

Conceptual Drinking Water Supply Plan



A Resident's Guide



Long-Term Drinking Water Options for the East Metro Area

INTRODUCTION

This resident's guide outlines the Conceptual Drinking Water Supply Plan (the Plan) to provide safe and sustainable drinking water to East Metro residents and businesses impacted by per- and polyfluoroalkyl substances (PFAS) contamination. This work was completed as part of a 2018 Natural Resource Damage lawsuit Agreement and Order (Settlement) between the State of Minnesota and the 3M Company. Detailed information can be found in the full Plan: <https://3msettlement.state.mn.us/DrinkingWaterSupply>.

The Conceptual Drinking Water Supply Plan



Safe drinking
water is
available to
everyone

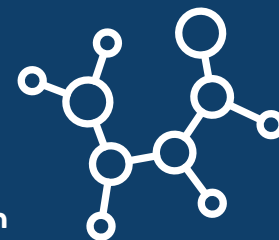
The Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Natural Resources (DNR) will use the Settlement for long-term projects to enhance the quality, quantity, and sustainability of drinking water for residents and businesses affected by PFAS in the East Metro Area. In addition, the MPCA and DNR will use the Settlement to restore and enhance aquatic resources, wildlife, habitat, fishing, and outdoor recreational opportunities.

The MPCA and DNR developed the Plan to help address safe and sustainable drinking water to the residents and businesses in the East Metro to meet their current and future water needs.



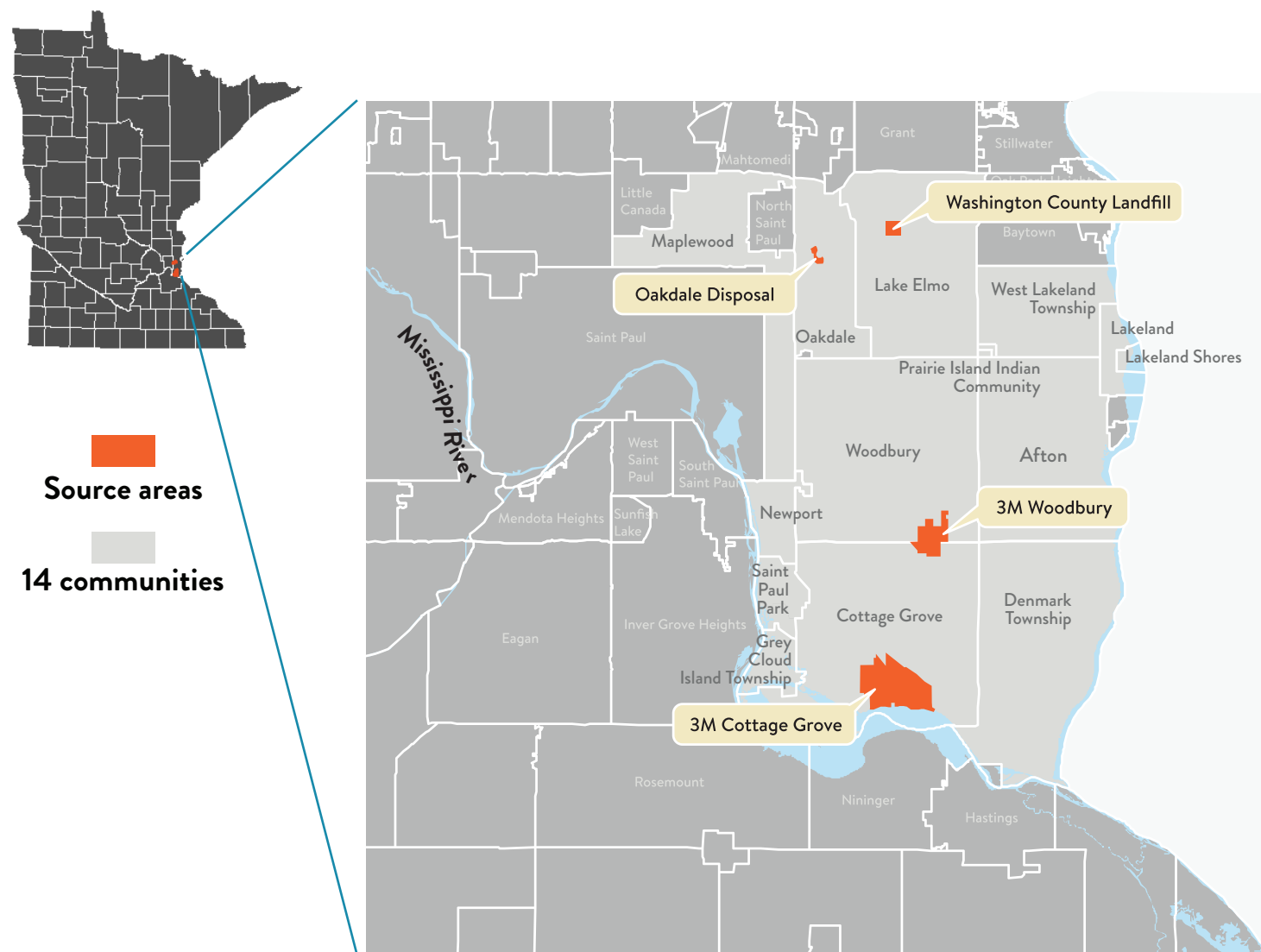
What are PFAS?

