

PROTECTING NORTH CASTLE'S DRINKING WATER AND INVESTIGATING PFAS

The New York State Departments of Environmental Conservation (DEC) and Health (DOH) are providing this community update to share progress on the State's investigation after groundwater sampling at both the Westchester Garden Center Labriola Landfill (WGC Labriola Landfill) and nearby Armonk Private Wells sites detected the emerging contaminants per- and polyfluoroalkyl substances (PFAS), specifically perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), at levels above New York State's maximum contaminant level (MCL) standards for public drinking water.

DEC, DOH, and local partners are committed to protecting public health and the environment in the town of North Castle and hamlet of Armonk. This community update provides an overview of DEC and DOH's recent actions to ensure the protection of drinking water and protect the community from potential exposures, and the steps the State is taking to address groundwater impacts from area landfills and other potential waste disposal operations in the area.

NY'S Stringent Drinking Water Standards

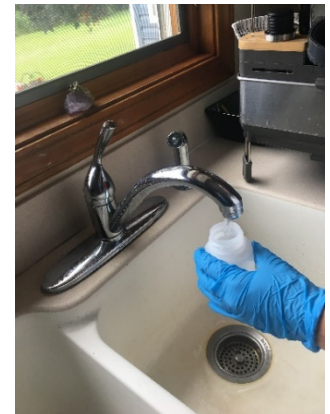
New York's MCLs were developed for public water supplies but are also used as guidance when evaluating private well data. The MCLs are highly protective and among the most stringent PFAS standards in the country, much lower than the current federal drinking water health advisory level for PFOA and PFOS of 70 parts per trillion (ppt); New York's MCL for these emerging contaminants is 10 ppt.

DEC and DOH are investigating groundwater for emerging contaminants at new and legacy State Superfund and Brownfield Cleanup Program sites and landfills. Whenever testing at these sites demonstrates an exceedance of the State's MCLs for emerging

contaminants, DEC and DOH work with local health departments to expand sampling and evaluate community exposures. DEC and DOH then launch a review of potential sources, followed by comprehensive investigations to determine the nature and extent of contamination.

Drinking Water Well Testing

New York State is committing resources to perform and/or oversee a thorough investigation of PFAS detected in groundwater at the WGC Labriola Landfill and Armonk Private Wells site in the town of North Castle. As part of this commitment, the two agencies are overseeing the sampling of drinking water wells (private and public) in the area and are providing an alternate water supply if levels are detected above New York State's maximum contaminant level (MCL) standards for public drinking water supplies.



DEC and DOH are identifying drinking water wells in the area and offering sampling based on the detection of PFAS contaminants in monitoring wells at the WGC Labriola Landfill and Armonk Private Wells sites at concentrations that exceed the public drinking water MCLs. The state is using a phased approach that targets the closest potentially affected drinking water wells with sampling expanding outwards until the extent of impacted water supply wells is determined. This approach identifies an area of interest comprised of water supply sources that draw from groundwater.

The current area of interest for the WGC Labriola Landfill extends approximately ½ mile radially away from the landfill. The current area of interest for the Armonk Private Wells site extends over a ½ mile radially from the site. The two study areas overlap in the area of Briggs Lane and Whippoorwill Road East. See the figure on page 5. If contamination is detected above the State's MCL of 10 ppt for PFOA or PFOS, the State acts to address exposures and provide an alternate water supply to owners and occupants of the affected properties. Comprehensive investigations are also launched to determine the nature and extent of contamination.

INFORMATION ON PFAS

Per- and Polyfluoroalkyl Substances (PFAS) are a group of chemicals used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. Fluoropolymer coatings are blends of resins and lubricants used in products such as water-repellent clothing, furniture, adhesives, paint and varnish, food packaging, heat-resistant non-stick cooking surfaces and insulation of electrical wires. Chemicals in this group include PFOA and PFOS.

Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. Some of these compounds remain in the environment and in the human body for many years, but levels go down once exposures have ended. See *where to find information* below for additional resources.

Westchester Garden Center-Labriola Landfill Investigation

The WGC Labriola Landfill (DEC site #360218) is a 7-acre site located approximately 0.4 miles south of the Wampus Lake Reservoir in the town of North Castle in Westchester County. The site is located within a residential neighborhood and is bounded by Wampus Lakes Drive to the southwest and northwest and the Westchester Garden Center to the northeast. The approximately 3.5-acre inactive landfill footprint encompasses the central portion of the site.

The landfill operated from approximately 1954 to 1974 and primarily accepted lumber and building debris. The

landfill itself was historically an open-faced dump, at one time nearly 40-ft tall, and exhibited some evidence indicating an underground fire and potentially ongoing disposal until 1979.

Emerging contaminant sampling was completed by DEC's Division of Materials Management (DMM) under the State's Inactive Landfill Initiative in May 2019 which included the collection of one groundwater sample from an existing monitoring well. Groundwater emerging contaminant test results showed PFOA (34 ppt) and PFOS (21 ppt), exceeding the State's 10 ppt MCL. Results for 1,4-dioxane were non-detect.

