

Minnesota 3M PFAS Settlement

Notes for Combined Working Group Meeting

Wednesday, May 20, 2026

9 a.m. – 11:30 a.m.

Hybrid Teams and in-person meeting

Combined working group members in attendance

- Christina Volkers
- Clark Schroeder
- Cory Tietz
- Dan Wietecha
- Karie Blomquist
- Katie Smith
- Kirk Koudelka
- Laurie Elliott
- Mark Jenkins
- Mark Statz
- Mary van Milligen
- Michael Madigan
- Monica Stiglich
- Nicole Miller
- Pam Anderson
- Ron Moore
- Ryan Burfeind
- Ryan Stempski
- Stephanie Souter
- Tony Brinkman

Presenters

- Kirk Koudelka, Minnesota Pollution Control Agency (MPCA)
- Katie Smith, Minnesota Department of Natural Resources (DNR)
- Rebecca Place, MPCA
- Debra Fleischer, Abt Global
- Emma Glidden-Lyon, Abt Global
- Hanna Temme, AECOM

Welcome

Debbie Fleischer (Abt Global) opened the work group meeting by walking through the hybrid meeting logistics, conducting rollcall for work group members, and discussing the meeting agenda. Kirk Koudelka (MPCA) introduced Katie Smith (Assistant Commissioner, DNR) as the new DNR representative for the Co-Trustees, replacing Jess Richards. Mr. Koudelka also gave an update on community and neighborhood projects. Treatment facilities are under construction in Cottage Grove, Woodbury, Hastings, and Lake Elmo. Feasibility, planning, and design work continues in Oakdale, Eagles Watch, Cimarron Park, and Newport. Mr. Koudelka mentioned the online resource that displays Priority 1 metrics, including the progress of private well work. Mr. Koudelka also discussed the private well sampling annual report released each spring.

Update on Project 1007

Hanna Temme (AECOM) presented an update on the Project 1007 Feasibility Study that was just released. Project 1007 is a stormwater conveyance system constructed to address flooding in the Tri-Lakes area. The conveyance system is connected to the Oakdale Disposal Site (ODS) and the Washington County Landfill (WCL), which both contain PFAS. Due to these connections, the Project 1007 conveyance system has high concentrations of PFAS.

Ms. Temme discussed the key Remedial Investigation findings. PFAS is migrating throughout the East Metro via the following pathways: surface water, surface water and sediment cycling, surface water infiltration to

groundwater, groundwater discharge to surface water, and groundwater migration. To address the PFAS contamination, these pathways must be stopped.

Ms. Temme showed a diagram of multiple migration pathways and emphasized that the Project 1007 conveyance system has resulted in more widespread groundwater impacts. Ms. Temme also presented a map with the PFOS concentrations throughout the northern part of the East Metro. High concentrations of PFOS track with the Project 1007 conveyance system.

This Feasibility Study is a recommendation and only one part of the Superfund remediation process. The goal of this Feasibility Study was to look at all possible alternatives to reduce the PFAS contamination in drinking water aquifers in the East Metro, reduce the spread of PFAS in surface water and groundwater, and provide long-term protection to drinking water supplies.

The first step of the Feasibility Study was to analyze the information from the Remedial Investigation and determine where PFAS is and how it migrated there. The second step was to divide the site into specific focus areas based on migration pathways and location of PFAS. The third step was to develop remediation objectives or goals for treatment. The fourth step was to develop potential alternatives. The fifth step was to evaluate those alternatives with set criteria. The final step was to provide a recommendation.

The drinking water treatment plans outlined in the Conceptual Drinking Water Supply Plan (CDWSP) were used as the baseline of this Feasibility Study. The CDWSP's focus was on providing safe drinking water and not remediation. In this baseline scenario (i.e., drinking water treatment only), groundwater with high concentrations of PFAS would continue to migrate. Communities already impacted would see higher drinking water treatment costs, and additional communities and homes may require treatment. Changing pumping conditions can also change migration pathways.

