



February 8, 2021

The Honorable Carrie Ruud
Chair, Senate Environment and Natural Resources
Policy and Legacy Finance Committee
3233 Minnesota Senate Building
95 University Avenue West
St. Paul, MN 55155

The Honorable Rick Hansen
Chair, House Environment and Natural Resources
Finance and Policy Committee
407 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

The Honorable Patricia Torres Ray
Ranking Minority Member, Senate Environment and
Natural Resources Finance Committee
2235 Minnesota Senate Building
95 University Avenue West
St. Paul, MN 55155

The Honorable Bill Ingebrigtsen
Chair, Senate Environment and Natural Resources
Finance Committee
3207 Minnesota Senate Building
95 University Avenue West
St. Paul, MN 55155

The Honorable Fong Hawj
Ranking Minority Member, Senate Environment and
Natural Resources Policy and Legacy Finance
Committee
2201 Minnesota Senate Building
95 University Avenue West
St. Paul, MN 55155

The Honorable Josh Heintzeman
Republican Lead, House Environment and Natural
Resources Finance and Policy
353 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

Dear Legislators:

Please see the attached 3M Settlement Biannual Report, 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

Attachment

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

FEBRUARY 2021

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/>

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Foreword

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

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

Executive summary

From the beginning of this planning process, the Co-Trustees intended to present a plan for providing safe and sustainable drinking water to the 14 communities currently known to be affected by PFAS contamination in the East Metropolitan Area, now and into the future, taking into account both public water systems and private wells.

The Co-Trustees followed a strategic planning process that considered the region as a whole, starting from the source of the drinking water and ending where it comes out of the faucet.

The recommended options are designed to invest in treatment systems, drinking water protection, and sustainability. The Co-Trustees focused on balancing the building of resilient systems that can handle changing standards or contamination with minimal impact on affected communities.

With input from citizens, stakeholders, and technical experts from each of the affected communities, a comprehensive set of recommended options was developed and opened for public comment. An overview of the recommended options and next steps is included in the report. The Co-Trustees are still considering all public comments and no final decisions have been made at this time.

Contents

Foreword	1
Executive summary	1
Contents	2
Settlement overview	3
Priority One — Ensure safe and sustainable drinking water	3
Priority Two — Enhance natural resources	3
Remaining grant funds	3
Conceptual Drinking Water Supply Plan	4
Recommended options	4
Communication and outreach	5
Next steps	7
Community and technical work groups	7
Government and 3M Working Group	7
Citizen-Business Group	8
Drinking Water Supply Technical Subgroup 1	8
Planning and assistance	8
Project 1007	9
Funded projects	10
Capacity grants	10
Expedited projects	10
Request for project funding	11
Ion exchange pilot project	11
Temporary drinking water treatment systems	12
Expenditures	12

Settlement overview

The State of Minnesota and the 3M Company 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 of the grant.

Priority One — 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, and 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.

Priority Two — Enhance natural resources

The second priority for grant spending 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.

The terms of the 2018 3M Settlement specify that up to \$20 million from the settlement is immediately available for Priority Two projects. After the safe drinking water goals of the first priority are reasonably achieved, all remaining grant money is then available for natural resource restoration and enhancement projects, as part of Priority Two.

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.

Conceptual Drinking Water Supply Plan

In September 2020, the MPCA and DNR released their draft plan to spend \$700 million on a drinking water supply plan for 14 communities in the East Metropolitan Area.

The community and technical work groups have been an integral part in identifying and developing the recommended projects for the Conceptual Drinking Water Supply Plan (Conceptual Plan). As Co-Trustees, the MPCA and DNR used a strategic and collaborative approach to develop collective goals to ensure the region has safe and sustainable drinking water supply.

The comprehensive Conceptual Plan, one page summaries, and supporting documents are available at <https://3msettlement.state.mn.us/DrinkingWaterSupply>.

Priority 1 goals – Protect water, help communities

- **Provide** safe drinking water 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

Recommended options

With input from citizens, stakeholders, and technical experts from each of the affected communities, the Co-Trustees developed a comprehensive set of recommended options to provide safe and sustainable drinking water now and into the future, and account for every home, neighborhood, and community in the 150 square miles affected by PFAS contamination in the East Metropolitan Area.