To date, DEC and DOH have identified over 200 wells for sampling within a ½-mile radius of the WGC Labriola Landfill, requested owner's approval to collect a sample, and based on those that granted approval, completed sampling of 106 drinking water wells. Of those 106 wells sampled, 57 drinking water wells were found to contain concentrations of PFOA and/or PFOS above the established MCLs and owners are being provided bottled water or Point-of-Entry-Treatment systems (POETs). Resampling is recommended for 32 wells, and no further action is needed for the remaining 17 wells.

Due to the presence of PFAS onsite and in offsite drinking water wells, DEC designated the landfill as a potential inactive hazardous waste disposal site in June 2021. In accordance with the State Superfund process, a Site Characterization (SC) began (more details on page 4). The SC allows DEC to determine whether the landfill presents a significant threat to public health or the environment. Documents pertaining to this site are available in DECInfo Locator.

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Armonk Private Wells Site

The Armonk Private Wells site (DEC site #360005) is located in the vicinity of Maple Avenue, Main Street, and Bedford Road, approximately one mile southeast of the WGC Labriola Landfill. The site is 3.2 acres in size and consists of a supermarket, parking lot, and retail stores. Historically, three dry-cleaning businesses operated within a ¼-mile of the site, contributing to the release of chlorinated solvent contamination to the groundwater. In 1986 the site was added to the State Superfund Program. Cleanup actions for the solvent in groundwater were implemented in 1997. DEC currently operates, maintains, and monitors an on-site groundwater treatment system to treat tetrachloroethylene, the site's primary contaminant of concern.

The on-site groundwater extraction and treatment system consists of three extraction wells which convey water via subsurface piping to the treatment building, where it passes through a series of two 6,000-pound granular activated carbon (GAC) treatment vessels to adsorb site contaminants. Treated water is discharged to a 300-gallon effluent holding tank and is subsequently pumped or siphoned through the discharge effluent line to a storm water catch basin which drains by gravity into the Wampus River.

DEC and DOH continue to monitor the site and, as part of New York State's Emerging Contaminant Sampling Initiative to evaluate and address emerging contaminants in drinking water, began sampling on-site groundwater in 2018 to determine if PFAS or other contaminants may be present.

Four groundwater samples collected from site monitoring wells detected levels for PFOA (38 ppt) and PFOS (250 ppt) that exceeded the State's MCLs. Groundwater was non-detect for 1,4-dioxane. The treatment system effluent discharge samples were non-detect for all emerging contaminants.

Following the groundwater and effluent sampling for emerging contaminants, properties within ½-mile of the

site that utilize drinking water wells (private and public) were identified and contacted by DEC and DOH with offers to have their drinking water tested for PFAS. To date, DEC and DOH have identified over 200 wells for sampling within a ½ mile radius of the Armonk Wells site, requested owner's approval to collect a sample, and based on those that granted approval, completed sampling of 173 drinking water wells. Of those 173 wells sampled, 101 drinking water wells were found to contain concentrations of PFOA and/or PFOS above the established MCLs and owners are being provided bottled water or Point-of-Entry-Treatment systems (POETs). Resampling is recommended for 49 wells and no further action is needed for the remaining 25 wells.

WHERE TO FIND INFORMATION

DECINFO LOCATOR

Armonk Private Wells
<https://www.dec.ny.gov/data/DecDocs/360005/>

Westchester Garden Center Labriola Landfill
<https://www.dec.ny.gov/data/DecDocs/360218/>

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR) FACT SHEETS

<https://pfas-1.itrcweb.org/fact-sheets/>

INTERSTATE TECHNOLOGY AND REGULATORY COUNCIL (ITRC) FACT SHEETS

<https://www.atsdr.cdc.gov/toxfaqs/tfacts200.pdf>

State Superfund Process

As indicated above, DEC began an investigation at the WGC Labriola Landfill under the State Superfund Program.

The first step under the State Superfund program is a Site Characterization (SC) investigation to determine if hazardous waste is present and whether it poses a significant threat to public health or the environment. The Site Characterization will include additional

installation and sampling of groundwater monitoring wells, collection of samples from any visible seeps, and collection of surface water and sediment samples, along with a review of historical documents to determine types of waste placed in the landfill. Based on these findings, DEC may initiate a Remedial Investigation (a more detailed investigation) to determine the full nature and extent of contamination and develop a plan to address the contamination to ensure the protection of public health and the environment.

Ongoing Community Engagement

Drinking water well sampling is ongoing and will be expanded as needed based on sampling results from drinking water wells and from the source investigations. DEC and DOH will continue to keep the community informed about area-wide activities throughout the process.

NEXT STEPS

DEC and DOH will continue to evaluate the need for and oversee any additional drinking water well sampling, including taking actions to address exposures. DEC will also continue to work with the owner of the Westchester Garden Center Labriola Landfill and oversee additional investigations as appropriate. While the current focus of investigation is on the two sites as the primary potential sources of groundwater contamination affecting private drinking water supplies in the area, DEC will continue to “follow the data” and consider other potential sources as warranted.

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