PFAS are a family of synthetic chemicals initially developed by 3M to make products that resist heat, oil, stains, grease, and water. Some types of PFAS can persist in the environment for long periods of time and bioaccumulate in humans and animals. These compounds are the focus of ongoing research. The Minnesota Department of Health (MDH) continues to monitor the growing science about PFAS to protect human health.



See [Minnesota's PFAS Blueprint](#) and their [What are PFAS](#) video for more information.





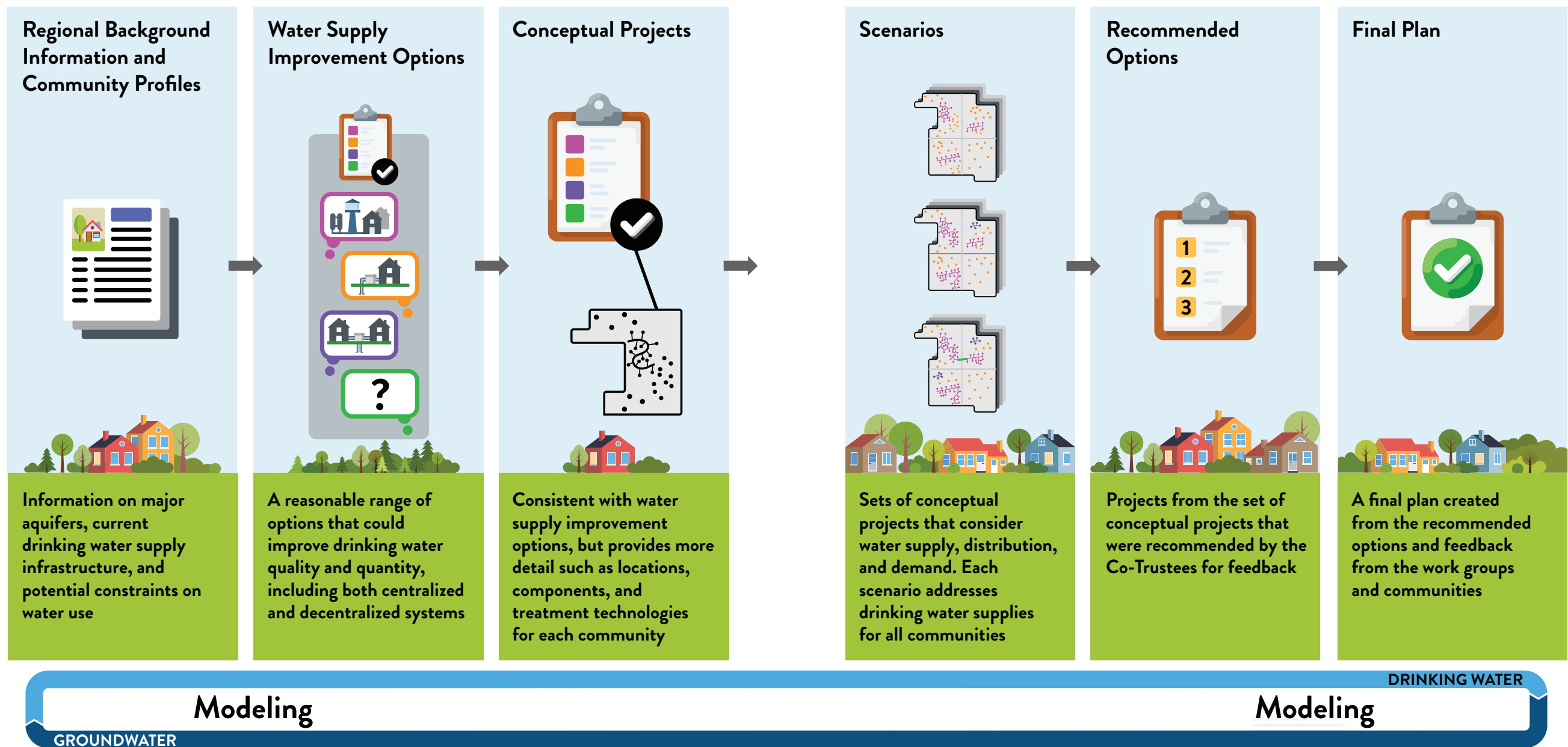
**The goal is to provide
safe and sustainable
drinking water**

