



PFAS in Michigan

What we know & what we need

Unfortunately, this storyline is getting all too familiar: there's a new chemical of concern that poses a public health risk. Industries have widely used this chemical for decades, but its health impacts are not well studied, and the potential harmful properties of this chemical have been suppressed by the manufacturer. The class of chemicals this time: PFAS, or per- and polyfluoroalkyl substances. Thus far, there are 35 confirmed PFAS sites around Michigan. According to the Michigan Department of Environmental Quality (DEQ), more than 1.5 million residents have been drinking water contaminated with PFAS and there could be as many as 11,300 potential sites where PFAS may have been used.

How did PFAS get here?

PFAS are a family of more than 3,000 manufactured chemicals that were put into production in the 1950s. The unique properties of PFAS allowed manufacturers to create waterproof, stain resistant, and non-stick products. PFAS were used in practically everything, including carpeting, waterproof clothing, food paper wrappings, upholstery, takeout containers, furniture, some cosmetics and more. They were also used in a firefighting foam called AFFF, which branches of the armed forces and fire departments used all across the country.

Studies documenting work-related exposure to PFAS began surfacing in the 1970s and 1980s, and by the early 2000s, it became clear that PFAS were contaminating drinking water. After this, industries began to phase out the use of PFAS and production of AFFF ceased (although the remaining AFFF continues to be bought, sold and used today).

What is being done in Michigan?

Michigan's government is already ahead of most other states in addressing this issue. The state established the

Michigan PFAS Action Response Team (MPART) for a rapid and multidepartment response. They are also requiring all public water systems and 461 schools to test their water supplies and have asked wastewater treatment plants to test their discharge. Furthermore, Michigan is getting its labs ready for PFAS testing, helping to reduce the time it takes to get back certified results. They are also testing different fish and recommending limited or no consumption of certain species due to PFAS contamination. All this information is available to the public at michigan.gov/pfasresponse.

How does PFAS impact our health?

There are a number of ways a person can come in contact with PFAS, but the most common way is through drinking water. So far, researchers have only studied a handful of these chemicals for their health implications; however, preliminary research suggests that PFAS may increase thyroid disease, decrease fertility in women, cause developmental issues in infants and older children and increase blood pressure and cholesterol levels. They have also been linked to increased risks of kidney and testicular cancer.

Currently, the EPA's recommended lifetime health advisory limit is set at 70 parts per trillion (ppt) for PFOA and PFOS (the two best-studied PFAS compounds). However, a health advisory limit is non-enforceable, meaning that drinking water system operators are not required to adhere to this recommendation. But even this number may be too high. A recent draft study by the Centers for Disease Control and Prevention (CDC) found that, for certain PFAS, health issues began presenting themselves at significantly lower levels than the current EPA recommendation of 70 ppt. The Association of Drinking Water Administrators expects these study results will lower the recommended safe level to 7 ppt for PFOS and 11 ppt for PFOA, seven to ten times lower than the EPA's current recommendation.

Protecting the public

Clearly, more research needs to be done in regards to PFAS, but just because we don't yet fully understand these chemicals does not mean they should continue to be allowed in our drinking water unchecked. To regulate PFAS, the state must establish a drinking water standard under the Michigan Safe Water Drinking Act. A drinking water standard would be created by implementing a Maximum Contaminant Level (MCL) for PFAS, which determines the highest level of a contaminant that is allowed in drinking water. Based upon the most recent science, the MCL should be between 7 to 11 ppt, but this number may change as more information is discovered. Only when we set this standard can Michigan begin to truly regulate and monitor the amount of PFAS in our drinking water and protect our health.

While a standard for PFAS can't come soon enough, Michigan should begin taking preventative actions now. No filtration system is guaranteed to remove all PFAS, but with adequate funding, steps could be taken in the right direction. The state should fund and implement point-of-use filters for individual residents in impacted communities and establish a grant program to help public water systems add needed treatment

technologies, like granular activated carbon filtration processes. Both of these filtration methods have been found to significantly lower certain PFAS levels. The state should also fund the connections of residential homes to public water systems when PFAS are found in their wells, if this is available. To accomplish all this, the legislature should pass HB 5898 to fund these water infrastructure projects and to ensure adequate revenue to address ongoing PFAS responses around the state.

Transparency – our right to know

Going forward, it will be critical that the DEQ conveys the best information available on PFAS, in a timely manner, and in ways that members of the public will find helpful. More specifically, the DEQ should be required to publish all of their test results and information gathered from other levels of government. The agency should also create and update a map with all known contaminated groundwater plumes in Michigan and make it available to the public.

Lastly, a report that warned of the widespread dangers of PFAS was circulated within the DEQ back in 2012. It should be investigated and reported out why this report did not get the attention it deserved six years ago and what steps have been taken to make sure this doesn't happen again.

