

Minnesota 3M PFC Settlement

Notes for Special Session Combined Priority 2 Working Group Meeting

Wednesday, June 21, 2023

9:00 a.m. – 11:00 a.m.

Virtual Teams meeting

Combined working group members in attendance

- Amy Siqveland
- Howard Markus
- Jamie Wallerstedt
- Jill Trescott
- Kirk Koudelka
- Kristin Seaman
- Melissa Kuskie
- Randall Clary
- Steve Dibb
- Tony Manzara

Presenters

- Susan Johnson, Minnesota Pollution Control Agency (MPCA)
- Debra Fleischer, Abt Associates
- Heather Hosterman, Abt Associates
- Leland Moss, Abt Associates
- Andrew McFadden, Abt Associates

Welcome

Debra Fleischer (Abt Associates) opened the special session work group meeting. Melissa Kuskie (Minnesota Department of Natural Resources; DNR) welcomed work group members to the special session. She appreciated that work group members had requested the special session and are engaged in seeking additional background information about the 2018 3M Settlement and activities preceding Priority 2.

Settlement Overview

Susan Johnson (MPCA) provided an overview of the actions leading up to the Settlement and the terms of the Settlement. She started by reviewing background information on per- and polyfluoroalkyl substances (PFAS). 3M developed PFAS compounds in the 1940s, and they have since been used in many products and processes. PFAS is extremely resistant to breakdown and very mobile in the environment. There are more than 5,000 PFAS compounds in existence. Studies by health experts, academia, and governmental agencies are ongoing to expand our understanding of the adverse impacts of PFAS to human health and wildlife.

The Minnesota Department of Health (MDH), and the U.S. Environmental Protection Agency (EPA), set health benchmarks for human exposure to PFAS. The goal of health benchmarks is to keep a person's total exposure below toxic thresholds. For PFAS, exposure routes of concern include exposure through drinking water, fish consumption, other food consumption, exposure from breastmilk or formula, or exposure from air.

Susan noted that MDH has completed health assessments for six PFAS compounds: PFOS, PFOA, PFHxS, PFBA, PFBS, and PFHxA. For these six compounds, effects observed include immune suppression, developmental effects, reproductive effects, changes in thyroid hormone levels, liver effects, and potential carcinogenicity (PFOA). Most PFAS compounds do not have sufficient toxicity data to derive health benchmarks.

Susan explained that PFAS impacts to wildlife are of particular concern because once released into the environment, PFAS tends to be retained in water and sediments, does not biodegrade in environmental conditions (“forever chemicals”), and tends to bioaccumulate.

Susan then addressed findings of previous studies showing impacts to wildlife. Past studies, some of which were conducted in the East Metro area, have found that wildlife exposed to PFAS have adverse effects. More recent studies on the Project 1007 area have identified the following wildlife as most vulnerable to PFAS effects: fish; wildlife that consume fish; and wildlife that consume aquatic insects. Because PFAS is very soluble in water, aquatic-dependent species are most vulnerable to adverse effects.

Susan described some recent findings from the ecological risk assessment in the Project 1007 area, which is adjacent to two source areas in the East Metro. Key findings include that much wildlife in the East Metro is likely exposed to PFAS; that the areas with adverse impacts to wildlife are generally depositional areas such as wetlands, lakes, and ponds; that aquatic-dependent species experience greater impacts; and that although impacts decrease for some species with increased distance from source areas, vulnerability remains for fish-eating species.

Susan then discussed actions that led to several agreements with 3M. She first explained that PFAS contamination is traced to four sites where 3M disposed of PFAS waste over many years: the 3M Cottage Grove Site, the 3M Oakdale Site, the 3M Woodbury Site, and the Washington County Landfill. Susan then provided a brief history of PFAS in the East Metro area; key milestones include the 2007 Consent Order between MPCA and 3M outlining what 3M is responsible for under state Superfund (remediation program), and the 2018 settlement agreement between 3M and the State on the Natural Resources Damage lawsuit for \$850 million.

Susan further explained that 3M and the State have several agreements governing 3M’s remedial work and the State’s work as Co-Trustees. 3M’s remedial work involves multiple agreements to deal with both non-PFAS and PFAS contamination, and is overseen by the state Superfund program. Early agreements (1980s) address non-PFAS contamination, while later agreements (2007, 2018) specifically address PFAS contamination. The State entered into the PFAS-specific natural resource damage assessment (NRDA) agreement and settlement with 3M in 2018; this is overseen by MPCA and DNR as Co-Trustees.

The 2007 Consent Order relates specifically to PFAS. Under this Consent Order, 3M agreed to implement cleanup actions at 3M disposal sites; reimburse the State to sample public and private drinking wells, including providing alternative sources of drinking water when wells test over health-based values; provide an \$8 million grant to the MPCA to help remediate the Washington County Landfill; and provide a \$5 million grant to the MPCA for environmental studies on PFAS impacts not related to 3M disposal sites. The Settlement and Consent Order can be found here: <https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX2576.pdf>.

