Water Treatment Solution Update

July 22, 2025

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Purpose and Process

Purpose :

- Provide the Residents of Mound with Safe and Affordable drinking water

Process:

- The solution is to construct a Water Treatment Plant that will remove Manganese
- We are pursuing a single water treatment plant - with a new well - trunk watermain upgrades between the Evergreen water tower and the Chateau water tower to maintain adequate service (fire flow, and volume)

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Purpose and Process

Process Breakdown:

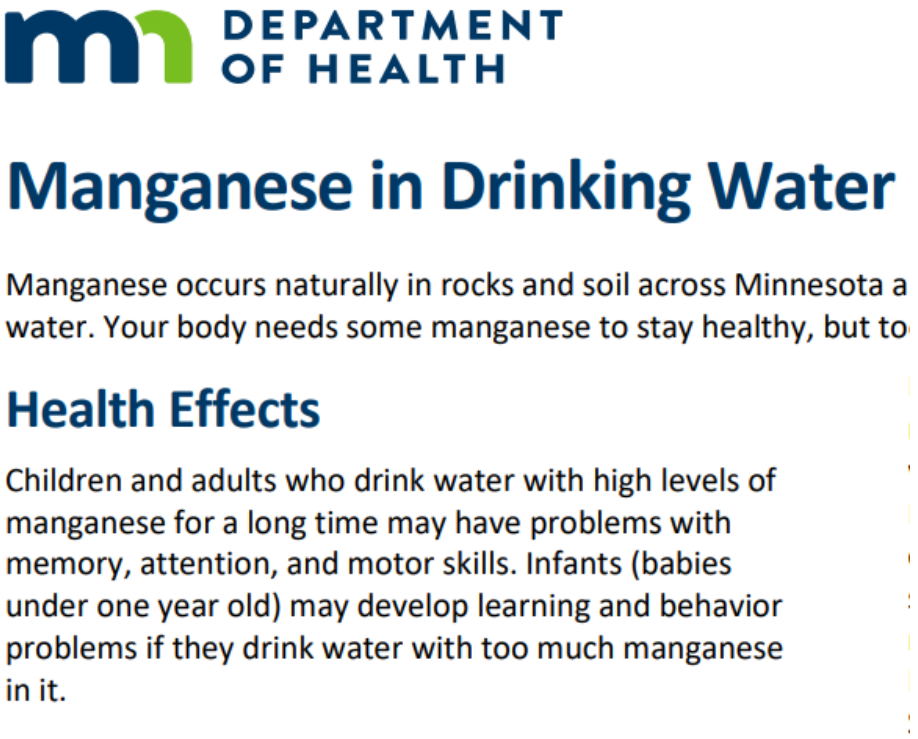
- Manganese notifications resulted in the do-not-drink order
- To remove manganese, we need a water treatment plant
- To date Mound has NOT had a water treatment plant, but has performed chemical injection of well water
- Treating for manganese will also remove iron, bacteria, and other contaminants
- At this time, we are NOT pursuing softening due to cost
- The type of plant that we are constructing is a package filter plant

Purpose and Process

Process Breakdown:

A package filter plant removing manganese, iron, and other bacteria will:

- Reduce the discoloration in the water that plagues the city's system during watermain breaks, flushing, and periods of low flow
- Extend the life of water softeners, faucets, filters, screens, valves and other plumbing and water piping
- Reduce the city's costs
- Maintain property values / resale values in Mound

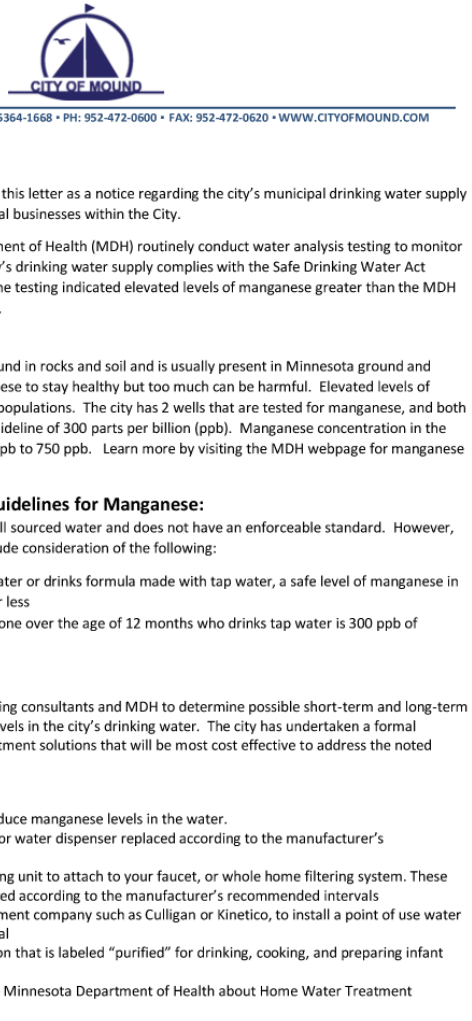


Guidance for Residents

- Minnesota Department of Health recommends residents do not drink the water – Manganese in the city's water source is above the Health Based limits of: 0.3 mg/l for infants and 1.0 mg/l for adults
  - Bottled water is recommended for infants

