

# Contaminants of Emerging Concern (CEC) Project Inventory

## DRINKING WATER PROTECTION (DWP) SECTION

### Background

The Minnesota Department of Health (MDH) enforces the federal Safe Drinking Water Act. Safe Drinking Water Act standards and treatment techniques protect public health by limiting the levels of contaminants in drinking water. Under the Safe Drinking Water Act, U.S. Environmental Protection Agency has established drinking water quality standards for approximately 100 contaminants. These standards are enforceable limits for water delivered by public water systems.

Thousands of other chemicals are used in our modern, industrial world. Some end up in the environment and in drinking water sources. These contaminants are often called contaminants of emerging concern, or CECs. A workgroup convened by the Association of Clean Water Administrators and the Association of State Drinking Water Administrators defined a CEC as:

- a contaminant that has been newly discovered in the environment; or
- a contaminant that has been known for a long time but is generating interest due to new scientific information about its impacts on public health or the environment.

CECs are often unregulated or are regulated at a level that may no longer be considered adequately protective of human health. CECs may be naturally occurring and/or man-made.

MDH has several monitoring, policy, and communications projects to address CECs in drinking water, which are described below. For more information about these projects, contact the Drinking Water Protection Program at [health.drinkingwater@state.mn.us](mailto:health.drinkingwater@state.mn.us) or 651-201-4700.

## Summary of CEC monitoring projects

Project name	Description
<p>Drinking Water Ambient Monitoring Program</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH is creating a new program to proactively test for CECs and other priority contaminants in drinking water sources.</li> <li>▪ <b>Project scope/participants:</b> The program will sample aquifers, rivers, lakes, and other waterbodies that supply drinking water to communities and private well users.</li> <li>▪ <b>Status:</b> In progress</li> </ul>
<p>EPA Unregulated Contaminant Monitoring Rule</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> Every five years, the EPA implements the Unregulated Contaminant Monitoring Rule (UCMR). The purpose of UCMR is to collect data from across the country on unregulated contaminants that may be present in drinking water.</li> <li>▪ <b>Project scope/participants:</b> For the current round, all public water systems (PWSs) serving more than 3,300 people and some systems serving 3,300 or fewer people</li> <li>▪ <b>Status:</b> UCMR5 started in January 2023 and sampling will continue through the end of 2025.</li> </ul>
<p>Unregulated Contaminant Monitoring Project</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> In this project, MDH tested for unregulated contaminants in drinking water sources across the state. The project was funded by the Environment and Natural Resources Trust Fund and received additional funding from the Clean Water Fund.</li> <li>▪ <b>Project scope/participants:</b> Approximately 100 CWSs</li> <li>▪ <b>Status:</b> Completed; data summary report will be released in early 2023</li> </ul>
<p>Manganese Response Plan Sampling</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH is sampling for manganese at CWSs that have past monitoring results above 90 µg/L to determine which systems exceed the health-based guidance value (HBGV) of 100 µg/L.</li> <li>▪ <b>Project scope/participants:</b> Approximately 200 CWSs</li> <li>▪ <b>Status:</b> Completed</li> </ul>

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Project name	Description
Manganese Action Plan Sampling	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH is sampling for manganese at NWSs serving vulnerable populations to determine which systems exceed the health-based guidance value (HBGV) of 100 µg/L.</li> <li>▪ <b>Project scope/participants:</b> Approximately 40 daycares and 100 schools</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>
Statewide PFAS Monitoring	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> Funding from the EPA and Clean Water Fund enabled PFAS sampling across the state.</li> <li>▪ <b>Project scope/participants:</b> All CWSs and select noncommunity water systems (NWSs)</li> <li>▪ <b>Status:</b> Sampling will be completed in early 2023</li> </ul>
Microplastics Sampling	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> In 2019, the Minnesota Legislature appropriated Clean Water Funds to MDH to sample surface water, groundwater, and drinking water sources for microplastics and nanoplastics. The project monitoring plan is complete but implementation of the monitoring plan is deferred indefinitely.</li> <li>▪ <b>Project scope/participants:</b> Approximately 40 total CWSs and NWSs using groundwater and surface water</li> <li>▪ <b>Project status:</b> Ongoing</li> </ul>
Pathogen Project	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> The Pathogen Project is a study to understand sources and pathways of pathogen contamination in groundwater.</li> <li>▪ <b>Project scope/participants:</b> Four CWSs and NWSs that participated in earlier phases of the project</li> <li>▪ <b>Project status:</b> Completed</li> </ul>
Pesticide Sampling	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH is working with Minnesota Department of Agriculture (MDA) to sample public water systems (PWSs) for cyanazine and degradates based on nearby agricultural activities. The scope of this project may expand in the future as MDA increases their monitoring.</li> <li>▪ <b>Project scope/participants:</b> Currently 1 CWSs and approximately 15 NWSs</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>

