House Street Disposal Area
Plainfield Township, Belmont, Kent County
Per and Polyfluoroalkyl Substances (PFAS)
Groundwater Investigation

Frequently Asked Questions

What is the issue in Belmont?

PFAS (sometimes known as Perfluorinated Chemicals or PFCs) have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminate on the national landscape. The PFAS are a class of man-made chemicals that were introduced in the 1950s to make products that resist heat, stains, grease, and water. For example, PFAS may be used to keep food from sticking to cookware, to make sofa cushions and carpets that are resistant to stains, to make clothes and mattresses that repel water, and in food packaging like pizza boxes and airtight bags. The PFAS help reduce friction and are widely used in a variety of other industries including aerospace, automotive, building and construction, and electronics. The PFAS break down very slowly in the environment and are often characterized as persistent meaning they do not readily breakdown in the environment.

In July 2017, residential well sampling near a former disposal area used by Wolverine Worldwide (Wolverine) detected the presence of PFAS in drinking water. Wolverine utilized the property located **near House Street NE and Herrington Avenue NE** for the disposal of industrial wastes generated from the production of water resistant consumer products. The property is located in rural Plainfield Township, Kent County, Michigan. Area residences surrounding the disposal area are served by private water wells. In the mid-1960s, the property was operated as a licensed landfill under Act 87 of the Public Acts of 1965 for the disposal of solid waste. Wolverine utilized the property exclusively to dispose of lime-sludge wastes from the treatment of tanning wastes. Lime slurry wastes were also disposed of in trenches dug across the property. The property also contained seepage pits, which were used for disposing of lime liquor (a mixture of lime, water, dissolved protein, and fat), and other liquid wastes.

In April 2017, Wolverine under the oversight of the Michigan Department of Environmental Quality (MDEQ), Kent County Health Department (KCHD) and the Michigan Department of Health and Human Services (MDHHS), sampled eight wells on Brent Drive, Brittney Drive, and Herrington Avenue. All the wells had PFAS far below the EPA lifetime health advisory criteria of 70 parts per trillion (ppt). In June 2017, while the MDEQ and Wolverine were in discussions for an investigation of the former disposal property, the Belmont Armory drinking water well was found to contain PFAS compounds above the EPA health advisory level. With this new information, the MDEQ and Wolverine began sampling residential wells south of the disposal area. In July

2017, Wolverine began sampling residential wells around the property. The sampling was conducted in response to citizen concerns regarding the potential for the waste in the disposal area to have included PFAS.

What are the lifetime health advisory levels?

The EPA has set a lifetime health advisory level for two PFAS in drinking water: perflourooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). The lifetime health advisory level for PFOA and PFOS combined is 70 nanograms per liter (ng/L, or parts per trillion [ppt]), which is the same as 0.07 micrograms per liter (0.07 ug/L).

There may be other PFAS found in some drinking water samples. However, the EPA has only set health advisory levels for PFOA and PFOS.

What is the state doing about this situation and which agencies are involved?

The MDHHS, the KCHD, the Michigan Department of Natural Resources, the MDEQ and the Michigan Department of Agriculture and Rural Development are involved to support the effort. In consultation with the MDEQ, the KCHD and the MDHHS, Wolverine is voluntarily conducting the response activities under Section 20114a of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Proactive measures are underway to test area residential water samples for PFAS. Some residential samples have detected PFOA and PFOS at combined levels above the U.S. EPA lifetime health advisory level of 70 parts per trillion. Wolverine is providing bottled water until a National Sanitation Foundation (NSF) certified single source water filter is installed to homes sampled in the "Study Area". Homes located within the "Buffer Zone" are being provided bottled water until sample results come in, at which point further response actions will be determined. Wolverine along with state and local environmental experts and officials are sharing testing and other information with residents of Plainfield Township and the surrounding community.

If any resident has additional questions regarding testing of their well they may contact the State of Michigan's Environmental Assistance Center at 800-662-9278.

What is the MDEQ doing?

