



August 18, 2022

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The Honorable Rick Hansen  
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The Honorable Josh Heintzeman  
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St. Paul, MN 55155

Dear Legislators:

Please see the attached 3M Settlement Biannual Report and Spending Plan, as required by 2018 Session Law, Ch. 204, Sec. 1, Subd. 4 (2).

Please contact us if you have questions.

Sincerely,

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KK:JR:cbg

3M Settlement Biannual Report and Spending Plan  
August 18, 2022  
Page Two

Attachment

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Senator Karla Bigham  
Senator Chuck Wiger  
Senator Karin Housley  
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Representative Tony Jurgens  
Representative Keith Franke  
Representative Peter Fischer  
Representative Leon Lillie  
Representative Tou Xiong  
Representative Jay Xiong



REPORT TO THE  
LEGISLATURE

AUGUST 2022

# 3M Settlement biannual report

Report to the Legislature on  
Natural Resource Damages settlement  
in the east metropolitan area

**m** MINNESOTA

Pollution Control Agency  
Department of Natural Resources



## Legislative charge

*The commissioner of the Pollution Control Agency and the commissioner of the Department of Natural Resources must jointly submit by February 1 and August 1 each year, a biannual report to the chairs and ranking minority members of the legislative policy and finance committees with jurisdiction over environment and natural resources on expenditures from the water quality and sustainability account during the previous six months. Minn. Stat. § 115B.52*

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This report is available in alternative formats upon request, and online at <https://3msettlement.state.mn.us/>

**Document number:** lrc-pfc-2sy22

# Foreword

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On February 20, 2018, the State of Minnesota settled its Natural Resource Damage lawsuit against the 3M Company for \$850 million. Minnesota's Attorney General sued 3M in 2010 alleging that the company disposed of chemicals known as per- and polyfluoroalkyl substances (PFAS) and had damaged and continued to damage drinking water and natural resources in the Twin Cities East Metropolitan Area. After legal and other expenses, about \$720 million remains to finance drinking water and natural resource projects in the East Metro.

The Minnesota Pollution Control Agency and the Minnesota Department of Natural Resources are Co-Trustees of these funds.

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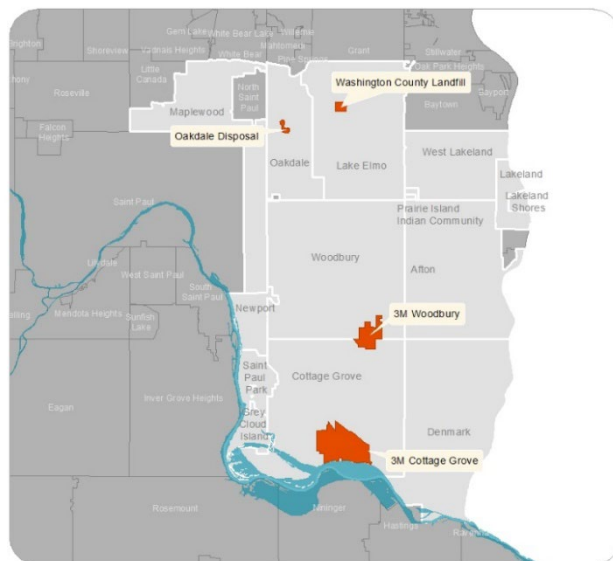
# Summary

The State of Minnesota and the 3M Company (3M) announced an agreement to settle the state’s Natural Resource Damages lawsuit for PFAS contamination on February 20, 2018. Under the terms of the agreement, 3M made an \$850 million grant to the state to be used for safe drinking water and natural resource projects, and the state’s lawsuit expenses. After legal and other expenses were paid, about \$720 million is available to finance drinking water and natural resource projects in the Twin Cities East Metropolitan Area. The Minnesota Pollution Control Agency (MPCA) and Minnesota Department of Natural Resources (DNR) are Co-Trustees for the grant.

## Priority 1 — Ensure safe and sustainable drinking water

The top priority for the grant money is to enhance the quality, quantity, and sustainability of drinking water in the East Metropolitan Area. This area includes, but is not limited to, the cities of Afton, Cottage Grove, Lake Elmo, Lakeland, Lakeland Shores, Maplewood, Newport, Oakdale, St. Paul Park, Woodbury and the townships of Denmark, Grey Cloud Island and West Lakeland, and the Prairie Island Indian Community. The goal of this highest priority work is to ensure safe drinking water in sufficient supply to residents and businesses in the East Metropolitan Area to meet their current and future water needs.