As shown in figure 1, the recommended options all use treatment thresholds that allow for more wells to be treated (municipal and private) than just those that are issued a well advisory.

Minnesota Department of Health issues a wells advisory when a well has a health index (HI) of 1 or greater. Options 1 and 3 propose to treat wells that have a health index of 0.5 or greater and option 2 treats wells identified with a health index of 0.3 or greater.

Figure 1 also shows the number of years that operation and maintenance for public and private wells will be covered by the Settlement. In addition, each option will invest in projects to preserve and protect groundwater as a source of drinking water and to improve the overall quality of groundwater in the east metropolitan area.

What is an HI?

The Health Index (HI) accounts for more than one PFAS compound. When combined, a well with an HI of 1 or greater is issued a well advisory by the Minnesota Department of Health.

An HI of 1 is protective for all people, including the most sensitive population.

Using a lower HI builds in a level of resiliency for potential future changing conditions.

Figure 1: Overview of costs for each option

	Option 1 (preferred)	Option 2	Option 3
			
Funding priorities			
Total	\$700 million	\$700 million	\$700 million
Initial capital costs	\$302.5 million	\$319.1 million	\$299.1 million
O&M costs for public water systems	\$147 million for public water systems for approximately 40 years	\$131 million for public water systems for approximately 35 years	\$161 million for public water systems for approximately 21 years
O&M costs for private wells	\$19 million for private wells covering over 100 years	\$24 million for private wells covering over 100 years	\$19 million for private wells covering over 100 years
Capital costs for potential additional neighborhood hookups	\$41 million	\$41 million	\$41 million
Future contingency for HBV/HRL and plume movement, and cost over-runs	\$38 million	\$33 million	\$28 million
Drinking water protection	\$70 million	\$70 million	\$70 million
Sustainability and conservation	\$60 million	\$60 million	\$60 million
State administration	\$22 million	\$22 million	\$22 million

Communication and outreach

On September 10, 2020, the MPCA and DNR announced the draft comprehensive set of recommended options.

Briefings

The Co-Trustees held briefings outlining the draft recommended options for the Government and 3M Working Group, Citizen-Business Group, and the Drinking Water Supply Technical Subgroup, local elected officials, legislators, and the news media.

Community and public meetings

Four virtual public meetings were held on Tuesday, September 22 and Wednesday, September 23. The meetings were held from 3 - 5 p.m. and 7 - 9 p.m. each day.

The MPCA and the DNR also presented the draft recommended options to local elected officials at their request.

Social media

During the public comment period, nine different ads ran across four social media platforms, including Facebook, Twitter, LinkedIn, and Instagram, using both a paid and organic social media strategies.

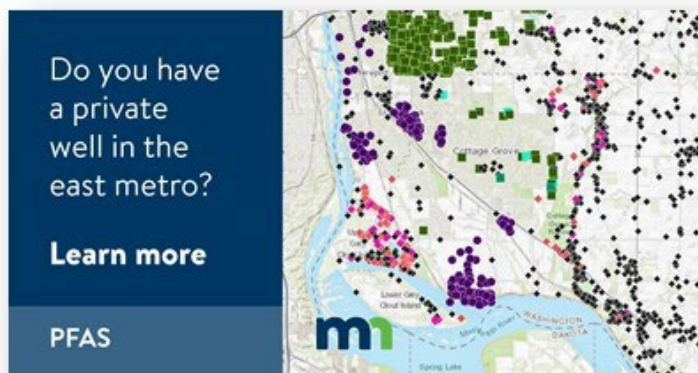
Paid social media: Through this approach, the MPCA and DNR targeted the ads to those living and working in the 14 communities.

- Total reach (how many individuals we reached): 71,125
- Total impressions (how many times ads were seen): 231,999

Organic posts: Ads that were posted to the agency's social media profile page and had wider reach beyond the 14 communities.

- Total impressions: 1,059,943
- Total likes: 9,003
- Total shares: 3,014
- Total link clicks: 4,019

Figure 2: Most popular social media post; reaching 80,083 with 176,917 impressions



Informational resources

A variety of resources were developed to help summarize the comprehensive set of options, they include:

- Interactive map for private well owners
- One page summary of each option
- Recording of public meetings
- Educational video on PFAS in the east metro area
- Maps and figures

All of these resources are available at <https://3msettlement.state.mn.us/DrinkingWaterSupply>

Work group meetings

Throughout the process, the work group meetings provided an important platform to listen and share information on the comprehensive plan. For the draft recommended options, the MPCA, DNR, and MDH answered questions and provided clarification to the work group members.

