

Taking Action Against 1,4-Dioxane

Port Washington Water District Stays Proactive and Vigilant Against Emerging Contaminants Informs Community of Proposed Bond Needed to Fund Infrastructure

Port Washington, NY (July 31, 2019)—The Port Washington Water District’s commitment to providing the Port Washington community with high-quality water is unwavering. The District takes an immense amount of pride in the service and products it provides to the community and will continue to invest in its infrastructure to ensure the integrity of the community’s drinking water.

1,4-dioxane has been making headlines of late as it was recently discovered to be present in trace amounts in more than 70 percent of the wells Long Islanders rely on for drinking water. The removal of this contaminant from wells across Long Island is estimated to cost \$840 million in capital investments with an additional \$50 million per year in increased operating and maintenance costs.

“Due to our proactive and continual groundwater testing, the Port Washington Water District has discovered three of our 12 supply wells have detections of 1,4-dioxane that are above the state’s proposed Maximum Contaminant Level of one part per billion,” said Port Washington Water District Board of Commissioners Chairman David Brackett. “Even though 1,4-dioxane is not currently regulated, our Board immediately directed operational changes to reduce our residents’ exposure as much as possible.

What is 1,4-Dioxane?

1,4-dioxane is a synthetic chemical historically used as a stabilizer for industrial solvents, predominantly 1,1,1-trichloroethane (TCA). Although use of TCA was phased out under the 1995 Montreal Protocol and using 1,4-dioxane as a solvent stabilizer has since stopped, 1,4-dioxane is long-lasting in the environment and is present in groundwater as a legacy of industrial manufacturing. Apart from its use as a solvent stabilizer, it is used in small concentrations in a variety of applications, such as inks, adhesives, cosmetics, detergents, and shampoos as well as supplements, food packaging/food and pet food.

How Does 1,4-Dioxane Get Into Drinking Water?

The Port Washington Water District did not cause the 1,4-dioxane contamination, nor did our customers. Like the other public water providers on Long Island, the District relies on groundwater for its drinking water supply, and 1,4-dioxane has reached that groundwater primarily because of industrial manufacturing operations on Long Island that used TCA stabilized by 1,4-dioxane from the 1950s to 1990s. Once dioxane reaches the ground from routine spills or disposal straight to the soil, it migrates to the groundwater and persists for many years. Additionally, trace amounts of 1,4-dioxane present in everyday household products also gets washed down the drain, seeps into the ground and, eventually, into Long Island’s aquifer.

Is 1,4-Dioxane Regulated?

Not yet, but regulations are coming soon. On July 8, 2019, Governor Cuomo announced the New York State Health Department’s recommendation for a 1,4-dioxane MCL of 1 part per billion (ppb). The draft regulations are subject to a 60-day comment period which began on July 24, 2019. Implementation of a standard could occur before the end of 2019.

What Actions are Being Undertaken by the Water District to Address 1,4-Dioxane?

Operational Changes

The three district wells with detections of 1,4-dioxane above the proposed Maximum Contaminant Level (MCL) have been placed in a last-on, first-off status; meaning these wells are only used when the community’s demand for water peaks above the capacity of the other nine wells.

While these current measures are working to help protect the District’s high-quality drinking water, it is only a temporary solution. The District and its engineering team have been aggressively working on long-term plans to implement the treatment necessary to ensure all of the District’s wells fall well below the 1 part per billion (ppb) threshold being considered by the state.

Pilot Program

The District is actively pursuing a pilot program to test the most promising means of treating 1,4-dioxane. The treatment, known as the Advanced Oxidation Process or AOP, is a new, state-of-the-art treatment method that is proving to be an effective method for destroying the 1,4-dioxane compound.

Each well impacted by 1,4-dioxane will require its own separate pilot program where the results of each will be thoroughly analyzed by the Nassau County Health Department before any of the treated water is permitted to enter the public distribution system. The District expects to have its pilot program up and running before the end of the summer.

“While we are working as quickly and aggressively as possible to stay ahead of this situation, we need our residents to be aware that this is a lengthy process that is going to take time to fully implement,” stated PWWD Commissioner Peter Meyer. “We wish that installing this treatment was as simple as buying something off the shelf and hooking it up, but it is unfortunately not that simple. There is a significant amount of planning, design, construction, testing and quality assurance that must occur before a drop of treated water can be placed into the distribution system.”

Funding Needed Treatment

Treating 1,4-dioxane is as complex as it is expensive. Not only does the process require a sophisticated UV treatment unit that—when water is mixed with an oxidant—breaks apart the 1,4-dioxane molecules, but then Granulated Activated Carbon (GAC) systems are needed to filter out any potential residual oxidant or by-product created by the process. The best way to describe a GAC system is an industrial-sized Brita filter capable of filtering contaminants out of thousands of gallons of water every minute.

The District was recently awarded a \$3 million dollar grant by New York State to help offset the expense of needed treatment. While the District is thankful for these funds, it only represents a small portion of the overall capital investment needed.

Along with 22 other Long Island water providers, the District is also pursuing litigation against the manufacturers of 1,4-dioxane with the intent of holding the polluters accountable for their actions. The District’s Board of Commissioners firmly believes residents should not be held liable for the expense of cleaning up the mess left behind by polluters.

Bonding to Close the Funding Gap

While it will continue to aggressively pursue any and all possible funding mechanisms, the District is in the process of seeking bond approval to make more than \$16 million in initial treatment upgrades needed to address 1,4-dioxane and improve existing systems. A hearing will be held on August 13, 2019 by the Town of Hempstead to provide residents with an opportunity to comment on the proposed bond issuance. Prior to this hearing, the District held two separate information sessions at the District’s headquarters for any resident looking to learn more about the detail of the bond and the specific projects it will fund. Residents with questions are encouraged to contact the water district by email, info@pwwd.org or by phone, 516-767-0171.

“There is nothing more important than the integrity of our drinking water and this board of commissioners wholeheartedly believes in openness and transparency,” said PWWD Commissioner Mindy Germain. “While we are not thrilled about the need to request more bonds, the funding is simply necessary to combat emerging contaminants and ensure our systems are resilient for decades to come. We are currently working with a third-party consultant that specializes in ratemaking so we can know exactly how to pay back this bond with as little impact as possible to our water rates and tax levy.”

For further information, or if you have any questions, please call the District at 516-767-0171, email info@pwwd.org or visit www.pwwd.org. To receive regular updates from the Port Washington Water District, please sign up for email updates on the District’s homepage. Don’t forget to stay connected to the Port Washington Water District’s on Facebook at www.facebook.com/pwwaterdistrict.