The Feasibility Study provided a primary and a secondary recommendation. Both alternatives include source zone control, in-stream treatment, and sediment access restrictions. The primary recommendation would use a single, regional Multi Benefit Well Array (MBWA). The secondary recommendation would use a localized MBWA in Lake Elmo and a separate pump and treat in West Lakeland, in addition to relying on the Oakdale municipal supply wells. The primary recommendation has the best overall plume capture, but it is more expensive and would require more community coordination. The secondary recommendation is less expensive.

There are two active source areas: ODS and WCL. ODS currently has shallow groundwater treatment and active off-site migration. However, the treatment is not completely effective at controlling groundwater migration. Additional treatment at ODS would be managed through the Superfund program. WCL was lined in 2008-2011, so the waste disposed of in that landfill is not leaching into the groundwater. However, PFAS leached from the waste prior to lining, and there is active off-site migration. The Feasibility Study recommends a localized pump and treat system to address this.

Regarding surface water, the Feasibility Study proposes in-stream permeable adsorptive barriers (PABs) in Raleigh Creek and downgradient of Lake Elmo. A PAB is a filter that can absorb PFAS as water flows through it.

The Feasibility Study recommends restricting public exposure to impacted sediment. There are no recommendations to remediate sediment at this time due to its expense and the uncertain impacts of rerouting Raleigh Creek, but sediment would continue to be monitored.

Ms. Temme presented a conceptual map of the primary recommendation MBWA. It would include a series of extraction wells placed in areas of high concentration throughout Oakdale, Lake Elmo, and West Lakeland.

Treatment plants in Lake Elmo and Oakdale would treat the water to a drinking water standard and distribute water to their respective communities, and the remaining water would be injected to the Jordan aquifer.

Ms. Temme presented a map of the secondary recommendation, described previously. In West Lakeland, all remaining water would be injected to the Jordan aquifer (treated to a drinking water standard).

Ms. Temme compared a MBWA with non-drinking water pump and treat:

MBWA:

- Higher capital cost.
- More direct management over plume migration.
- Allow water to be used for drinking and plume control.
- Requires coordination between a new administrative body and municipalities for implementation and operations.
- Requires NSF 61 Certification.

Pump and treat:

- Lower individual cost but duplicative efforts.
- Requires communities to work together to maintain plume control and adjust in response to changes in pumping.
- Water treated to drinking water standards but may be re-injected to a place that is not at a drinking water standard.
- New administrative body could operate apart from municipalities to install and operate system.
- Does not require NSF 61 Certification.

The Feasibility Study also evaluated four different treatment technologies: foam fractionation, granulated activated carbon, ion exchange, and reverse osmosis. Additional pilot studies are required to better refine costs and understand treatment efficiency across the site. The selection of technology will greatly impact costs. Technologies with lower capital costs often have higher operating costs.

The estimated capital cost of only drinking water treatment (across Oakdale, Lake Elmo, and West Lakeland) is \$148 million to \$187 million, and the estimated yearly operating costs are \$4.2 million to \$8.3 million. For non-source zone treatment, the estimated capital cost of the primary recommendation is \$210 million to \$356 million, and the estimated yearly operating cost is \$10.8 million to \$39.8 million; the estimated capital cost of the secondary recommendation is \$181 million to \$308 million, and the estimated yearly operating cost is \$10.0 million to \$29.2 million. The estimated capital cost of source zone treatment for both the primary and secondary recommendations (WCL pump and treat) is \$17 million to \$49 million, and the estimated yearly operating cost is \$1.5 million to \$44.4 million.

This Feasibility Study focused on drinking water aquifers. A typical Feasibility Study would also address ecological receptors and other ways humans could be impacted by PFAS (such as fish consumption, swimming, contact with foam, contact with sediment).

Next steps may include addressing data gaps. Additional work would be needed in both source areas to better understand PFAS migration pathways. Addressing data gaps may also include additional delineation of the plume. After a remediation approach is selected, pilot scale testing may be done to evaluate specific treatment

technologies and refine cost estimates. Future testing may also be needed to understand the injection capacity of the Jordan aquifer.

Additional next steps for moving towards remediation will include working with stakeholders to finalize the remediation approach, coordinating with impacted communities to integrate existing infrastructure, developing a regional MBWA management strategy, and working with DNR to determine potential impacts to White Bear Lake.

