STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS

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STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS - PROCESS

Preparation | Sampling | Communication | Results
STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS - PREPARATION

• Local Health Departments and the MDEQ updated the list of Community Public Water Supplies in Michigan

• Local Health Departments provided a list of schools on Type II wells to the MDEQ

• Statewide press release on May 18, 2018

• MDEQ’s contractor AECOM is scheduling sampling visits with a goal to be done sampling by December 2018
STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS - SAMPLING

- MDEQ developed county level sampling priority map based on potential PFAS sources, geologic sensitivity and population
- Three (3) teams of samplers: One (1) in the Upper Peninsula and two (2) in the Lower Peninsula
- Results take about 4-6 weeks to get back from the laboratory
STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS – COMMUNICATION

• MDEQ is notifying Local Health Departments when sampling will occur in each area

• MDEQ will notify the water supply of the results and Local Health Department will be a copied on those letters

• Water supplies can use the communication toolkits to notify their customers

• Results posted to the MPART website

• Public meetings
  • Results of PFOA+PFOS greater then 70 ppt the MDEQ/MDHHS will initiate scheduling a public meeting
  • Results of PFOA+PFOS less then 70 ppt public meeting will only be held at the request of the Local Health Department
STATEWIDE PFAS TESTING OF PUBLIC WATER SUPPLIES & SCHOOLS - RESULTS

For PFAS reported as Not Detected and less than 10 parts per trillion, the DEQ recommends annual monitoring until levels are consistently and reliably below a level that is considered a risk to public health.

For PFOA + PFOS reported greater than 10 parts per trillion and less than 70 parts per trillion or where total tested PFAS is greater than 10 parts per trillion, the DEQ recommends owners of water systems collect a confirmation sample within one month, remove the contamination source, if possible, minimize exposure to the extent possible, evaluate treatment technologies, begin quarterly monitoring until a permanent remedy is obtained or when levels are consistently and reliably below a level that is considered a risk to public health.

For PFOA + PFOS greater than 70 parts per trillion, the DEQ requires owners of water systems to notify their consumers, and respond to the DEQ within 30 days identifying a plan with timeline to address the contamination. Meanwhile, DEQ will resample immediately and investigate the source of PFAS contamination. DEQ will offer their immediate technical assistance for installation of treatment technology, technical assistance for removal of the source from operation, if feasible, or place on standby if possible, and evaluate alternatives for replacing lost capacity of the water source.
PFAS RESPONSE WEBSITE

https://www.michigan.gov/pfasresponse/
FREQUENTLY ASKED QUESTIONS

https://www.michigan.gov/pfasresponse/0,9038,7-365-86704---,00.html
Health

The State of Michigan is working with the National Center for Environmental Health, Agency for Toxic Substances and Disease Registry (ATSDR) and additional partners to better understand how PFAS might affect people’s health. Scientists are still learning about the health effects of exposures to mixtures of PFAS. Although more research is needed, some studies in people have shown that certain PFAS may:

- affect growth, learning, and behavior of infants and older children
- lower a woman’s chance of getting pregnant
- interfere with the body’s natural hormones
- increase cholesterol levels
- affect the immune system
- increase the risk of certain types of cancer

National health information from ATSDR: PFAS and Your Health

If you are concerned about exposure to PFAS in your drinking water, contact the Michigan Department of Health and Human Services Toxicology Hotline at 800-648-0883.

Questions on the health impacts of PFAS? Visit our FAQs for more information.
Home Water Treatment

In-Home Water Filtration Systems

Per-and polyfluoroalkyl substances (PFAS), also known as perfluorinated chemicals (PFCs), are a large group of more than 3000 man-made fluorinated organic chemicals that have been used since the 1950s as firefighting foams, oil and water repellent products, and surfactants. PFAS can be released to the environment by manufacturing and use of items that have PFAS in them. PFAS in the environment may enter surface water, groundwater, and drinking water wells. Some wells may have PFAS levels, or amounts, that are high enough to cause concern for human health. For these residences, in-home water filtration systems are recommended to lower the levels of the PFAS in their drinking water.

The U.S. Environmental Protection Agency (U.S. EPA) has set a lifetime health advisory (LTHA) level for two PFAS, perfluorobutanoic acid (PFBA) and perfluorononanoic acid (PFNA), in drinking water. An LTHA is set to protect human health. To date, the EPA has not set LTHAs for the other PFAS chemicals.

The LTHA level for PFDA and PFOS is 70 parts per trillion (ppt), either singularly or combined when both PFDA and PFOS are found in drinking water. PFDA and PFOS levels below the LTHA are not expected to harm human health. Some filtration systems that lower the amounts of PFAS and PFHxS below the LTHA have been certified. However, no systems have been certified for lowering all PFAS.

Certified Filtration Systems

NSF International was founded in 1944 to standardize sanitation and food safety requirements, and is accredited internationally. NSF developed a standard for reducing PFOS and PFOA in water in 2016.

In order to be certified for PFOS and PFOA reduction, a water filter must undergo extensive testing and meet strict NSF P473 requirements set by the American National Standard Institute for drinking water - health effects. Reverse osmosis systems must also meet all of the requirements in the NSF/ANSI 58 standard. To meet these requirements, a filter must be able to reduce PFOS and PFOA below the EPA LTHA level. Certified products must be reevaluated periodically, and their manufacturing facilities must be inspected every year.

To date, NSF has certified some polyaromatic carbon (GAC) and reverse osmosis filters for PFOS and PFOA reduction from three manufacturers, Aquasana, Carbon Solutions, and Alamo. Search a filter and access its Performance Data Sheet and link. This sheet provides information on certifications, capacity, warranty, and other details.

Non-Certified Filtration Systems

There may be other filters that lower PFAS. However, without the NSF P473 certification, it can be difficult to know which filters effectively reduce PFAS and which do not.

In 2007, the Minnesota Department of Health hired Water Science & Marketing, LLC and the Water Quality Association to determine if water filtration systems could lower PFAS in water. At that time, there was no NSF standard for reducing PFAS. Fourteen filters were tested, and seven of these were shown to sufficiently reduce the amount of PFAS in water. Most of these filters were activated carbon devices and seven were reverse osmosis devices. None of the devices were, or are currently, certified for PFAS removal. It is important to note that the Minnesota Department of Health does not certify water filters.

Here is more information about the study.

Types of Filtration Systems

- Granular activated carbon (GAC): These filters use carbon to remove chemicals, such as PFAS, from water. They are typically used in reverse osmosis systems.
- Reverse osmosis (RO): These filters use pressure to force water through a semi-permeable membrane, which removes impurities, including PFAS.

Additional resources:
- Michigan PFAS Response:
  - Website: https://www.michigan.gov/pfasresponse/0,9038,7-365-86510---,00.html
- EPA PFAS Information:
  - Website: https://www.epa.gov/pfas
• Environmental Investigation Areas
• Public Water Supply Sampling
• Wastewater/Industrial Pretreatment Program
Local Public Health will be copied on the results letters

Results will be posted to this page 5 days after they have been sent to the Public Water Supply or School on well water.

Communication Toolkits have been developed for the Public Water Supplier and Schools on well water.
NEWS AND EDUCATION

https://www.michigan.gov/pfasresponse/0,9038,7-365-86513_86548---,00.html

News and Education

PFAS STORIES IN THE NEWS

KCHD and MDHHS Issue Health Advisory regarding PFAS Foam on Rogue River

Following PFAS Summit, EPA Will Take Steps To Address Contamination

Michigan lobbies for nationwide PFAS rules at EPA summit