Figure 1: PFAS contamination traced to four disposal sites



## Priority 2 — Enhance natural resources

The second priority for grant money is to restore and enhance water resources, wildlife, habitat, fish and other aquatic resources, resource improvement, and outdoor recreational opportunities in the East Metropolitan Area and in downstream areas of the Mississippi and St. Croix Rivers. The terms of the 2018 3M Settlement Agreement (2018 Agreement) specify that \$20 million is available for Priority 2 projects. After the safe drinking water goals of Priority 1 are reasonably achieved, all remaining grant money is then available for natural resource restoration and enhancement projects. No additional funds are identified for Priority 2 projects beyond \$20 million at this time.

## Remaining grant funds

If there are funds remaining after the first two priority goals have been met, the grant can be used for statewide environmental improvement projects. Only projects in categories such as statewide water resources, habitat restoration, open space preservation, outdoor recreation improvements, or other sustainability projects would be eligible.

# 3M Settlement Work Groups – Priority 1

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The MPCA and DNR are responsible for implementing the 2018 Agreement. Under the terms of the agreement, the two agencies are responsible for establishing at least one working group to identify and recommend projects and are also responsible for determining what projects and other activities will be funded with Settlement money.

To engage with communities, stakeholders, and technical experts, the MPCA and DNR created two main work groups — the Government and 3M Working Group and the Citizen–Business Group. To assist these two main groups, a Drinking Water Supply Technical Subgroup 1 (Subgroup 1) was formed to analyze options and deliver assessments and advice on alternatives and options for the Conceptual Drinking Water Supply Plan (the plan).

The MPCA and DNR co-chair these groups and make all final decisions.

## Government and 3M Working Group

The Government and 3M Working Group is composed of one representative each from the MPCA, DNR, 3M, Washington County and one representative from each of the following communities: the cities of Afton, Cottage Grove, Lake Elmo, Lakeland, Lakeland Shores, Maplewood, Newport, Oakdale, St. Paul Park, Woodbury, the townships of Denmark, Grey Cloud Island and West Lakeland, and the Prairie Island Indian Community. One representative from the Citizen – Business Group is also a liaison to this group.

The group’s charter, meeting dates, and presentation materials are available on the 3M Settlement website — <https://3msettlement.state.mn.us/government-and-3m-working-group>.

## Citizen–Business Work Group

The Citizen–Business Group is composed of the MPCA, DNR, and 16 at-large citizen, business, and nongovernmental representatives who live or work in the East Metropolitan Area. One representative from the Government and 3M Working Group is also a liaison to this group.

The group’s charter, meeting dates, and presentation materials are available on the 3M Settlement website — <https://3msettlement.state.mn.us/citizen-and-business-group>.

## Drinking Water Supply Technical Subgroup 1

This technical subgroup analyzes options and provides assessments and advice to the MPCA, DNR, Government and 3M Working Group, and the Citizen–Business Group for long-term options for drinking water supply and for treatment of existing water supplies that will ensure safe drinking water in sufficient supply to residents and businesses in the East Metropolitan Area to meet their current and future needs.

The subgroup is composed of technical experts from MPCA, DNR, Minnesota Department of Health (MDH), 3M, Metropolitan Council, Washington County, the Minnesota Geological Survey, U.S. Geological Survey, Minnesota Rural Water Association, and the Minnesota Well Water Association. The cities of Afton, Cottage Grove, Lake Elmo, Lakeland, Lakeland Shores, Maplewood, Newport, Oakdale, St. Paul Park, Woodbury, the townships of Denmark, Grey Cloud Island and West Lakeland, and the Prairie Island Indian Community each have one representative on the subgroup.



The group's charter, meeting dates, and presentation materials are available on the 3M Settlement website — <https://3msettlement.state.mn.us/technical-subgroup-1-drinking-water-supply>.

## Planning and assistance

MPCA and DNR retained Abt Associates (Abt) as consultants to coordinate and facilitate implementation activities for the 2018 Agreement. Abt Associates is an existing Master Contractor for MPCA and DNR for Natural Resource Damage Assessment (NRDA) work and has considerable expertise with natural resource damage assessments and settlement implementation. In addition, Abt is providing an essential supplement to existing agency staff capacity.

Wood Environment & Infrastructure Solutions Inc. (Wood) was retained to develop a comprehensive groundwater model and drinking water model for the East Metropolitan Area, as well as cost estimates associated with long-term drinking water supply options. These models enabled the Co-Trustees to evaluate long-term drinking water supply options for the 14 communities. In addition, Wood is assisting with technical engineering review of community grant forms to implement the projects in the final plan.

AECOM Technical Services Inc. (AECOM) provided an independent peer review of the groundwater model. They are also the primary contractor in the assessment and evaluation of Project 1007.

Wood and AECOM are existing MPCA environmental consultants for Superfund projects, have extensive experience in providing technical assistance with hazardous substance release site evaluations and municipal infrastructure projects, and bring national expertise on PFAS contamination issues.