Susan then reviewed the difference between remediation and NRDA. 3M is responsible for cleaning up contaminated areas to manage exposure and risk to human health and the environment. The remediation process includes assessments and cleanup actions, with the outcome of protecting human health and the

environment. In contrast, NRDA looks at harm done to natural resources and at lost services provided by natural resources due to the contamination. It seeks compensation for the public for harm to natural resources over time in the form of projects or funds to do projects, with the outcome of making the public whole.

In 2008, the Co-Trustees looked at injuries and losses of natural resources through a separate process from remediation. 3M chose not to participate in the injury assessment activities. The Statute of Limitations for NRDA actions ended on December 31, 2010, and since the State and 3M had not reached an agreement on compensation, the State filed a lawsuit to seek compensation in court. The complaint laid out claims relating to environmental damages under MERLA (the state Superfund law), the state Water Pollution Act, trespass, nuisance, and negligence. The complaint also summarized findings to date, including that groundwater contamination covers more than 150 square miles, affecting the drinking water supplies of over 174,000 Minnesotans; that 120 miles of the Mississippi River are contaminated with PFAS; and that there were fish consumption advisories issued by MDH.

The State and outside counsel gathered available evidence and studies that supported the State's claims regarding injury to natural resources, but did not conduct any additional studies. Expert opinions collected in preparation for the trial can be found online: <https://www.ag.state.mn.us/Office/Cases/3M/StatesExhibits.asp>. The State found evidence of potential injury, using available data and reasonable assumptions, for the following injuries and lost services: groundwater as providing drinking water; groundwater aquifer sustainability (increased demand on less contaminated aquifers); recreational fishing; and wildlife and their habitats including surface water and sediments.

On February 20, 2018, the State and 3M came to an agreement. 3M provided a grant to the state for \$850 million, which was immediately available to provide long-term solutions in the East Metro area for safe and sustainable drinking water and for restoration and enhancement of natural resources (with at least \$20 million set aside for the latter). The agreement includes limitations on how the grant can be used; sets expectations for affected communities to participate in project identification; and preserves 3M's obligations under the 2007 Consent Order. Immediate drinking water needs were being taken care of right away under the Consent Order.

The Settlement included overall objectives for funding projects to ensure long-term solutions. Priority 1 goals are related to enhancing services provided by groundwater to ensure safe drinking water in sufficient supply to residents and businesses to meet their current and future water needs. The Settlement also states how drinking water quality will be defined, and prioritizes water supplies where health-based values, health risk limits, and/or health risk indices for PFAS are exceeded to receive long-term solutions using grant funding.

Under the Settlement, the 2007 Consent Order is still in place. As planning for long-term solutions was occurring, 3M agreed to pay for short-term drinking water needs for five years or up to \$40 million. Once Settlement funds are depleted, 3M will also pay for appropriate long-term drinking water solutions per the Consent Order. Additionally, Settlement funds will be used to assess Raleigh Creek area as a source of PFAS to the Valley Branch Project 1007 area and determine if remedial actions are needed. Progress to date on this work can be found online: <https://3msettlement.state.mn.us/projects/project-1007>.

Susan then described the Priority 2 component of the Settlement, under which work could begin once Priority 1 goals were reasonably met. The Settlement made \$20 million available immediately for Priority 2, with the potential for more funding if Priority 1 goals are reached and funds remain (this is yet to be determined). Priority

2 is intended to fund projects that restore and enhance ecosystem services and outdoor recreational opportunities in the East Metropolitan Area and in downstream areas of the Mississippi and St. Croix Rivers.

Susan then reviewed several additional terms of the Settlement, including the release of 3M from further PFAS-related NRDA claims from 3M disposal sites; the inclusion of a third priority for funds to be used for statewide projects after Priority 1 and Priority 2 goals are reasonably met; the requirement that a “Working Group” be used to identify and recommend projects; and the allowance for technical experts to be retained using Settlement funds to assist with implementation. Priority 2 working group membership is determined by the Co-Trustees as this was not stipulated in the Settlement, and includes additional communities beyond those included in Priority 1.

Susan concluded by presenting a breakdown of the Settlement funds. Of the \$850 million grant to the State, \$130 was used for past settlement costs (such as legal costs for outside counsel and past remedial costs), and \$720 remained for projects that are reasonable and necessary to achieve settlement goals.

Feedback

One work group member asked if additional explanation could be provided about the statewide projects. Susan stated that as part of the 2018 Settlement, there was an option for Priority 3, under which funds could be used for statewide PFAS projects. However, the goals for Priority 1 and Priority 2 should be reasonably met before turning to Priority 3. At this time, no funds have been set aside for Priority 3.