Community leadership and technical meetings

Multiple rounds of community leadership and technical one-on-one meetings were held with MPCA and DNR to provide an opportunity to listen, gather detailed information, and to answer questions specific to each community. Community concerns were discussed in the leadership one-on-one meetings, and detailed information that helped improve the recommended options were shared during the technical one-on-one meetings. Technical meetings with each of the communities included MPCA's environmental consultant (Wood). Additional one-on-one meetings will be held as needed and/or requested.

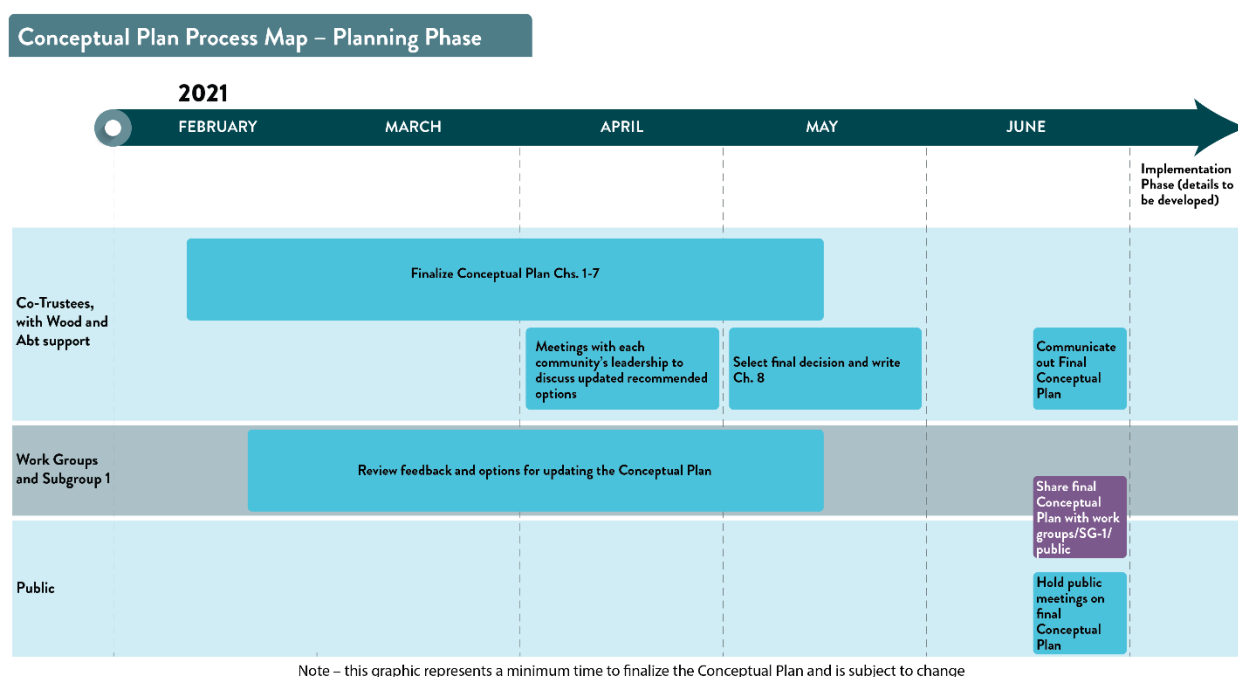
Public comments

The comprehensive set of three recommended options was open for public comment from September 10 through December 10, 2020. The MPCA and DNR are in the process of reviewing and considering all public comments as we work to update the Conceptual Plan.

Next steps

The Co-Trustees continue to review feedback received from the work group members and the public, and consider appropriate changes to the draft plan. Co-Trustees will be meeting with the communities, individually, to answer questions, receive feedback, and discuss the technical and policy components of the draft plan before making a final decision. Once the final decision is made, the Conceptual Plan will be finalized and shared with work group members, local elected officials, legislators, and the general public.

Figure 3: Process for finalizing Conceptual Plan



Community and technical work groups

Under the terms of the agreement, the two agencies are responsible for establishing at least one working group to advise 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 Work 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.