## Conceptual Drinking Water Supply Plan

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The Conceptual Drinking Water Supply Plan (the plan) is a key component of the 3M Settlement that ensures drinking water needs for the East Metropolitan Area are appropriately and thoroughly considered. The value of the plan is to identify drinking water projects that will meet the needs of the communities in the area — now and into the future.

### Final plan

Following the public comment period, the Co-Trustees continued to update the Draft plan based on feedback from the public and government units. The final plan was released August 18, 2021. The Co-Trustees held briefings for work group members, local elected officials, legislators, and the media before releasing the plan to the public. The final plan can be found at this website: [Full plan documents: Conceptual Drinking Water Supply Plan | Minnesota 3M PFAS Settlement \(state.mn.us\)](https://3msettlement.state.mn.us/Conceptual-Drinking-Water-Supply-Plan).

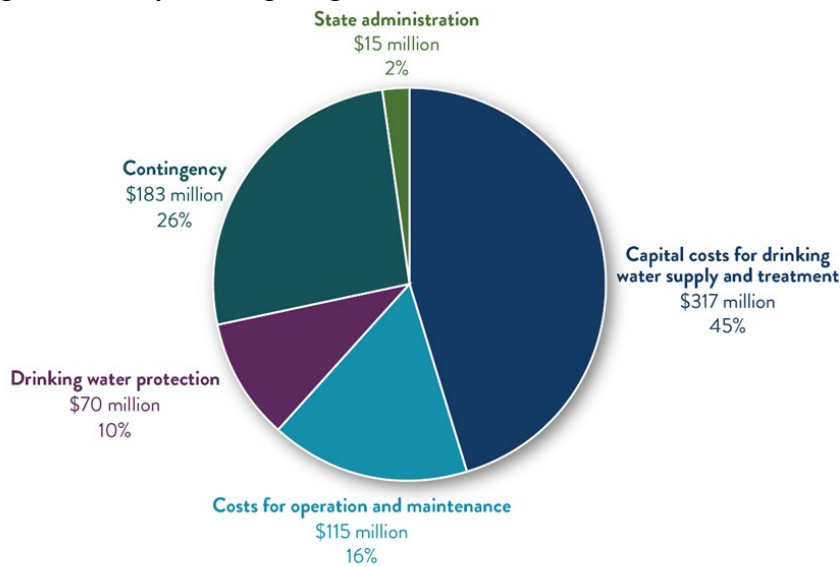
The final plan meets the Priority 1 goals developed by the Co-Trustees and work groups to provide clean drinking water, protect and improve groundwater quality, protect and maintain groundwater quantity, and minimize long-term cost burdens for communities. The four pillars of the plan are:

1. **Comprehensive** - Addresses both tap water and ground water (the source itself)
2. **Safe and Sustainable** - Protects drinking water immediately and long-term
3. **Resilient** - Adaptable to new information and data on PFAS
4. **Flexible** - Allows for flexible funding in communities

The major funding categories include capital infrastructure, operation and maintenance (O&M), and drinking water protection. The final plan treats drinking water wells with a health index (HI) of at least 0.5 (using the HI calculation at the time the plan was finalized) and includes capital and O&M funding for

an estimated 20 years for municipal systems and an estimated 30 years for private wells. If needed, the plan also includes an increased contingency for cost overruns, future treatment, and new drinking water sources. Finally, the funding reallocation strategy covers potential future shortfalls and surpluses as costs are refined during implementation.

**Figure 2: Priority 1 funding categories**



Community projects include building new or expanded water treatment plants, installing whole-home water filter systems, connecting homes to public water supplies, and building or enhancing connections between existing community water treatment systems.

It is important to note that everyone in the area currently has access to safe drinking water. If Settlement funds are depleted in the future, the Consent Order (a separate legal agreement with 3M) provides funding for treatment for any drinking water wells that receive a well advisory (HI of at least 1).

## Implementing the final plan

Immediately upon releasing the final plan, the implementation process began allowing communities to access grant funding for municipal capital drinking water infrastructure planning and design, construction, and O&M. The implementation phase is driven by communities and will cover multiple years as communities choose to access grant funding and move through the grant process. For individual homeowners, the MPCA continues to use contractors to manage the installation and maintenance of whole home treatment systems. More details on funded project requests can be found in the Final Drinking Water Plan Funded Projects section below.

## Changing PFAS Health Values for Drinking Water

Since the release of the plan in August 2021, MDH released a new health-based value (HBV) for perfluorohexanoate (PFHxA) of 0.2 micrograms per liter (or parts per billion [ppb]) in January 2022 and an updated HBV for perfluorobutane sulfonate (PFBS) of 0.1 ppb (was 2 ppb) in March 2022. MDH updated their HI equation with the new values to determine if private wells and/or public wells meet or exceed an HI of 1, triggering a well advisory. There were 12 new private wells in the East Metro that received a well advisory with the new PFHxA HBV, and 8 new private wells in the East Metro that

received a well advisory with the updated PFBS HBV. All 20 wells were already included in the plan to receive treatment as they had an HI  $\geq$  0.5, demonstrating the plan's resiliency.