Priority 1 Approach

Heather Hosterman (Abt Associates) described the Priority 1 approach. Because PFAS contaminated domestic water supplies in several East Metro communities, grant funds under Priority 1 include long-term drinking water solutions that provide safe and sustainable drinking water. Grant funds under Priority 1 can also support groundwater sustainability, which could include projects focused on promoting water conservation or acquiring open spaces that help recharge drinking water sources more quickly.

Heather noted the four Priority 1 goals, which were developed by the Co-Trustees with working group input:

- Provide clean drinking water to residents and businesses to meet current and future needs under changing conditions, population, and health-based values
- Protect and improve groundwater quality
- Protect and maintain groundwater quantity
- Minimize long-term cost burdens for communities

Heather then described the Priority 1 planning effort. Using the goals, the Co-Trustees developed a Conceptual Plan to detail how Settlement funds would be used to ensure safe and sustainable drinking water in the East Metro. This planning process aimed to understand the drinking water needs of each affected community. Priority 1 projects were driven by community drinking water needs, and therefore only communities and counties could apply for funding.

Heather explained that engagement with East Metro communities was achieved through a working group structure that included residents, businesses, local government, and elected officials. Working groups were similar in structure to those in Priority 2 but had some key differences. The coordinating State agency was MPCA

for Priority 1 (vs. DNR for Priority 2). The working group representatives for Priority 1 include more than 90 representatives of the 14 affected communities. Priority 1 has a Government/3M Work Group, a Citizen-Business Work Group, and a Drinking Water Supply Subgroup. The working groups focused on providing feedback on the drinking water needs of each community (a key difference compared to Priority 2), and they met more than 20 times between 2018 and 2021 (a longer timeframe than Priority 2).

Heather further explained that the Priority 1 planning process led to the Co-Trustees' release of the Conceptual Plan in August 2021. The Plan is a comprehensive approach that covers impacted private and municipal well users for all 14 communities, and addresses contaminated tap water as well as contaminated groundwater. The Plan also provides safe drinking water by meeting health-based values now and into the future; creates resiliency through treatment that proactively addresses potential changes to health-based values or to PFAS levels in drinking water sources; and provides flexibility in funding to meet individual community needs.

Heather noted that the Plan allocated most of the available funding to three main priorities: capital funding costs (used to construct and install drinking water supply infrastructure); operation and maintenance for public water systems and private well treatment systems; and drinking water protection (used to improve drinking water quality at the source). In addition to these priorities, some funding is reserved as contingency for future treatment needs, and some is set aside for state administration. Since the release of the Conceptual Plan, the State has made progress in implementing the capital projects that were identified in the Plan.

Feedback

One work group member requested access to the map tracking Conceptual Plan implementation progress, which can be found online: <https://3msettlement.state.mn.us/projects/investing-east-metro-drinking-water>.

Priority 2 Approach

Leland Moss (Abt Associates) described the Priority 2 approach. Leland shared the most recent draft of the Priority 2 goals, which were developed by the Co-Trustees and refined with input from agency staff and working groups. Leland noted the goals are intended to be high-level targets; more specific, measurable components will be incorporated into the evaluation criteria that the Co-Trustees will use to evaluate projects submitted through the request for proposal (RFP) process. The types of projects that will be eligible will be further discussed in future work group meetings as part of the RFP scoping process. The draft goals are:

- Restore, protect, and enhance aquatic and terrestrial resources, wildlife, and habitats (example projects: land protection, habitat restoration, nesting improvements, and surface water quality improvements)
- Increase understanding of fish tissue contamination, improve communication about PFAS-based fish consumption advisories, and identify and enhance alternative, non-contaminated fishing areas (example projects: sampling fish tissue in surface water and public communications about fish consumption advisories)
- Improve and enhance outdoor recreational opportunities and access for the public, including populations experiencing inequities and/or disparities (example projects: constructing accessible boat launches, accessible trails, bird watching platforms, etc. with a focus on underserved areas)

Leland explained the Priority 2 funding approach. Because funding is limited, the Co-Trustees want to identify the best projects to meet the goals of Priority 2. Thus, grant funds for projects will be available via a competitive solicitation process. The Co-Trustees will lead the RFP development and will request work group feedback. The solicitation will be open to anyone who can propose and implement a project (not limited to work group participants), and collaboration is encouraged. Considerations for the RFP will continue to be discussed, and one key consideration is inclusiveness and disadvantaged and diverse populations.