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

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, and 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 Group

The Citizen–Business Group is composed of MPCA, DNR, and 15 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 provide 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 group 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, and Woodbury, the townships of Denmark, Grey Cloud Island and West Lakeland, and the Prairie Island Indian Community each have one representative in 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) to coordinate and facilitate implementation activities for the 2018 Settlement. Abt is an existing MPCA contractor for Natural Resource Damage Assessment (NRDA) work and has considerable expertise in NRDA and settlement implementation and 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. Once the models were developed, Wood used these models to determine the costs for each option. These models are enabling the Co-Trustees to evaluate long-term drinking water supply options for the 14 communities.

AECOM Technical Services Inc. (AECOM) was retained to provide 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 environmental consultants for MPCA Superfund projects. They 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.

Project 1007

Investigation continues into an area known as Project 1007 in the north-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 area to the St. Croix River. It also uses a number of 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 transmitting PFAS across the 14-mile long corridor.

The investigation has led to a better understanding of PFAS movement from surface water into sediment and further into groundwater/drinking water resources. Sampling has confirmed the presence of PFAS-containing foam on surface water across the entirety of the corridor at significantly high concentrations. The public has been notified by MDH to avoid contact with the foam and wash it off if they come into contact with it.

Data collected are used in surface water and groundwater models. Together, the models are providing an understanding of the area's hydrogeology and are leading the feasibility of innovative technologies directly aimed at PFAS removal and potential destruction in surface water. This cleanup work is aimed at removing PFAS in surface water while we address other contaminated media, such as sediment and groundwater. In order to evaluate sediment removals, additional sampling will be conducted this year and provide an estimated volume of sediment targeted for excavation and disposal at a landfill. Groundwater evaluation is underway to understand the long-term cleanup options available to protect the drinking water resources of the area.

The progress report and supporting documents are available at:
<https://3msettlement.state.mn.us/project-1007>

Funded projects

Capacity grants

Some communities expressed a need for funding to support their participation on the technical subgroups. “Capacity grants” are provided to ensure that all communities could fully participate in the technical subgroups. The original \$25,000 grants became effective on December 1, 2018 and have since been amended, as needed, in order support the ongoing participation of the technical subgroup.

A total of \$680,000 has been provided to the following communities, townships, watershed districts and other organizations to extend their capacity grants to continue their work as part of the technical subgroup:

- | | | |
|------------------------------|-----------------------------------|---------------------|
| • Afton | • Lakeland | • St. Paul Park |
| • Cottage Grove | • Newport | • Washington County |
| • Grey Cloud Island Township | • Oakdale | • West Lakeland |
| • Lake Elmo | • Prairie Island Indian Community | • Woodbury |

Watershed districts and other organizations:

- Valley Branch Watershed District
- South Washington County Watershed District
- Middle St. Croix Watershed Management Organization
- Washington Conservation District
- Ramsey-Washington Metro Watershed District
- Minnesota Geological Survey

Expedited projects

The MPCA and DNR, through discussions with both the Government and 3M Working Group and Citizen-Business Work Group members, recognized there may be some time-sensitive opportunities for projects that are consistent with the agreement’s first priority. These projects could be implemented before the Conceptual Plan was completed, but would not be in conflict with potential outcomes of the plan. The following projects, totaling \$18,961,669, have a grant agreement in place with work currently in progress:

- City of Cottage Grove - River Acres Watermain Extension \$8,800,000
- City of Cottage Grove - Granada Avenue Watermain Extension \$2,250,000
- City of Lake Elmo - Stonegate Extension of Municipal Water Supply \$4,384,300
- City of Lake Elmo – 31st Street and Stillwater Blvd Extension of Municipal Water Supply \$549,100
- City of Lake Elmo - Hamlet on Sunfish Lake Extension of Municipal Water Supply \$2,712,200
- City of Oakdale Feasibility Study \$20,000
- City of Woodbury - Feasibility Study \$96,069
- Washington County - Well Sealing Cost Share \$150,000

The River Acres and Granada Avenue water main extensions in Cottage Grove will provide city water to 158 homes. The watermain extensions for each project is complete, with interior water connections and well sealing ongoing. Both projects expect full completion in Summer/Fall 2021.