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Project name	Description
<p>PFAS Response Monitoring</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH has been monitoring systems with PFAS detections since 2006. MDH has conducted ongoing sampling at CWSs in the East Metro and near aqueous film-forming foam (AFFF) sites. MDH has sampled other CWSs for PFAS in conjunction with their routine monitoring schedules that are not in the East Metro or near AFFF sites.</li> <li>▪ <b>Project scope/participants:</b> Approximately 50 CWSs and several NWSs</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>
<p>Priority 1, 2, 3 Monitoring</p>	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH maintains the Priority 1, 2, 3, List, a list of PWSs where contaminants were detected near or above a health-based advisory level at the entry point. MDH updates the list twice a year. MDH, MPCA, and MDA use the list to inform additional monitoring at PWSs potentially impacted by industrial or manmade contaminants.</li> <li>▪ <b>Project scope/participants:</b> CWSs and NWSs</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>

## Summary of CEC policy and communications projects

Project name	Description
EPA MP Grant Management	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> This project will conduct monitoring based on PFAS source inventories conducted by the Minnesota Pollution Control Agency (MPCA).</li> <li>▪ <b>Project scope/participants:</b> CWSs near sites with PFAS detections</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>
CEC Framework	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> The CEC Framework provides an action plan that DWP staff can use as guidance when CECs are detected at PWSs. The Framework defines Drinking Water Advisory Levels for CECs that DWP will use to issue Health Advisories.</li> <li>▪ <b>Project scope/participants:</b> The DWP Community Unit began implementing the CEC Framework in CWSs in 2020.</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>
Manganese Response Plan	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> The Manganese Response Plan outlines how DWP will address manganese at CWSs to protect public health. Past manganese sampling results indicate that some CWSs may have levels of manganese that exceed EPA and/or MDH HBGVs.</li> <li>▪ <b>Project scope/participants:</b> The DWP Community Unit uses this plan to sample for manganese at CWSs and to communicate about results.</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>

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Project name	Description
CEC Stakeholder Engagement	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH contracted Management Analysis &amp; Development (MAD) to conduct interviews and surveys with CWSs. The goal of this project was to learn about CWSs’ experiences, perspectives, and concerns regarding CECs and potential strategies.</li> <li>▪ <b>Project scope/participants:</b> Fourteen CWSs participated in interviews with MAD. A second phase was planned to survey CWSs statewide but was deferred due to COVID.</li> <li>▪ <b>Status:</b> Completed</li> </ul>
CEC Project Inventory	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> This document serves as an inventory of CEC-related activities in DWP.</li> <li>▪ <b>Project scope/participants:</b> This document summarizes all monitoring, policy, and communications activities surrounding CECs in DWP.</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>
University of Minnesota Collaboration	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH is supporting research projects by University of Minnesota researchers. These include research on N-Nitrosodimethylamine (NDMA) precursors and, in buildings temporarily vacated due to COVID-19, the effects of stagnant water in premise plumbing on drinking water quality.</li> <li>▪ <b>Project scope/participants:</b> University researchers are working with a small number of PWSs.</li> <li>▪ <b>Status:</b> Completed</li> </ul>

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Project name	Description
Legionella Coordination	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> MDH has created a plan for coordinated response to legionellosis outbreaks in Minnesota. This plan is incorporated into existing outbreak response protocols in the MDH Infectious Disease Epidemiology, Prevention and Control (IDEPC) Division and Environmental Health (EH) Division.</li> <li>▪ <b>Project scope/participants:</b> The plan defines participant roles and outline external communications. Coordination takes place across the following programs: MDH DWP Section; MDH Food, Pools, and Lodging Services (FPLS) Section; MDH IDEPC Division; Department of Labor and Industry (DLI); and MDH Health Regulation Division (HRD).</li> <li>▪ <b>Status:</b> Completed</li> </ul>
PFAS Communications	<ul style="list-style-type: none"> <li>▪ <b>About the project:</b> DWP shares information about PFAS in drinking water through the <a href="#">Interactive Dashboard for PFAS in Drinking Water</a> as well as info sheets, webpages, and other resources.</li> <li>▪ <b>Project scope/participants:</b> The dashboard and supporting materials summarize PFAS testing for all CWSs.</li> <li>▪ <b>Status:</b> Ongoing</li> </ul>

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2/2023

To obtain this information in a different format, call: 651-201-4700.