The MDEQ works in collaboration with others to manage risk at sites of environmental contamination. The MDEQ's role when a potentially liable party is voluntarily performing response activities under state law is to ensure that the activities protect the public health, safety, welfare and the environment. The MDEQ will monitor the activities of the potentially liable party, provide technical assistance and ensure that the activities comply with state law.

In addition, the MDEQ will be investigating the offsite (non-House Street) Wolverine related alleged disposal areas using state funds.

What do I do if I have a Wolverine disposal area on my property, or I know of a Wolverine disposal area?

If you have information of a rumored or alleged Wolverine disposal area, please gather the necessary information on the **Data Collection Form for Rumored Waste Disposal Areas – Form** and then pass the information onto the DEQ-RRD-HouseStreet@michigan.gov website for processing by the MDEQ project staff.

Who do I contact if I want to have my water tested?

- If you live in the "Study Area" or "Buffer Zone" and would like to have your private well tested, please contact Lori Powers or Mark Westra at Rose and Westra by telephone: 616-258-7234, or by email at House-Street@gza.com. Alternatively, you may also contact Wolverine by telephone at 616-866-5627, or by email at HouseStreet@wwwinc.com.

- If you live out of the "Buffer Zone" or "Study Area" and would like to have your private well tested, please leave your contact information and MDEQ staff will add you to the list of requests for sampling. The MDEQ will continue to monitor the homes close to the "Buffer Zone" lines and add additional homes when the data suggests the sampling is warranted and make that recommendation to Rose & Westra who will then contact you to arrange the sampling.

- If you still wanted to sample your home by an independent company, you could hire a consultant to do that. A local firm that has experience sampling for PFAS and knows what labs to use is:

  Fleis & Vandenbrink
  2960 Lucerne Dr. SE
  Grand Rapids, MI 49546
  (616) 977-1000

I have received my water test results. What do my drinking water sample results mean?

If you require assistance in interpreting your drinking water sample results or have health related questions, please contact the KCHD at 616-632-6900, or the MDHHS at 1-800-648-6942.

My drinking water contains PFAS. What should I do?

If your lab results indicate any detection of PFAS below the EPA lifetime health advisory level, then the MDHHS and the KCHD recommend that you do not use your well water

for drinking, cooking, making baby formula or food, washing fruits or vegetables, or brushing your teeth unless your well water is filtered for PFOA and PFOS with a certified water filter system. Touching the water is not harmful. You can bathe, wash dishes, launder your cloths, and clean with your well water.

Because of the inconvenience this recommendation may cause, Wolverine will be providing a water filtration system free of charge. The **Aquasana 3-Stage Claryum Under Counter Max Flow filtration system** is certified by the NSF to reduce PFOA and PFOS by 96 percent (%).

For those homes with > 70 parts per trillion PFOA/PFOS confirmed with sampling, Wolverine has offered whole house filters to provide a reliable drinking water source.

For homes with <70 parts per trillion PFOA/PFOS confirmed with sampling, Wolverine has installed the under the counter filtration systems to provide a reliable drinking water source.

What if a home has been vacant for over a year? If the water has not been used, would the sample be affected?

Having standing water in a well might potentially cause an inaccurate result. It is possible that an unused well would not show contamination if that well was not in the direct path of groundwater flow from a source of this contamination, but when in use, the well pulls the contaminant out of its normal flow pattern and into the well. Individual results may vary depending upon the direction, depth, and distance of the drinking water well from source(s) of this contamination.

How is it possible for residents to have different test results if everyone is getting their water from the same aquifer? If PFAS are in the groundwater, wouldn't everyone be impacted?

The aquifer in the area is considered to be sand. Sand comes in different “grain sizes”: very fine sand, coarse sand, sand mixed with silts, sand and gravel, etc. Water will flow through the coarser material easier than the fine grained and/or sand with silt. This is known as permeability. The soil in the area was created as glaciers moved, slowed/stopped, melted, and then moved again, laying down the various types of soils in the areas as it moved. The “glacial till”, as it is called, is known for depositing various types of soil and mixes of soil. Depending on where the melting and movement occurred, you can have a variety of different soil types. This will affect how the water, and therefore the contaminants, move in the aquifer.

