



Risk Communication of Per- and Polyfluoroalkyl Substances

Michigan Department of Environmental Quality

Background and Environmental Agency Program/Capacity

The Michigan Department of Environmental Quality (DEQ) is an independent agency tasked with environmental protection in the state. In November 2017, in response to statewide concern of per- and polyfluoroalkyl substances (PFAS), Michigan Governor Rick Snyder signed [Executive Directive 2017-4](#), establishing the Michigan PFAS Action Response Team (MPART). MPART forms a partnership among ten state agencies. Four departments—the DEQ, and the Departments of Health and Human Services (DHHS), Military and Veterans Affairs, and Agriculture and Rural Development—initially took primary leadership over the effort. The Departments of Licensing and Regulatory Affairs, Transportation, and Natural Resources subsequently took on more active roles. The team is tasked with establishing best practices that will enable stakeholders to comprehensively and swiftly mitigate PFAS. MPART strengthens DEQ's ability to communicate risks to different groups and demonstrate the state's dedication to tackling this group of contaminants.

As regulators of public water supplies in Michigan, DEQ has worked to address PFAS contamination at military sites for years. In the 1990s, [Wurtsmith Air Force Base](#) used PFAS-containing firefighting foam for trainings. The PFAS persisted, contaminating the groundwater in surrounding communities. More recently, DEQ became aware of contaminated water in residential drinking water wells north of Grand Rapids. Wolverine World Wide, a shoe company, used PFAS at its former tannery in Rockford to waterproof leather for shoe manufacturing. DEQ is unsure of the original source or number of years that PFAS was released but knows that industrial waste from the tannery was initially dumped in nearby unlined landfills. Initially, the state was not involved in the investigation. DEQ was, however, invited to town hall meetings in which the public was noticeably panicked and local officials were absent. This spurred much of what MPART now strives to do in terms of engaging various groups and communicating effectively.

Rollout and Dissemination of Advisory and Relevant Resources

[MPART](#) was developed to address PFAS contamination found across the state. Although each agency involved in MPART has its own communication team, they communicate regularly to ensure connectivity across the departments.

DEQ identifies four major outlets for communicating risks that are important and varied. They are outlined below.

Legislatures

DEQ notes the importance of providing adequate information to legislators to support their decision-making. Providing data on the extent of PFAS contamination and the expected costs to address it allows legislatures to answer public questions and make decisions about the use of taxpayer money. To meet legislator's needs, DEQ engages in personal meetings and provides data to support ongoing contamination research. Communications include updates on PFAS levels at contaminated sites, resources needed to mitigate the contamination, and efforts to communicate risks to MPART agencies and the public.

As a result, in late 2017, the state appropriated \$23.2 million to address PFAS, allocating funds for response activities, remediation, local public health and laboratory equipment, and full-time equivalent employees' salaries.

In February 2018, Governor Snyder proposed the state's 2019 fiscal year budget to include another \$8 million to address PFAS.

State Staff

DEQ staff (and those of other state agencies in MPART) also need briefings on PFAS contamination and its associated risks. The primary focus of communications to staff is on the need to coordinate with others. As state public water supply regulators, DEQ worked with toxicology staff in DHHS to compile a risk communication message that embodies the philosophy that environmental issues are also health issues.

The agencies are typically reactive to many issues but since PFAS is an emerging science, they developed a risk communication response at the front end. DEQ and DHHS set up a responsive statewide team that collaborates on a message, knows one another's information (and can give presentations for those at the other agency), and designates specific responsibilities to each department. Testing for PFAS contamination is completed at the Michigan Department of Health and Human Services laboratory and private contractor laboratories and data are relayed to the agencies in MPART. The tandem effort aligns activities and allows for faster and more effective communications. Staff rely heavily on their partnerships and value cooperative work to protect public health and the environment.

Media

When communicating information about PFAS contamination and risks to the media, DEQ takes a delicate approach. DEQ noted that events such as the lead contamination in Flint's drinking water linger in the news. With press regularly requesting new data or story angles, DEQ staff need to provide thoughtful responses. Although the easy answer to media questions is "I don't know," DEQ emphasizes the importance of providing a clear, calm message that includes the information that is available.

Public

Communicating to the public about PFAS presents a unique set of challenges. To concerned citizens, these risks are very personal. They are associated with the water they drink and the land they live on, so DEQ notes the importance of empathizing and taking a narrow approach that focuses on the affected community. Successful messaging tactics include:

- Weekly communications through all outlets (email, web, conference calls, town meetings, and briefings with all key stakeholders).
- A [website](#) where the public can find out more information about PFAS contamination and the efforts to mitigate it.
- Consistent messaging across all agencies that contains information about the contaminant and health actions rather than regulatory information.
- Personalized communications so residents are comforted, confident, and understand the state of Michigan's vested interest. The issue is personal, so DEQ must treat it as such.
- Open and honest communication. While no one is happy when DEQ does not have an answer, the best answers involve responses to the effect of "we do not know a lot but here is what we do know and this is what we will do."
- Door-to-door communications. Send staff to homes in affected communities to answer questions and to prevent the public from drinking unhealthy water.
- Pre-meeting planning and involvement of local officials. DEQ works in conjunction with the military, DHHS, local cities, townships, and other departments to hold a meeting prior to town hall meetings in which they discuss responses to potential questions. These meetings are time-consuming and require the involvement of several staff members. The public is cognizant of this and appreciative of the retail-level treatment.
- Involvement of local district staff. While DEQ notes the importance of working at the state and legislative levels, local officials are usually more trusted and equally as vital to successful communication. Meet with local officials early and often, and establish close relationships.

Gaps and Challenges

Michigan has learned some of the following lessons on how to close the gaps in information and address challenges in communicating with the public:

- Use caution in social media. Social media can make controlling the flow of credible information difficult and can cause public panic.
- Do not use a website as the main communication tool but instead work with district staff to share information with the public.
- Be cautious in the use of health advisories. Do not set a “safe” level of PFAS in drinking water and then be forced to change that value as research evolves.
- Educate the public on what PFAS is. Unlike lead, PFAS is a chronic issue. However, residents often do not understand the difference between acute and chronic exposure.
- Strive to overdeliver. Citizens now have a higher expectation of coordinating entities, increasing the need to keep the public aware of issues in their communities.