Work Group Feedback

A work group member asked if the localized pump and treat system and the surface water and sediment recommendations are included in both the primary and secondary recommendations. Ms. Temme clarified that pump and treat at West Lakeland would depend on whether a MBWA is used or not. Source area treatment with a pump and treat at WCL is maintained in both the primary and secondary recommendations.

A work group member asked if the CDWSP covered the cost of the Feasibility Study and if money was also set aside to cover continuing efforts. MPCA confirmed that the Feasibility Study itself was required by the Settlement. The rest of the drinking water protection money is now being used for drinking water infrastructure and operations and maintenance (O&M). At this point the Settlement will not fund continuing efforts from the Feasibility Study, so funding will need to be discussed.

A work group member commented that a disproportionate amount of money is being put into WCL under the Closed Landfill Program when 100+ other landfills in the state have PFAS and asked if that type of money could help with this system. MPCA said the Closed Landfill Investment Fund is an option, but it depends on the project. Funding mechanisms are not yet finalized. MPCA agrees that the dollars must benefit the entire area.

A work group member asked if the 2007 Consent Decree is a possible funding source. MPCA said it is a possible funding source of the overall project.

A work group member asked what the goal of the injections is and why those locations were chosen. Ms. Temme said the goal is to prevent PFAS migration and to remove as much PFAS mass as possible. It would be difficult to go to the end of the plume. The goal is to have hydraulic control of the worst sections.

A work group member asked how to begin the conversation about Project 1007, the well interactions and pumping interactions, and impacts to individual communities. Ms. Temme said conversations have started with Oakdale and Lake Elmo about well placement and plume migration. Ms. Temme said MPCA can help coordinate these conversations.

A work group member asked if plume migration towards the north instead of south or east was considered. Ms. Temme said a modeling scenario analyzed what would happen if Oakdale and Lake Elmo switched to surface water. Regional groundwater flow is primarily to the east from Lake Elmo, and PFAS would not go against the natural groundwater gradient; additionally, there is a groundwater divide between Oakdale and Lake Elmo.

A work group member asked if the PFAS contamination in White Bear Lake, Lake Elmo, and Valley Creek is at a level where fish advisories have been issued. The work group member also asked if St. Croix has detectable PFAS contamination. Ms. Temme said they detected PFAS in the St. Croix right at the pipe outlet, but downstream it is similar to upgradient concentrations. PFAS was detected in the northern portion of Valley Creek. A few years ago, the south branch was mostly non-detect. MPCA said the Joint Fish Advisory Team receives all information and determines next steps, such as additional investigations or sampling.

A work group member commented that some of the well locations appear to be within the Lake Elmo Park Reserve and that there may be additional considerations or restrictions because of how the park reserve is set up and what is allowed. Ms. Temme said many community stakeholder conversations will need to take place, although she believes the well in question is on the park access road before the entrance to the park.

A work group member asked how the stream filters are effective. Ms. Temme said it is basically a filter. It is made of modified clay so water can quickly pass through it and keep up with the stream flow. It can be removed and the media replaced once it reaches capacity for PFAS. Surface water criteria likely will not be achieved through the filter, but it can absorb a lot of the PFAS mass.

A work group member asked for clarity on the timeline. MPCA said they are concentrated on the necessary steps more than a traditional timeline.

A work group member commented that in past meetings, it was shared that continued municipality pumping is necessary to keep the plume from migrating. Ms. Temme confirmed that large-scale groundwater pump and treat is required to control the plume, whether it is done by municipalities or a separate system.

A work group member asked if significantly more pump and treat would be needed if municipalities in the East Metro switched from groundwater to surface water. Ms. Temme said that with no municipal pumping, a pump and treat system would need to extract a different amount of water, as wells would be placed based on where the plume is. Ms. Temme said the modeling showed there might be some benefits from the MBWA to White Bear Lake depending on where the pumping wells get moved.

A work group member commented that they would be happy to discuss any future recommendations that would benefit the City of Woodbury residents.

Public comments and questions

A member of the public commented that the proposed injection wells in Woodbury will require public input before decisions are finalized.