The purpose of the Plan is to evaluate and recommend a set of projects that provide safe, sustainable drinking water to the 14 communities currently known to be affected by PFAS contamination in the East Metro Area, now and into the future.

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- A vertical timeline with six circular nodes, each containing a year. The nodes are connected by a vertical line. The text to the right of each node describes a key event in the timeline.
- 1950 to 1970s**: 3M disposes of PFAS at four sites identified on the map.
 - 2004**: PFAS contamination in drinking water wells is first identified in the East Metro.
 - 2007**: An agreement between the State and 3M requires 3M to investigate and take remedial actions to address the release of PFAS from their disposal sites.
 - 2010**: The State files a lawsuit against 3M for harm to natural resources as a result of PFAS released in the East Metropolitan Area.
 - 2018**: The State and 3M settle the lawsuit for \$850 million.
 - 2021**: Minnesota releases the Plan detailing how Settlement funds are being used to ensure safe and sustainable drinking water in the East Metro now and into the future.

2018 to 2021





How was the Plan determined?

The State refined a suite of options based on feedback received from work group members and the public to reach the final recommendation. The State, in partnership with the work groups, carried out the activities shown in the graphic above.



\$700 million

invested in east metro communities



Who's who

The road to the Plan involved collaboration from various stakeholders.

Ensuring a safe and sustainable drinking water supply into the future



Co-Trustees (MPCA and DNR)

Under state law, the State of Minnesota is the Trustee for all natural resources in the state, including air, water, and wildlife. The governor designated the MPCA and DNR commissioners as Co-Trustees for natural resources.



Government-3M and Citizen-Business work groups

Two work groups were established to help MPCA and DNR identify and recommend priorities and projects to be funded from the Settlement. The Government and 3M Working Group consists of a representative from the MPCA and the DNR, and representatives from the East Metro Area communities and 3M. The Citizen-Business Group is composed of a representative from the MPCA and the DNR, and 16 citizens, business, and nongovernmental representatives who live or work in the East Metro Area.



Technical subgroup

For technical assistance, the Co-Trustees formed the Drinking Water Supply Technical Subgroup – composed of technical experts to analyze options, deliver assessments, and provide advice for long-term options for drinking water supply and treatment.



The public

The Co-Trustees used feedback from the communities to develop the Plan through public meetings, an online survey, and by email. Thank you to those who commented! You served a vital role in the development of this plan.