Individual results may vary depending upon the direction, depth, and distance of the drinking water well from source(s) of this contamination.

It is also possible given the widespread use of these compounds in consumer products that some positive results may be due to these chemicals being present in plumbing components and not originating from a distant source.

These substances could even be discharged into onsite wastewater systems (septic tanks and tile fields) at a home, and then re-enter the aquifer.

May I bathe or swim in water containing PFAS?

You may bath and swim in water containing PFAS. The PFAS do not easily absorb into the skin. It is safe to bathe, as well as doing your laundry and household cleaning. It is also safe to swim in and use recreationally. Getting water with PFAS on your skin will not harm you.

What are the health effects of drinking water containing PFAS?

If you are concerned about health effects from exposure to PFAS in your drinking water, please contact the MDHHS Toxicology Hotline at 1-800-648-6942, or the KCHD at 616-632-6900.

Additionally, if you have medical questions, talk to your doctor. Information is available in the PFAS Clinician Guidance document available at www.atsdr.cdc.gov/pfc in the "Additional Resources" section of the webpage.

For additional information, please visit the State of Michigan's Belmont Website at www.michigan.gov/belmont to find an ATSDR – PFAS Fact Sheet concerning PFAS in drinking water.

Do plants hold the PFAS? If so, how long?

The Minnesota Department of Health conducted studies where people's gardens were watered with PFAS-contaminated water. In some cases, the soil also had PFAS in it. The results suggested the plants did not absorb PFAS very well and did not contain amounts of PFAS that could harm public health.

Are my pets and livestock at risk?

The EPA has established lifetime health advisory levels for PFOA and PFOS for drinking water used by people. These health advisory levels have not been formulated specifically for pets or livestock. If your drinking water levels exceed the EPA's lifetime health advisory level of 70 ppt for PFOA and PFOS combined, then it should be assumed that pets and livestock may be at risk, and alternative water supplies should be used.

Is there anything I can do to protect my animals?

Have your drinking water well tested for PFAS. If your drinking water is deemed safe for human consumption, it would also be safe for your pets or livestock. If your drinking water contains PFAS equal to or higher than EPA's lifetime health advisory level, then the best way to avoid PFAS is to seek an alternate water supply such as a municipal

water source, or install a water filtration system certified to remove PFOA and PFOS. Additionally, bottled water could be used for small animals.

What should I do if I suspect my animal is affected?

Contact a veterinarian to perform a physical exam if you suspect that your pet or livestock is experiencing liver, kidney, immune response, or reproductive issues. There may be other causes, apart from PFAS, that may cause issues with the liver, kidney, immune response, or reproductive system. Work with your veterinarian to conduct relevant diagnostic tests.

What other ways could I be exposed to PFAS?

The PFAS are used in many consumer products. They are used in food packaging, such as fast-food wrappers and microwave popcorn bags; waterproof and stain-resistant fabrics, such as outdoor clothing, upholstery, and carpeting; nonstick coatings on cookware; and cleaning supplies, including some soaps and shampoos. People can be exposed to these chemicals in house dust, indoor and outdoor air, food, and drinking water. Usually the amounts of PFAS a person may be exposed to are quite small.

What is the timeline to resolve this situation?

State and local agencies are actively working to obtain more information about this situation as quickly as possible. Wolverine has conducted additional water well testing of homes located in the "Buffer Zone". Once data is received, the next phase of the study area will be outlined, and Wolverine will begin sampling. This additional data will help us answer more questions and determine next steps.

Additionally, the hydrogeologic investigation is currently underway on the former disposal facility site, with sampling of the newly installed monitoring wells completed the second week of October.

How can I stay updated on the situation?

For more information, please visit our www.michigan.gov/belmont website which will have updated information on the situation. Using this website, you can also send an inquiry to any state agency.

Additionally, you may sign up to receive weekly newsletters from the KCHD by visiting their website https://www.accesskent.com/Health/PFAS/belmont.htm.