On June 15<sup>th</sup>, 2022, the U.S. Environmental Protection Agency (EPA) issued interim health-based guidance values, also referred to as health advisories, for perfluorooctanoate (PFOA) of 0.000004 ppb (or 0.004 parts per trillion [ppt]) and perfluorooctane sulfonate (PFOS) of 0.00002 ppb (0.02 ppt), and final health advisories for PFBS 2 ppb (2,000 ppt) and GenX chemicals of 0.01 ppb (10 ppt). These are non-regulatory values designed to provide context and guidance for policy makers. MDH is reviewing EPA's methods and analysis for these new values and will conduct their own analyses of all relevant data. MDH will share their recommendations as soon as they are available, potentially by the end of 2022. More information is available on the MDH website: [Per- and Polyfluoroalkyl Substances \(PFAS\) - EH: Minnesota Department of Health \(state.mn.us\)](https://www.health.state.mn.us/eh/pfas/).

## Project 1007

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Investigations continue into an area known as Project 1007, located in the central portion of Washington County, as part of Priority 1 of the Settlement.

Project 1007 is a system of pipes, open channels, catch basins, and two dams that direct the flow of water from the Tri-Lakes (DeMontreville, Olson, and Jane) area in Lake Elmo to the St. Croix River. It also uses several lakes and creeks to connect to the St. Croix River. One of those creeks, Raleigh Creek, flows through the former 3M Oakdale disposal site. Additionally, between the late 1980's to the early 1990's, untreated water from the Washington County Landfill was discharged to Project 1007.

The purpose of the investigation is to understand how Project 1007 is contributing to PFAS contamination in drinking water resources in the East Metro. The results of the investigation will be used to evaluate long-term drinking water protection options in the area. The progress reports and supporting documents are available at: <https://3msettlement.state.mn.us/project-1007>

## Investigation process

The Project 1007 investigation has led to a better understanding of PFAS movement from surface water into sediment and further into groundwater/drinking water resources. Large sets of data have been collected across the Project 1007 corridor and data analysis has confirmed PFAS impacts in surface water, sediment, surface water foam, and groundwater. Surface water and groundwater continue to move PFAS contamination from the Oakdale Disposal Site across the region with no notable decrease in concentrations from the beginning of the investigation in 2019 nor in concentrations emanating from the Oakdale Disposal Site. As a result of this continued long-term source of PFAS in the area, combined with historic impacts from the Washington County landfill, there is currently no evidence that groundwater concentrations are decreasing at this time.

3M began implementing an MPCA-approved work plan in the fall of 2020 to reassess PFAS impacts to surface and groundwater at the Oakdale Disposal Site. 3M submitted reports that revise the understanding of the contamination remaining onsite, water losses to surface water and groundwater on and offsite, and a draft plan for initial steps for further investigation and taking action to re-route Raleigh Creek. The proposed changes would prevent the water in Raleigh Creek from coming into contact with a significant portion of the wastes that remain onsite. As the study progresses, 3M and the MPCA will continue dialogue regarding the status of results and potential near- and long-term measures to address the remaining contamination. 3M has separately submitted monitoring reports for the groundwater control system at the site as a requirement of the 2007 Consent Order.

An ecological risk assessment was conducted in 2020 through 2021 that demonstrated health risks to multiple species in various areas of the Project 1007 system. The species at-risk include: two fish (least darter and pugnose shiner), one reptile (Blanding’s turtle), two birds (Forster’s tern and great blue heron), and two mammals (muskrat and mink). Some of these species are listed as special concern or threatened species. Ecological risk assessment work continues to be assessed based on new PFAS toxics information and health risks to various species including deer, duck, geese, and plant species collected in 2021 and 2022. The outcomes of the plant addendum work in FY22 led to the removal of the muskrat as at-risk for PFAS impacts. Addendums to the ecological risk assessment will be forthcoming over the remainder of FY22, and early FY23.

Surface water, porewater, sediment, soil, and groundwater data are used in surface water and groundwater models. Together, the models are providing an understanding of the area’s surface water systems and their interactions underground. The combined model will provide estimates of long-term movement of the PFAS across the area. The model includes an area from the Mississippi River to the St. Croix River to characterize the direction of groundwater and contaminants, due to complex movement of groundwater in multiple directions away from the source areas. Data is still being collected and will be used to update the combined model. More information is available in Co-Trustee planned activities section below.

## Final Drinking Water Plan funded projects

The Co-Trustees developed an implementation process for communities to receive Settlement grant funding for drinking water-related projects that align with the plan. The State has approved several grants since the release of the final plan in August 2021. Grant agreements that have been executed since February 2022 are listed in the table below.