Leland noted that the Priority 2 structure is similar to Priority 1, but with a few differences. For Priority 2, the focus is on restoring and enhancing natural resources and recreational opportunities. Priority 2 work group members mainly provide feedback on goals, evaluation criteria, and the RFP solicitation scope and language—as opposed to identifying community projects as in Priority 1. Priority 2 also has a technical Subgroup, which will focus on technical background information and natural resource planning efforts to inform Priority 2. The Subgroup will not meet as a full group; information will be solicited through emails and individual meetings as necessary. In addition, the overall timeframe for Priority 2 is shorter than that for Priority 1. The goal is to release the RFP in early 2024.

Leland shared information about upcoming work group meetings:

- The second meeting will include reviewing feedback from the first meeting, finalizing the goals, and considering how to handle the issue of potential PFAS contamination at proposed project sites.
- The third meeting will likely continue to focus on how to consider PFAS contamination during proposal reviews, as well as draft project screening and evaluation criteria.
- The fourth meeting will include finalizing the project screening and evaluation criteria, finalizing how to consider PFAS contamination during proposal reviews, and introducing draft RFP scope and language.
- The fifth meeting will include finalizing the RFP scope and language.

Feedback

There were no comments or questions from work group members at this time.

Preview of July Meeting

Andrew McFadden (Abt Associates) provided a preview of content to be covered during the July work group meeting, regarding PFAS data and natural resource injury extent as well as the use of that information in the context of Priority 2 project evaluation. He first explained that to understand natural resource injury extent from PFAS, multiple reports and other data sources have been utilized including Project 1007 data, fish tissue consumption advisories, injury assessment documents, and ongoing MPCA assessments and sampling. These sources focus on sediment, surface water, and fish tissue (and not on groundwater, the focus of Priority 1).

Andrew described the approach to identifying impacts to natural resources and recreational opportunities. The Co-Trustees assessed available lines of evidence including PFAS contamination pathways (groundwater, surface water, sediment, biota), PFOS-impaired waters (a state designation), and fish consumption PFOS advisories (indicative of recreational service loss harm). The focus was on contamination related to releases from 3M, while remaining cognizant of other potential PFAS sources.

Andrew reviewed PFAS source areas and water bodies with evidence of PFAS impacts, including lakes and streams in the East Metro area, the Mississippi River, and the St. Croix River. These impacts are largely related to

contamination from the disposal sites via groundwater-surface water interactions. Other PFAS sources also contribute, particularly to the rivers. He noted that not all water bodies in the area have been sampled.

Andrew also reviewed available surface water, sediment, and tissue sampling data by year. Sampling in Pool 2 of the Mississippi River was conducted early on, while the Project 1007 area has more recent sampling and ongoing studies. Coverage of samples is variable across space, and there are large geographic areas without PFAS concentration data. Coverage of samples is also variable across time, which can complicate analyses because detection limits for PFAS compounds have decreased over time.

Finally, Andrew gave a brief overview of how PFAS data may be used in Priority 2 project review. It is one of multiple criteria that will be used to assess projects. A review of existing data will be used only when deemed necessary given the context of the proposed project (not all project types may be sensitive to PFAS contamination). And all available data will be assessed to understand potential contamination implications using a weight of evidence approach.

Feedback

One work group member asked whether there are plans to do sampling in water bodies or locations that haven't been sampled yet. Kirk Koudelka (MPCA) responded that there is nothing in the Settlement at this point that has additional sampling specific to the East Metro area, so this would need to be part of broader MDH/MPCA/DNR sampling for the state. Those plans are still under development (and have received additional funds to expand sampling efforts), but the goal is to do more sampling statewide. Andrew added that sampling may be involved in proposed projects.

One work group member stated that the testing done on fish has largely measured contaminants in fish tissue and how that relates to human consumption. They asked whether any work has been done on the impacts to fish populations themselves (e.g., fish health, reproductive health). Andrew responded that there is ongoing toxicity work to understand population-level effects to fish from acute or chronic PFAS exposure. He noted that the concentrations at which population-level impacts are fairly high—beyond the levels at which concerns arise for human consumption. It is a topic of ongoing research, but there are available thresholds for particular compounds where you could expect to see population-level or health impacts on fish.

One work group member asked whether there is a comprehensive list of reports that detail the results of testing fish tissue and surface water in the East Metro area. Andrew noted that the Project 1007 website contains a lot of data and reports, and Marina Steiner (MPCA) provided the following resources:

<https://3msettlement.state.mn.us/sites/3msettlement/files/2023-02/baseline-eco-risk-assessment-october-2021.pdf> and <https://3msettlement.state.mn.us/projects/project-1007>. Kirk Koudelka added that they would need to work with other departments as the efforts are statewide, and that the Co-Trustees can provide a list of surface waters that have been sampled.

One work group member asked about upcoming work group meeting dates. Susan Johnson responded that she would re-send her previous email with this information. Generally, the meetings occur every other month, with the next one scheduled for July 19th.

Public comments and questions

There were no public comments or questions at this time.