The Stonegate and 31st Street water main extensions in Lake Elmo will provide city water to 72 homes. The watermain extensions for each project are complete, with interior water connections and well sealing ongoing. Both projects expect full completion in Summer/Fall 2021.

The Hamlet on Sunfish watermain extension is currently in final design, with construction planned to begin in Spring 2021. Final completion is expected in late 2021.

Both of the feasibility study projects in Oakdale and Woodbury are complete. Each was conducted by the cities to evaluate what potential short and long-term PFAS impacts may have on their respective municipal drinking water system. Results of each study have been beneficial in providing information to assist the agencies and Wood develop the Conceptual Plan.

Washington County provides financial assistance to residents to properly seal and abandon their unused or unneeded wells. To date, the funding provided to Washington County has provided assistance to seal 16 private wells impacted by PFAS.

Request for project funding

From May 26, 2020 through July 10, 2020, applications were accepted for second round of drinking water projects. Specifically, applications were accepted for projects that connect neighborhoods to existing public water systems while specifically leveraging road construction/improvement work planned for 2021 or 2022. The Co-Trustees recognized that some communities have to make decisions now to plan for road work occurring in 2021 or 2022. While the Conceptual Plan will likely include these projects as part of the long-term solution, the Conceptual Plan may not be completed in time to allow communities to incorporate them into their planned road work for next year.

The grant agreements for projects that will receive funding under this request are in progress. Under the Minnesota Data Practices Act, funding decisions are not public information until all grant agreements are signed and executed.

Ion exchange pilot project

A pilot project is underway in Cottage Grove to evaluate ion-exchange (IX) as a potential treatment technology for PFAS in the East Metropolitan Area. Currently, MDH has not approved IX as a treatment option for drinking water systems in Minnesota. Water quality across the East Metropolitan Area is similar enough that MDH expects to be able to use the data gathered from the IX pilot study to validate the design of IX PFAS removal for any of the affected east metro communities.

The pilot project will also compare IX with granular activated carbon (GAC) treatment in order to help local and state officials understand other considerations such the size of a treatment plant or cost due to frequency of filter change-outs. A \$750,000 grant was provided to the City of Cottage Grove to conduct the pilot study.

Temporary drinking water treatment systems

Under terms of the 2018 Settlement, 3M is to provide up to \$40 million, in addition to the \$850 million grant amount, over the first five years of the agreement for temporary drinking water treatment systems to ensure residents of the east metro have safe drinking water until the long-term actions are determined. These temporary treatment systems are to meet 3M's obligation to provide an alternative drinking water supply where public or private drinking water wells exceed MDH health criteria for PFAS, as outlined in the 2007 Consent Order between 3M and the MPCA.

Temporary municipal carbon treatment systems are currently operating in Cottage Grove, St. Paul Park and Woodbury. A temporary treatment system is currently being designed for one additional municipal well in Oakdale, in addition to the carbon treatment system already in place for two wells. Under terms outlined in the 2007 Consent Order, the MPCA seeks cost recovery of related expenses from 3M.

Expenditures

Expenses related to implementation of 3M Settlement: Original grant: \$850,000,000
This report covers the period July 1, 2020 – December 31, 2020

Balance: July 1, 2020 **\$744,810,251**

Revenue: Interest earned July 1, 2020 – December 31, 2020 **\$9,557,299**

Expenditures: July 1, 2020 – December 31, 2020

Category	Amount
<i>Settlement, Work Group and Technical Sub-Group costs</i>	
Workgroup Technical Assistance (Abt, Wood)	(\$1,307,520)
Project 1007 (AECOM)	(\$2,060,256)
MDH staff/technical support	(\$42,123)
Reimbursements	
Individual home connections	(\$33,924)
<i>MPCA/DNR staff and operational costs</i>	
MPCA/DNR staff/technical support	(\$373,660)
<i>Co-Trustee expenditures subtotal (as of December 31, 2020)</i>	(\$3,817,483)
<i>Grants</i>	
Funded projects/grant payments	(\$12,290,347)
Capacity grant payments	(\$48,181)
<i>Grant expenditures subtotal (as of December 31, 2020)</i>	(\$12,338,528)
<i>Total expenditures subtotal (as of December 31, 2020)</i>	(16,156,011)
Balance (as of December 31, 2020)	\$738,211,539