A total of \$56,504,040 of Settlement funds have been awarded in grants to East Metropolitan Area government units to assist in addressing PFAS impacts to date. This includes expedited projects that were approved for implementation before the plan was final as they were time sensitive and were consistent with the final plan. Most of the expedited projects were funded from interest earned on the Settlement funds, and the remainder of the early projects were funded with the contingency allocation.

The full list of expedited projects can be found at this website: [Expedited and request for funding projects | Minnesota 3M PFAS Settlement \(state.mn.us\)](#).

The projects below have been funded since the last legislative report in February 2022.

**Table 1. Funding by Community Project**

Community	Project	Amount funded
Cottage Grove	Cottage Grove Ion Exchange pilot study - amendment	\$60,000
Cottage Grove	Goodview neighborhood extension (construction phase)	\$3,033,200
Cottage Grove	Low zone water main construction	\$3,375,000
Woodbury	Salem Meadows church municipal connection	\$200,000
Woodbury	Communications and outreach	\$151,310
	<b>Total funded</b>	<b>\$6,819,510</b>

# Other Priority 1 activities

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## Ion exchange pilot project

Cottage Grove completed an ion-exchange (IX) pilot project at the end of 2021. Results from the pilot project are available on the Settlement website here: <https://3msettlement.state.mn.us/sites/default/files/c-pfc3-22.pdf>. The city evaluated IX as a potential treatment media for PFAS in the East Metropolitan Area. Additional funding has since been provided to Cottage Grove to do an extended study that focuses on validating iron and manganese pretreatment needs for granular activated carbon (GAC) and IX media to compare alternative PFAS treatment scenarios in an accelerated timespan. This extended study will be beneficial to Cottage Grove to assist in near term water treatment design considerations.

Currently, MDH has not approved IX as a treatment option for drinking water systems in Minnesota. MDH expects to be able to use the data gathered from the IX pilot study to validate the design of IX PFAS removal for the other affected East Metropolitan Area communities on a case-by-case basis as requested.

## Capacity grants

The MPCA and DNR provided communities and specific organizations with funding through “capacity grants” to support their participation of the technical subgroup or related planning activities in development of the plan. Since the plan was finalized in August 2021, the capacity grants concluded on June 30<sup>th</sup>, 2022, and the Subgroup 1 meetings have concluded. A total of \$700,000 in grants was provided to the communities between 2018 – 2022.

## Temporary drinking water treatment systems

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Under terms of the Settlement, 3M is to provide up to \$40 million, in addition to the \$850 million grant amount, over the first five years of the 2018 Agreement, for temporary drinking water treatment systems until a long-term action is identified.

These temporary treatment systems meet 3M’s obligation to provide an alternative drinking water supply where public or private drinking water wells exceed MDH criteria for PFAS, as outlined in the 2007 Settlement Agreement and Consent Order (2007 SACO) between 3M and the MPCA. Such temporary municipal GAC treatment systems are currently operating in Cottage Grove, Oakdale and Woodbury. The temporary treatment system in Oakdale is in addition to the GAC treatment system already in place. Under the terms outlined in the 2007 SACO, the MPCA seeks costs recovery of State’s expenses related to these temporary treatment systems.

The MPCA entered into grant agreements with the cities of Cottage Grove, Woodbury, and Oakdale to cover the costs to construct and operate their temporary municipal water treatment systems. Through the first four years of this provision, 3M has reimbursed the MPCA approximately \$25 million to cover these costs of the temporary treatment systems and in addition, to provide bottled water to residents prior to installation of a home treatment system. 3M also directly purchased GAC treatment vessels for the cities of Woodbury and Oakdale during construction of each temporary treatment system at an estimated cost of \$2.7 million. This five-year temporary drinking water provision expires on February 20, 2023; Settlement funds will then cover the O&M costs of these systems until the long-term permanent water systems are constructed.

# Investment Planning

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Since the Settlement was finalized in February 2018, the Co-Trustees have managed the \$720 million (includes Priority 1 and 2) Settlement funds in an Invested Treasurer's Cash (ITC) account, earning minimum interest. This was appropriate in the short-term, prior to developing the long-term strategy for the East Metro drinking water projects. As noted earlier, the plan identified five funding allocations: capital, O&M, contingency, drinking water protection, and state administration. The Co-Trustees, working with the State Board of Investment (SBI) identified various investment options to maximize the return, to the extent practicable, of the \$700 Million in designated Priority 1 funds while minimizing the risk of loss. After review of various scenarios, the Co-Trustees recommended an investment strategy of the \$700 Million Priority 1 funds to meet the long-term goals outlined in the CDWSP.

The recommended investment strategy included investing: capital and drinking water protection designated funding in a portfolio of cash and treasury bonds; O&M designated funding invested evenly between cash, stocks and bonds; and designated contingency funding invested half in cash and half in stocks/bonds. State administrative costs will remain managed by the Co-Trustees in an ITC account.