- Manganese absorbs poorly through skin, so bathing, showering and water contact is nearly zero exposure

- You MAY already be removing manganese
  - Maintain your water softener - including salt and resin media
  - We encourage water testing in your home
    - Test after filtering and water softening to gauge its effectiveness
      - RMB Environmental Laboratories, Inc. – Bloomington, MN
      - Tri-City/William Lloyd Analytical Lab – Bloomington, MN
      - Twin City Water Clinic, Inc. – Hopkins, MN



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2415 WILSHIRE BOULEVARD • MOUND, MN 55364-1668 • PH: 952-472-0600 • FAX: 952-472-0620 • WWW.CITYOFMOUND.COM

Dear Mound Residents,

As a City of Mound Resident, you are receiving this letter as a notice regarding the city's municipal drinking water supply which serves all residents, households, and local businesses within the City.

The City of Mound and the Minnesota Department of Health (MDH) routinely conduct water analysis testing to monitor water quality. Recent testing indicated the city's drinking water supply complies with the Safe Drinking Water Act primary drinking water standards. However, the testing indicated elevated levels of manganese greater than the MDH recommended health advisory guideline levels.

What is Manganese:

Manganese is a naturally occurring element found in rocks and soil and is usually present in Minnesota ground and surface water. Your body needs some manganese to stay healthy but too much can be harmful. Elevated levels of Manganese can pose a health risk to sensitive populations. The city has 2 wells that are tested for manganese, and both have tested above the MDH health advisory guideline of 300 parts per billion (ppb). Manganese concentration in the City of Mound source water ranges from 470 ppb to 750 ppb. Learn more by visiting the MDH webpage for manganese at http://bit.ly/MDHmanganese

Minnesota Department of Health Guidelines for Manganese:

Manganese is an unregulated compound in well sourced water and does not have an enforceable standard. However, the MDH recommended health guidelines include consideration of the following:

- If you have an infant who drinks tap water or drinks formula made with tap water, a safe level of manganese in your water is 100 ppb of manganese or less
- The safe level for consumption for anyone over the age of 12 months who drinks tap water is 300 ppb of manganese or less

City Solution:

The city is currently working with our engineering consultants and MDH to determine possible short-term and long-term treatment options to reduce the manganese levels in the city's drinking water. The city has undertaken a formal engineering study effort to determine the treatment solutions that will be most cost effective to address the noted levels.

Recommended Actions:

There are several things residents can do to reduce manganese levels in the water.

- Ensure that the filter in your refrigerator water dispenser replaced according to the manufacturer's recommended intervals
- Purchase a water filter pitcher, a filtering unit to attach to your faucet, or whole home filtering system. These systems require the filter media replaced according to the manufacturer's recommended intervals
- Working with a residential water treatment company such as Culligan or Kinetico, to install a point of use water system certified for manganese removal
- Purchase bottled water for consumption that is labeled "purified" for drinking, cooking, and preparing infant formula.
- More information is available from the Minnesota Department of Health about Home Water Treatment http://bit.ly/MDHhomewater

Timeline

MDH Manganese Notifications	*February 2021*
Resident Notifications	*March 2021*
Water Treatment Study Ordered	*March 2021*
Initial IUP / PPL Application	*April 2021*
Water Treatment Study Received	*June 2021*
Initial State Funding	*March 2023*
Initial Federal Funding	*June 2023*
Design Start	*July 2023*
Treatment solution construction	March 2025 - Ongoing
Begin Reimbursement from Appropriated funds	**October 2025**
2nd Trunk Watermain Construction	**Pending**
Well Construction	**Pending**
Plant Design Complete	**Pending**