Cleanup requires standards and funds

Michigan has established a cleanup standard for just two of the thousands of compounds that make up this class of chemicals, but even these limited standards are being widely criticized for not doing enough to protect public health. Unfortunately, the state has also proposed making it harder and slower to update those standards in the future. They are trying to repeal the rule that allows them to quickly set a new standard for a chemical not currently regulated (which is virtually all PFAS), and require a process that can take a year or more to update any current standard. Since new information about PFAS is learned every day, Michigan's cleanup regulations must be flexible enough to allow

the DEQ to adapt to emerging research on PFAS and other pollutants. The current slow and bureaucratic process stands in the way of cleaning up contaminated sites in the most efficient and effective way possible.

Coupled with updating our cleanup standard, the state must dedicate funds to contaminated site remediation. Funding to address sites of environmental contamination was virtually exhausted in 2018, and although the state legislature introduced a replacement proposal, they took no further action. Right now, there are 3,000 abandoned contamination sites across Michigan, and no funds to clean them. Moving forward, it's imperative that the legislature passes SB 943 to create a sustainable funding source for these sites.

Who is responsible?

In the case of PFAS, however, the residents of Michigan should not be responsible for cleaning up the mess of others. Military bases across the state are hotspots for PFAS pollution, and recent investigations are showing that the Department of Defense knew and withheld crucial information about PFAS. When examining for PFAS in the environment, the DOD purposely used testing methods that only identified a fraction of the chemicals, when more advanced methods of testing were available to them. Along with skewing the data, the DOD also pressured the CDC into withholding the aforementioned study on the health risks of PFAS. This utter disregard for public health cannot stand. By working with other states, Michigan can leverage the federal government, especially the DOD, to fund cleanup and remediation efforts. This should include the DOD implementing filtration systems and covering the cost of providing clean water.

Along with the DOD being held responsible for their actions, so should the manufacturers who produced PFAS back in the mid-20th century. There is evidence to suggest the companies that manufactured PFAS knew these chemicals posed a potential health risk. Even so, they and the industries that used their product haphazardly disposed of their waste, and as a result, PFAS contamination is ubiquitous. Should it be on the

residents of Michigan to clean up their mess? Of course not. Our current law only holds responsible the parties who caused the release of the chemicals. Instead, the law should be amended to include any company that is aware of the dangers related to the chemicals they produce and sell, but fail to disclose them to the public.

Michigan should lead the country

PFAS contamination is not just a Michigan problem; it's a national issue that must be rectified. Michigan should lead a combined effort by the states to marshal the needed political forces to get the federal government to respond to this growing issue. Our federal government should be providing the funds to clean up PFAS contamination, implementing treatment technologies to protect drinking water, researching the health impacts of PFAS, and setting protective and enforceable limits of exposure to PFAS.

At home, Michigan needs to continue to be proactive in addressing the growing PFAS crisis. Already, there are 1.5 million people in Michigan who have been drinking municipal water contaminated with PFAS. We are poised to become a leader in helping to teach other states how to address PFAS contamination, but we must act soon. These are not the only emerging contaminants of concern that we need to be alarmed about. However, if Michigan takes the initiative now, we can ensure we have a system and set of policies in place going forward that will truly protect human health and our environment.

ACTIONS WE CAN TAKE NOW

Michigan Environmental Council recommends these policy solutions to ensure there is a system in place to protect human health and the environment against PFAS and other emerging contaminants of concern:

Public Health

- Establish a drinking water standard for PFAS under the Michigan Safe Water Drinking Act by creating a Maximum Contaminant Level (MCL)

for PFAS that uses the best science available. Based on a CDC draft study, this would indicate 7 ppt for PFOS and 11 ppt for PFOA, but this may change with more information.

- Reassess the cleanup standard for PFAS in Part 201 of the Natural Resources and Environmental Protection Act due to the aforementioned CDC draft study and emerging health research.
- Fund and implement point-of-use filters for individual residents in impacted communities.
- Establish a grant program to add needed treatment technologies to public water systems, like granular activated carbon filtration processes.
- Fund the connections of residential homes to public water systems when PFAS are found in their wells, if this is available.
- Pass HB 5898 to fund water infrastructure projects and ensure adequate revenue to address ongoing PFAS responses around the state.

Transparency

- Require the DEQ to publish all test results and information gathered from other levels of government.
- Create and update a map with all known contaminated groundwater plumes in Michigan and make it available to the public.
- Investigate why a 2012 PFAS report was disregarded by the agency. It should be reported out why this happened and what steps have been taken to make sure it doesn't happen again.

Cleanup

- Keep in place the rule in Part 201 of the Natural Resources and Environmental Protection Act that allows new cleanup standards to be set quickly for chemicals not currently regulated (which is virtually all PFAS).
- Pass SB 943 for a sustainable funding source for contaminated site remediation.

Accountability

- Michigan should lead a combined effort by the states to marshal the needed political forces to make the federal government, especially the Department of Defense, fund cleanup and remediation.
- Change our laws so that they hold not only the party who caused the release of chemicals responsible, but also include any company that is aware of the dangers related to the chemicals it produces and sells, but fails to disclose them to the public.



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