A detailed outline of the investment strategy was presented to the workgroups in May 2022, and can be found here:

<https://3msettlement.state.mn.us/sites/default/files/May%202022%20Investment%20Plan%20Handout.pdf>

The SBI approved this funding strategy at the May 2022 SBI Board Meeting.

The Co-Trustees' original intent was to implement this investment strategy in July 2022. However, with EPA announcing interim health-based guidance values, also referred to as health advisories for PFOA and PFOS in June 2022, the Co-Trustees have paused implementation of the investment plan until it can be better determined what impact these lower values may have on the different funding allocations and amounts outlined in the plan. The Co-Trustees intend to inform the workgroup members and Legislature of any adjustments in the investment strategy that may occur.

## Priority 2 planning

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The terms of the 2018 3M Settlement Agreement specify that \$20 million is immediately available for Priority 2 project funding. The DNR and MPCA have begun planning for Priority 2 that provides funding to restore and enhance water resources, wildlife, habitat, fish and other aquatic resources, resource improvement, and outdoor recreational opportunities in the East Metropolitan Area and in downstream areas of the Mississippi and St. Croix Rivers.

In the first half of 2022, the DNR and MPCA finalized an approach to Priority 2 that will develop goals and project evaluation criteria, identify appropriate types of natural resource enhancements and recreational opportunities, and provide funding via a competitive solicitation process. Priority 2 will be informed by new advisory Work Groups including a Government and 3M Work Group, a Citizen Work Group, and a technical Ecosystem Services and Recreation Subgroup. In addition to the communities with impacts to drinking water that participated in Priority 1, Hastings, Inver Grove Heights, Lake St. Croix Beach, Landfall, Nininger Township, Rosemount, St. Mary's Point, Saint Paul, South Saint Paul, Dakota County, and Ramsey County will be invited to participate in the Priority 2 Government and 3M Work Group because (1) they also have experienced natural resource injuries or recreational service losses from PFAS released by 3M and (2) are located in the East Metropolitan Area and downstream locations of the Mississippi and St. Croix Rivers. Communities may opt out of participating in the Work



Groups and would still be eligible to apply for a project grant. Citizen Work Group members are being selected via an application process, and Priority 1 Citizen-Business Work Group members may join if they desire.

The DNR has hired a Priority 2 coordinator who will lead this planning effort.

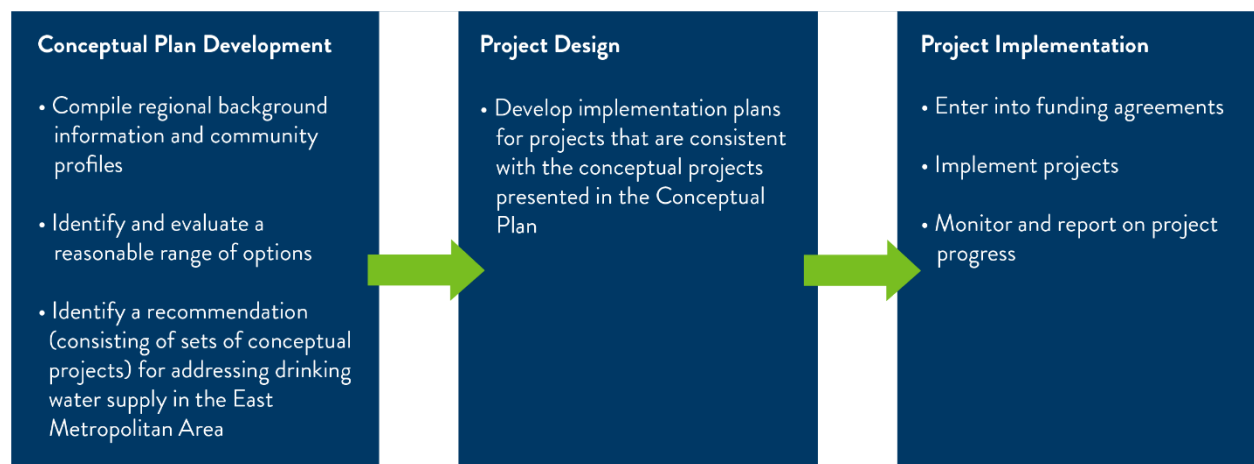
## FY2023: Co-Trustee planned activities

### Conceptual Plan implementation

Immediately following the completion and release of the plan, the MPCA provided communities with access to grant funding for municipal capital infrastructure planning and design, construction, and O&M. The implementation phase is driven by communities and will cover multiple years as communities choose to access grant funding and move through the grant process.

For individual homeowners, the MPCA continues to manage the installation and maintenance of whole home water treatment systems using state contractors.

