wells. Around the time the development of the wells was complete, issues came to light regarding PFOA and PFOS in the City of Newburgh's water supply. The Town immediately sampled the water in the wells. The results showed there was no detectable levels of either substance. In 2017, with knowledge of the issues regarding PFOA and PFOS being found in the City of Newburgh water supply, the NYS Department of Environmental Conservation issued a permit for the Town to draw water from the wells.

With significant financial assistance from the NYC Department of Environmental Protection, the Town completed development of the wells and construction of the new water treatment plant in September, 2018 and began providing all Town residents with water from the newly developed wells in October, 2018. It was anticipated the new system would save the Town approximately $2.0 million dollars per year, another reason they were developed and brought online.

WHAT WAS DONE TO ENSURE THE BUTTERHILL WELLS WERE NOT CONTAMINATED BEFORE THEY WERE PUT ONLINE?

Each well was tested for PFOA and PFOS before they were put online. No detectable levels of either substance was found. PW1 and PW2 test results 2016 and PW3 test results 2016

WERE THE WELLS TESTED FOR PFOA AND PFOS AFTER THEY WERE PUT ONLINE?

Samples from each well were taken by the NYS Department of Health on September 27, 2018 and again on February 20, 2019. As can be seen in the reports provided (September 27 2018 test results and February 20 2019 test results) and the chart above, the test results show low levels of each substance was found. All results were well below both the EPA lifetime health advisory level of 70 parts per trillion and below the NYS Drinking Water Quality Council's recently recommended 10 parts per trillion maximum contaminant level for PFOA and PFOS. The above test results were received by the Town on April 4, 2019.

10 http://waterauthority.orangecountygov.com/PROJECTS/NORTHEAST%20ORANGE%20COUNTY/NEOC%20Water%20Supply%20Implementation%20Plan.pdf

WHAT IS THE TOWN'S PLAN TO RECOUP THE COST OF THE BUTTERHILL WELLS AND/OR THE EXPENSES INCURRED IN RELATION TO THEIR SHUTDOWN?

The Town is exploring all legal options to recoup costs incurred as a result of the shutdown, including but not limited to a lawsuit against the parties responsible for the discharge of the chemicals in the area of Stewart International Airport, which are believed to have caused PFOA and PFOS to enter our water supply.

WILL THE TOWN REIMBURSE RESIDENTS FOR THE COST OF WATER RECEIVED FROM THE BUTTERHILL WELLS?

The Town has no plans to reimburse residents for the cost of water received from the Butterhill Wells.

WILL THE TOWN PAY FOR OR REIMBURSE RESIDENTS FOR THE COST TO BUY BOTTLED WATER?

The Town is not providing bottled water or reimbursing residents for the cost to purchase bottled water in response to this issue. The Department of Health has declared the water "acceptable" for drinking.

WILL RESIDENTS HAVE TO PAY FOR WATER RECEIVED FROM THE AQUEDUCT

It is expected that Town will be billed for water drawn from the Aqueduct once we begin to obtain water from this source again. If the Town is forced to pay for these bills, those costs will be borne by all those using the water, i.e., the Town's residents, businesses, etc.

WILL THE TOWN PROVIDE FOR OR PAY RESIDENTS WHO WISH TO OBTAIN BLOOD TESTS TO DETERMINE PFOA/PFOS LEVELS?

The Town has confirmed with the NYS Department of Health that free blood testing will be provided upon request by calling 1-800-801-8092. Residents must advise they live in New Windsor, in which case a laboratory order will be provided. Testing will be done at one of two locations: LabCorp in Newburgh or Montefiore St. Luke's Cornwall Hospital's Lab in Newburgh. Please click here for more information https://www.health.ny.gov/press/releases/2017/2017-10-06_newburgh_blood_testing_extension.htm

PRIOR TO THE SHUTDOWN, THE WATER I RECEIVED FROM THE BUTTERHILL WELLS SMELLED LIKE CHLORINE. WAS THIS RELATED TO THE DETECTION OF THE PFOA/PFOS?

No. Any odor which smelled like chlorine is not believed to have been related to the PFOA/PFOS issue. All water is treated with chlorine before it leaves a water treatment facility for disinfection purposes. The amount of chlorine used is closely and strictly monitored to ensure it is safe for drinking before it is permitted to leave the treatment facility and enter the distribution system. At no time after going online did the amount of chlorine in the water provided through the Butterhill well distribution system exceed maximum allowable levels and, in general, the amount of chlorine in this finished water was lower than that of the finished water put into the distribution system during the time the Town received its water from the Catskill Aqueduct.

PRIOR TO THE SHUTDOWN, THE WATER I RECEIVED FROM THE BUTTERHILL WELLS LEFT A FILM ON MY FAUCETS, SHOWERHEADS, DISHES, UTENSILS, ETC. WAS THIS RELATED TO THE DETECTION OF THE PFOA/PFOS?

No. Any "film" seen on one's faucet, showerhead, dishes, utensils, etc. is not believed to have been related to the PFOA/PFOS issue. It is likely the result of the ground water supplied from the wells being "harder" than the surface water the Town previously supplied from the Catskill Aqueduct. While the ground/well water is hard when compared to the water received from the Aqueduct, it is only moderately hard and well within the acceptable range for hardness. While the Town understands the change has come as an unanticipated surprise to some, it is not a public health concern and is not something that the Town plans to address. Residents can purchase water softeners for their homes if they wish, but they must incur this expense on their own, as it is only a matter of preference vs. one of public safety. Systems seem to range from as low as $150 to as high as a few thousand dollars, all without the cost of professional installation.