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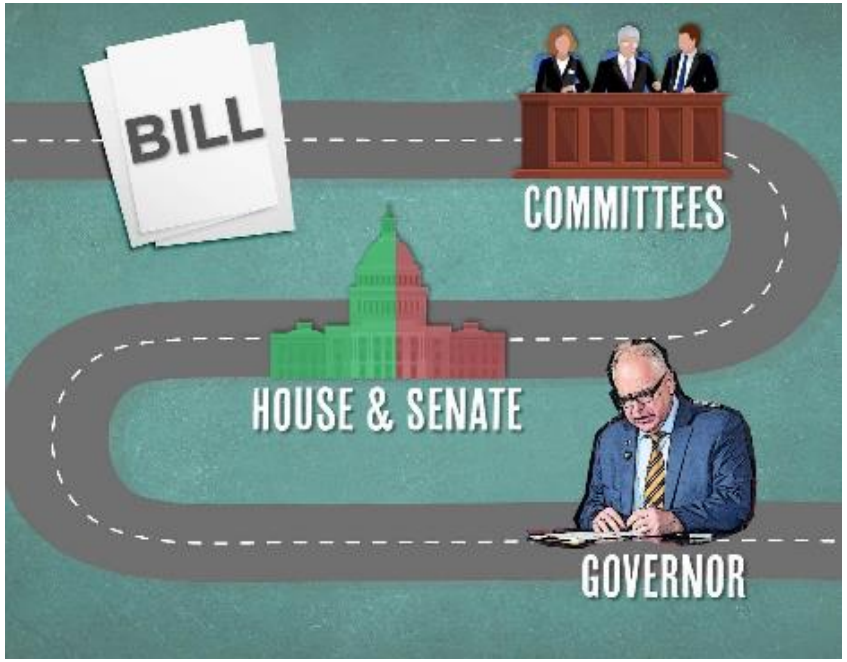
Project Financing

- $42 Million – Water Treatment Solution
- $10.3 Million – State of Minnesota Direct Appropriations
  - Administered by the Minnesota PFA
- $0.9 Million – Federal Direct Appropriations
  - Administered by the Federal EPA

- **~$30 Million Funding Gap Remaining**



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Current Funding Sources

- $10.3 Million in State of MN Appropriations
- $940,000 in Federal Appropriations
- Both sources require a local match, but this is not a 1:1 and other funds can be used to satisfy the match
  - Match requirements mean 100% funding is not achievable on the current path

Phased Methodology

- Parceled out the solution into “bite size” projects
- Created framework for reimbursement
- Designed the first 2 phases of trunk watermains
- Project 3: Well and equipment
- Project 4: Pumps and treatment equipment - targeted for the use of the Federal funds

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Funding Pursuits

- Continued applications to MN State Appropriations
  - Contingent upon infrastructure bills and financial health of the state
- Continued applications to Federal Appropriations
  - More directly affected by state of D.C. Politics, and the status of other MN based appropriation requests
- Continued IUP / PPL Applications
  - Ranking continues to rise
  - Manganese is a problem; however it's still not federally recognized as a primary contaminant
- Potential Special Programs
  - Ear to the ground for incoming monies to address manganese
- No certainty to be found in dollars or timeframes

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IUP / PPL – PFA Funding

State of Minnesota Ranks Project Funding requests for Drinking Water Revolving Fund monies

- IUP = Intended Use Plan
- PPL = Project Priority List
- Administered by the Public Facilities Authority (PFA)
- Combination of Grants and Low Interest Loans made available via the DWRF

	2022	2023	2024*	2025*
RANK	343	658	135	188
POINTS	10	5	15	15

*Fundable via Part B1

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Funding the Remainder of the Project

Below Market Funding Option Through Minnesota Public Facilities Authority (PFA)

City of Mound: Currently $30 Million Unfunded

- PFA Low Interest Loans:
  - 2-3% Interest
  - 20-Year Term
  - PFA Loan Advisor highly recommends an updated Utility Rate Study
  - We qualify for these because of IUP / PPL Ranking

- Average Residential Monthly Utility Bill Impact to Fund Water Treatment Plant (WTP):
  - Debt service
  - Operations and Maintenance

Average Monthly Residential Utility Bill	
Current Average	**Projected Monthly Increase to pay for WTP**
$117/Month	$44-$47/Month

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Recommended Next Steps

- Continue the programmed phased projects
  - As-Bid Prices trigger reimbursements from state and federal appropriations
  - Running clock for encumbrance of appropriated funds - July 2027
  - Construction only needs to be commenced, not completed, to meet that requirement
- Consider the funding options

Recommended Next Steps

- Continue seeking state and federal appropriations
  - Mound is submitted for $7.5 million FY26 Community Project Funding & $15 million FY26 Congressionally Directed Spending
  - Congress must pass budget by September 30

- Request a Proposal (RFP) for a Utility Rate Study/Water Treatment Plant Financing Options From Ehlers
  - Potential option to switch to monthly utility billing (versus quarterly)
  - Rate study is required for the use of PFA low interest loans
  - Rate study cost can be included in the loan
  - The study *could* be completed by Nov 1st

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Water Treatment Appendix

Additional Background Information

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