Figure 3: Overview of the planning and implementation process



### Health-based guidance values for PFAS in Drinking Water

Since the release of the plan in August 2022, MDH has released new and updated health-based values for PFHxA and PFBS, and EPA has released interim health advisory values for PFOA, PFOS, and final health advisory values for PFBS, and GenX. The plan is resilient and was designed to adapt to changes such as these. The plan includes a proactive treatment threshold by treating wells with an HI of 0.5 or greater (using the HI calculation at the time the plan was finalized) and includes a designated contingency allocation (Figure 2) for future changes and unknowns. The Co-Trustees continue to implement the plan; for example, they continue to supply private wells with point of entry treatment systems (POETSs), sample private and public wells, connect homes to public water supply, provide grants for community capital projects, etc.

MPCA and MDH are going through various scenarios to better understand how future, lower health-based values might impact wells in the East Metro. Based on the different scenarios, it is clear there is a need for additional sampling of public and private wells with the most recent drinking water lab method used by MDH to determine the impacts to the East Metro. The state agencies are working with cities

currently planning and designing long-term treatment for their municipal drinking water systems on options to prepare for expected lower state and federal health-based values in the future.

## Project 1007

To inform the overall understanding of PFAS contamination in the Project 1007 corridor, sampling will continue for surface water, sediment, surface water foam, soil, and groundwater; all of which have been confirmed to contain PFAS. Planned activities are summarized below:

- Deep and shallow monitoring wells are being installed throughout the project corridor to gain a better understanding of the contaminant movement into the multiple drinking water aquifers that serve Oakdale, Lake Elmo, and West Lakeland.
- Known ecological risks will be further evaluated as new information and studies are understood for the known PFAS impacts in the area.
- Modeling will continue in the area to evaluate the long-term impacts across the region. Groundwater aquifer pumping tests will inform the model and long-term feasibility study.
- Interim (near-term) cleanup actions are being evaluated for surface water impacts along the Project 1007 corridor, to reduce PFAS concentrations that spread into groundwater and drinking water.

Data gathered from the Project 1007 investigation will be used to update the combined surface water and groundwater model to provide estimates of long-term movement of the PFAS across the area. The model will be used to evaluate the feasibility of innovative technologies aimed at PFAS removal in surface water, sediment, and groundwater. Groundwater evaluation is underway and will help determine the long-term cleanup options available for protection of the drinking water resources in the region.

An innovative surface activated foam fractionation technology is planned to be deployed in 2022 to evaluate removal of PFAS in surface water in various locations across the Project 1007 area. This technology exploits the foaming behavior of PFAS chemicals, by aerating the surface water causing the PFAS to foam, allowing for easy physical removal of PFAS from water. The foam is then concentrated into a small volume of liquid for either disposal or destruction. Another innovative technology, that is intended to destroy PFAS, called electrochemical oxidation, will be tested during this pilot study. If these technologies demonstrate effective removal/effective destruction of PFAS during this pilot project phase, the Co-Trustees will consider using these and other technologies on a larger scale across the East Metro area.

The MPCA is targeting the end of calendar year 2023 for substantial completion of a feasibility study. The overall intent of the feasibility study is to conduct a detailed analysis of remedial technologies to implement responses to releases of PFAS. Recommended actions to remedy releases will be based on the ability to implement short- or long-term actions; ability to reduce toxicity, mobility or volume of contamination; cost effectiveness; or other reasonable and appropriate actions necessary in the overall protection of human health and the environment. This feasibility study will be consistent with EPA guidance for conducting feasibility studies under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, or Federal Superfund Law), to maintain the ability to implement appropriate response actions under State or Federal Superfund regulatory authority.



## 3M Settlement work groups

### Priority 1

The Priority 1 work groups consist of the Government and 3M Working Group and the Citizen-Business Work Group. Subgroup 1 concluded on June 30<sup>th</sup>, 2022, as the group’s purpose was to assist with developing the plan that has since been finalized. Moving forward, the Co-Trustees plan to hold combined Government and 3M and Citizen-Business work group meetings at least twice per year. Topics for those meetings may include updates on projects and spending, funding reallocation, and/or special topics such as drinking water protection, technology updates, Project 1007, and drinking water criteria updates.

### Priority 2

The Priority 2 project solicitation-based process is expected to initiate in earnest in the third quarter of 2022, once the Work Groups have been organized. The key milestones for Priority 2 planning are illustrated in the figure below. It is expected this process will take approximately 15 months from development of Work Groups to when DNR can begin awarding grants for Priority 2 projects.