A member of the public commented that the MPCA recently released its Draft 2026 Impaired Waters List. Several waterbodies are on the list for PFOS fish tissue (Beutel's Pond, Lake DeMontreville, Lake Elmo, Horseshoe Lake, Raleigh Creek, and the creek downstream of Horseshoe Lake). Ms. Temme said a fish study was a part of their investigation.

A member of the public asked if the Feasibility Study focused specifically on long-chain PFAS (PFOA and PFOS) or if the study looked at feasibility to address all PFAS, named and unnamed. Ms. Temme confirmed they focused on PFAS with drinking water standards. PFOS and PFOA were the main PFAS in exceedance. Ms. Temme looked at treatment for areas in the site that had shorter chain PFAS at high concentrations. Additionally, concentrations of PFBA in some pumping areas were at 5,000 ppt, and the current standard is 7,000 ppt. Standards could be lowered in the future, so PFBA was included in the cost. During the Remedial Investigation, samples for the broad group were comparable to the total named PFAS, suggesting there is not a large amount of unnamed PFAS at this site.

A member of the public asked where the river filtration technology has been deployed and asked for more details on the general effectiveness for removal, especially for longer chain PFAS at concentrations relevant to their community. Ms. Temme said it has been deployed at several Department of Defense (DOD) facilities, and it was recommended because it is more effective at long chains. It is a very low-cost solution.

A member of the public asked why drinking water equivalent from extraction wells can't be pumped directly into city wells. It seems like it would save the city a lot of money to get clean water without having to treat it themselves. Ms. Temme said that is the benefit of a MBWA versus a pump and treat that would be disconnected from municipal supply. The member of the public clarified their idea is to not have any injection wells and put that water directly into city drinking water wells. Ms. Temme said the Feasibility Study specifically looked at the needs of Oakdale and Lake Elmo. It looked at providing water to smaller communities (such as Prairie Island Indian Community and Cimarron Park) but did not look at Woodbury. Because of the conceptual nature of the recommendation, it is always something that can be considered in the future. Ms. Temme also noted that regardless, some pumped water would be leftover and need to be injected. MPCA clarified that injection wells can allow them to efficiently slow down the plume and capture the highest contamination.

Update on Settlement Commitments, Disbursements and Planning for the future transition to Consent Order

Emma Glidden-Lyon (Abt Global) presented an update on Settlement commitments, disbursements, and planning for the future transition to the Consent Order. Ms. Glidden-Lyon talked about the current commitments and earnings, the anticipated commitments for the rest of this fiscal year (FY), and the fund reallocation and transition plan.

Ms. Glidden-Lyon discussed the status of current commitments over the length of the Settlement since the release of the conceptual plan (i.e., August 2021 through March 2026). In November, \$515 million had been committed; now, \$532 million has been committed. The capital fund is entirely committed, with \$84.6 million remaining as committed but not yet reimbursed. In the first three quarters of FY26, the Settlement has reimbursed \$115.3 million to communities. \$16 million in interest was earned in the first three quarters of FY26.

This FY to date (July 2025 through March 2026), \$16.1 million was awarded and \$0.8 million returned to the Settlement. Awards were made for O&M, construction, planning, and feasibility grants.

In the remainder of FY26, there will be an anticipated total of \$13.6 million in awards, and \$8.4 million will return to the Settlement as projects end or cost estimates change. \$13.3 million in contingency funds will be used to cover the capital commitments in FY26. FY26 will end with about \$29 million in contingency, which can be used for future capital projects.

Last November, the Co-Trustees anticipated a possible need for reallocation in FY26, but fewer projects than anticipated have been executed during FY26. No reallocation is needed for FY26.

There are additional anticipated capital projects after FY26 (i.e., July 2026 and onward). There will also be costs related to O&M, state administration, POETs, and private well sampling.

Ms. Glidden-Lyon discussed the transition from the Settlement to the 2007 Consent Order. The Co-Trustees make some key assumption when planning for this transition:

- Community data and best estimates are used to show a range in the timing of the transition.
- The point of transition from the Settlement to the 2007 Consent Order is when funds are committed.
- Future interest is not included in the timing estimates given the uncertainty of interest.
- Estimates of future O&M, Drinking Water Protection, and State Administration spending are included.