The Plan

PFAS Health Index threshold at or above 0.5

- 1** **Maplewood, West Lakeland Township, Afton, Grey Cloud Island Township, Denmark Township**

 - Supply private wells with point of entry treatment systems (POETSs) - a whole home water filtration system - if over threshold
- 2** **Cottage Grove**

 - Treat 8 of 12 existing public wells
 - Replace 2 existing public wells with 1 new public well that will receive treatment
 - Add 2 new water treatment plants
 - Connect 156 homes
 - Supply other private wells with POETSs if over threshold
- 3** **Lake Elmo**

 - Supply drinking water from a combination of existing wells and new wells or an interconnect with Woodbury*
 - Connect 97 homes
 - Supply other private wells with POETSs if over threshold
- 4** **Lakeland, Lakeland Shores**

 - Connect 29 homes
 - Supply other private wells with POETSs if over threshold
- 5** **Newport**

 - One interconnect with Woodbury and one with Cottage Grove
 - Connect 3 homes
 - Supply other private wells with POETSs if over threshold
- 6** **Oakdale**

 - Treat 2 of 9 existing public wells and expand 1 water treatment plant
 - Replace 3 existing public wells with 3 new public wells that will receive treatment
 - Supply other private wells with POETSs if over threshold
- 7** **Prairie Island Indian Community**

 - Treat 1 existing public well
 - Add 1 new water treatment plant
- 8** **Saint Paul Park**

 - Treat 3 of 3 public wells
 - Add 1 new water treatment plant
 - Connect 6 homes
 - Supply other private wells with POETSs if over threshold
- 9** **Woodbury**

 - Treat 15 of 19 existing wells
 - Replace 1 existing public well with 1 new public well
 - Add 1 new water treatment plant
 - Connect 5 homes
 - Supply other private wells with POETSs if over threshold

**The Co-Trustees set aside sufficient capital funding for either an autonomous option (two wells within Lake Elmo's borders that likely will need treatment) or an interconnect between Woodbury and Lake Elmo, due to some uncertainty regarding their future water source.*



The Plan is... Comprehensive

Considers all private and municipal well users in all 14 communities

Safe and sustainable

Meets MDH health-based values for drinking water by addressing drinking water coming out of residents' faucets, as well as the source of drinking water

Resilient

Includes treatment for wells below the MDH health-based values so the Plan can absorb changes in those values or changing levels of PFAS in drinking water sources in the future

Flexible

Provides flexible funding so communities can adjust to accommodate their implementation preferences, along with time for each community to implement projects

The Plan’s key components

It is a long-term solution:

Health Index (HI)

An HI of 1 or greater indicates one or more PFAS are present in sufficient concentrations to potentially have health effects. An HI of 1 or greater triggers a health advisory from MDH. The understanding of PFAS and the ability to detect it is continually evolving. As a result, health-based values may change or new compounds may be used to calculate the HI, or the area of contaminated groundwater may change in the future. The Plan provides treatment for wells at or above 0.5 of the current HI, which means more wells will receive treatment. This helps the State be proactive and build a degree of resiliency into communities’ drinking water systems to better cover future potential changes.

Contingency funds

The Plan sets aside contingency funds to address a variety of factors, including treatment of additional wells should they become impacted in the future.

2040 population estimates

The Plan used 2040 water demand estimates to ensure that infrastructure built today will serve the East Metro in the future.

Granulated activated carbon (GAC)

The Plan includes using GAC treatment (very large-scale filters for community water treatment facilities and much smaller filters used to treat water from private wells) to remove PFAS. Communities may elect to use ion exchange (IX) instead of GAC if it is approved for use in Minnesota and it is less than or similarly expensive as GAC.

Neighborhood connections to municipal systems

In some areas the Plan calls for connecting homes to municipal systems, which reduces their risk of future PFAS contamination.

Groundwater protection

This includes money for drinking water protection projects. The fund will be used to reduce PFAS concentrations in groundwater, which can help reduce future treatment needs and costs, and will generally improve overall water quality.



SAFE AND RESILIENT

The Plan goes beyond treating those wells with a health advisory to build in resiliency due to future unknowns. A health advisory is issued by MDH when a well’s HI is above at least 1. An HI equal to or greater than 1 indicates possible combined health effects.



What's next?

Now that the Plan has been finalized, the Settlement moves into the implementation phase, in which communities will receive funding to implement projects. The State of Minnesota will also continue to evaluate and clean up PFAS contamination in the East Metro. This process has begun and will occur over a number of years. To check how the Settlement is progressing in your neighborhood, check the Minnesota 3M PFAS Settlement website: <https://3msettlement.state.mn.us/>.



For more information

Access the full Conceptual Drinking Water Supply Plan

<https://3msettlement.state.mn.us/DrinkingWaterSupply>

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