**Figure 4: Key milestones for Priority 2 planning**

① Develop Goals, Scope, and Criteria	② Undertake Project Solicitations	③ Evaluate Restoration Project Proposals	④ Implement Projects
~ 6 months	~ 3 months	~ 6 months	TBD
<ul style="list-style-type: none"> <li>• Develop charters and undertake “visioning exercise” on what success looks like</li> <li>• Develop detailed goals</li> <li>• Develop scope and evaluation criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Develop grant solicitations using scope and criteria developed in Step 1</li> </ul>	<ul style="list-style-type: none"> <li>• Receive proposals and follow-up with questions</li> <li>• Evaluate all projects using criteria developed in Step 1</li> </ul>	<ul style="list-style-type: none"> <li>• Award grants and enter into grant agreements</li> <li>• Administer grants</li> <li>• Develop metrics and report on progress</li> </ul>

# FY2023: Co-Trustee spending plan

The spending plan includes MPCA and DNR direct staff and contractual expenses to manage and implement the 3M Settlement, including projects identified in the final plan. The plan project costs include implementation of capital planning and design work, other drinking water infrastructure improvement work (such as expedited and request for funding projects), O&M for long-term treatment systems, and reimbursements to homeowners for individual connections to a municipal system, whole house treatment system removal, and private well sealing. Note that the amount estimated for these projects is based on what is in the plan and their anticipated timeline; additional funds may be provided as needed for approved projects.

Category	Estimated amount
<b><i>Settlement and work group costs</i></b>	
Work group assistance (Abt, Wood)	\$750,000
Project 1007 (AECOM)	\$5,000,000
MDH staff/technical support	\$210,000
<b><i>MPCA/DNR staff and operational costs</i></b>	
MPCA/DNR staff/technical support for Priority 1	\$1,200,000
MPCA/DNR staff/technical support for Priority 2	\$500,000
East Metro Drinking Water monitoring	1,250,000
Home (GAC) treatment system management	1,500,000
Home water connection reimbursements	250,000
<b><i>Total staff and consultant technical support for FY2023</i></b>	<b><i>\$10,660,000</i></b>
<b><i>Community grants</i></b>	
Planning and design work for Conceptual Plan project implementation	\$7,000,000
Other funded projects – capital infrastructure (including expedited and request for funding projects), long-term treatment O&M	\$40,000,000
<b><i>Total estimated community grant expenditures for FY2023</i></b>	<b><i>\$47,000,000</i></b>
<b><i>Total estimated expenditures for FY2023</i></b>	<b><i>\$57,660,000</i></b>

# Expenditures for Priority 1

Expenses related to implementation of the 3M Settlement: Original grant: \$700,000,000

This report covers the period January 1, 2022 – June 30, 2022

<b>Balance:</b> December 31, 2021	<b>\$714,186,731</b>
<b>Revenue:</b> Interest earned January 1, 2022 – June 30, 2022	<b>\$1,898,369</b>
<b>Total Revenue</b>	<b>\$716,085,099</b>
<b>Expenditures:</b> January 1, 2022 – June 30, 2022	

<b>Category</b>	<b>Amount</b>
<b><i>Settlement, Work Group and Technical Sub-Group costs</i></b>	
Work group assistance (Abt, Wood)	(\$146,058)
Project 1007 (AECOM)	(\$1,251,395)
MDH staff/technical support	(\$63,935)
<b><i>MPCA/DNR staff and operational costs</i></b>	
MPCA/DNR staff/technical support	(\$432,598)
East Metro Drinking water monitoring	(\$120,980)
Home (GAC) treatment system management	(\$436,978)
Home water connection reimbursements	(\$22,150)
<b><i>Total Co-Trustee expenditures subtotal (as of June 30, 2022)</i></b>	<b><i>(\$2,474,094)</i></b>
<b><i>Grants</i></b>	
Funded capital projects	(\$1,560,483)
Funded O&M projects	(\$231,065)
Capacity grant payments	(\$33,996)
<b><i>Total Grant expenditures subtotal (as of June 30, 2022)</i></b>	<b><i>(\$1,825,544)</i></b>
<b><i>Total Expenditures (as of June 30, 2022)</i></b>	<b><i>(\$4,299,638)</i></b>
<b>Balance (as of June 30, 2022)</b>	<b>\$711,785,462</b>

# Expenditures for Priority 2

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Expenses related to implementation of the 3M Settlement: Original grant: \$20,000,000

This report covers the period January 1, 2022 – June 30, 2022

<b>Balance:</b> January 1, 2022	<b>\$20,709,915</b>
<b>Revenue:</b> Interest earned January 1, 2022 – June 30, 2022	<b>\$56,458</b>
Total Revenue	<b>\$20,766,373</b>

**Expenditures:** January 1, 2022 – June 30, 2022

***MPCA/DNR staff and operational costs***

MPCA/DNR staff/technical support	(\$25,992)
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<b><i>Total Expenditures (as of June 30, 2022)</i></b>	<b><i>(\$25,992)</i></b>
<b>Balance (as of June 30, 2022)</b>	<b>\$20,740,381</b>

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