Ms. Glidden-Lyon presented a graph with lower and upper bounds of estimated funding needs. The original allocation plus interest earned totals \$806 million available. The fall of 2027 is the estimated transition point based on communities' survey responses and conversations with MPCA. The transition date will shift as projects happen earlier or later than expected. In addition, unused funding will continue to be returned to the Settlement as grants end, and interest will continue to be earned.

MPCA and DNR will continue to track the funding as communities update estimates. When allocations run out of funding, drinking water activities would revert to being reimbursed by 3M under the 2007 Consent Order. The state and 3M continue to work together through mediation.

Work Group Feedback

A work group member asked what the timetable is in terms of mediation and possible litigation. They asked what would happen if there is a delay yet funds are still needed for drinking water projects. MPCA said mediation has been slow and had no comment on legal strategy. MPCA wants to avoid any delay in funds, so they are trying to move things along.

A work group member asked if there should be a deadline with 3M since money will run out in FY28. MPCA said they and DNR have a shared sense of urgency.

Public comments and questions

A member of the public asked when funding for private well GAC filters will end. MPCA said private wells will continue to be operated through the Settlement and then through the Consent Order.

A member of the public asked if the Consent Order funds will pay for ongoing maintenance and operations of the wastewater treatment plants (WWTPs). MPCA said this question is part of ongoing conversations with 3M.

Grant Management and Next Steps

Rebecca Place (MPCA) presented on grant management and next steps. Ms. Place discussed grant management, seeking feedback, the grant review process, the private well program, Priority 1 next steps and meeting dates, and an update on Priority 2.

The state fiscal year ends on June 30, 2026. Communities are asked to submit invoices for work occurring on or before June 30, 2026, by July 31, 2026. For situations where that will be difficult to do, Ms. Place suggested that communities:

1. Meet with their MPCA project manager in late July to estimate the amount to leave in FY26 to pay remaining bills from that fiscal year.
2. Estimate the amount per grant.
3. Submit invoices from FY26 on their own.

The Community Survey will be sent out this summer and will inform the transition plan, annual review, and planning for the legislative report. The Survey will cover timelines of existing grants and the timing and cost for future grants. MPCA will also seek feedback on an O&M policy for permanent treatment facilities.

As a result of mediation, the Co-Trustees have agreed to include the 3M Company as a part of the review process but not as a decision-making body. This change should ultimately streamline the review process.

The backlog for whole-home treatment systems is currently over one year. MPCA is in the process of contracting with multiple installers to reduce the backlog. In the meantime, residents have access to bottled water.

As far as next steps on Priority 1, MPCA will continue reviewing grant forms and implementing community projects; evaluating Priority 1 funds as community projects are implemented; sampling private wells and communicating with residents about the need for private well testing; and installing whole-home treatment systems in homes that have well advisories.

The next Priority 1 work group meetings will be on November 18, 2026; May 19, 2027; and November 17, 2027.

For Priority 2, the initial project evaluations are complete. The Priority 2 staff have been engaging applicants regarding questions and clarifications. The award notification and public announcement is anticipated for late spring or early summer. The negotiation process and grant agreement development will start once award notifications are released.

Work Group Feedback

One work group member asked if the new O&M policy will be discussed in the November meeting, particularly if the previous philosophy around O&M reimbursements is shifting. MPCA said there will be time to discuss it at the November meeting. The work group member formally requested that the policy be discussed before anything is finalized. MPCA clarified that the goal of the policy is to provide standardization and guidance.

One work group member asked if the meeting materials will be sent out. MPCA said the Future Funding PowerPoint is already available and the other materials will be posted to the website.

One work group member thanked MPCA and DNR for the effort to reduce the backlog for whole-home treatment systems. They requested that MPCA inform the work groups when new contractors are finalized.

One work group member asked about delays in private-well testing. MPCA said they were able to streamline the process and can process new requests within a month.

One work group member echoed the above comments and concerns about the O&M policy.

Public comments and questions

One member of the public asked why things are taking longer than expected. MPCA said a combination of internal review, communications between the proposer and the agency, and bringing in 3M has prolonged the process.