

2021 Water System Study

REQUEST FOR PROPOSALS

OCTOBER 6, 2020



Overview

- Background on Manganese
- Information within the Request for Proposals
- Next Steps



Background on Manganese

- What is manganese?
 - Manganese is a naturally occurring element that is in drinking water and can be found in rocks and soil.
- Regulations for safe levels of manganese in drinking water
 - Manganese has no regulations for treatment by PWSs
- Guidance for safe levels of manganese in drinking water
 - EPA (2003)
 - Manganese levels of 300 ug/L and higher for all
 - MDH (Updated in 2018)
 - Manganese levels of 300 ug/L or higher for everyone over 1 year old
 - Manganese levels of 100 ug/L or higher for infants 1 year old and younger

Northfield's Manganese Results

- Elevated level of manganese is 3 of 5 wells.
- All wells are needed for supplying the City and all wells supply all serviced properties.

| Well No. | Manganese Level (ug/L) | Average Manganese Level ug/L |
|----------|------------------------|------------------------------|
| 02 | 23.70, 40.2, 28.1 | 30.67 |
| 03 | 139.00 | 139.00 |
| 04 | 136.00, 119, 344 | 199.67 |
| 05 | 97.20, 83.6, 81.0 | 87.27 |
| 06 | 112.00 | 112.00 |



Health Effects of Manganese

- Children and Adults who drink water with manganese above the guidance level for a long duration may have problems with:
 - Memory
 - Attention
 - Motor Skills
- Infants one year old and younger who drink water with manganese above the guidance level may develop:
 - Learning problems
 - Behavior problems




- Based on manganese results, City to conduct a Drinking Water System Study in 2021.
- City will be sending out a Request for Proposals to qualified engineering firms.

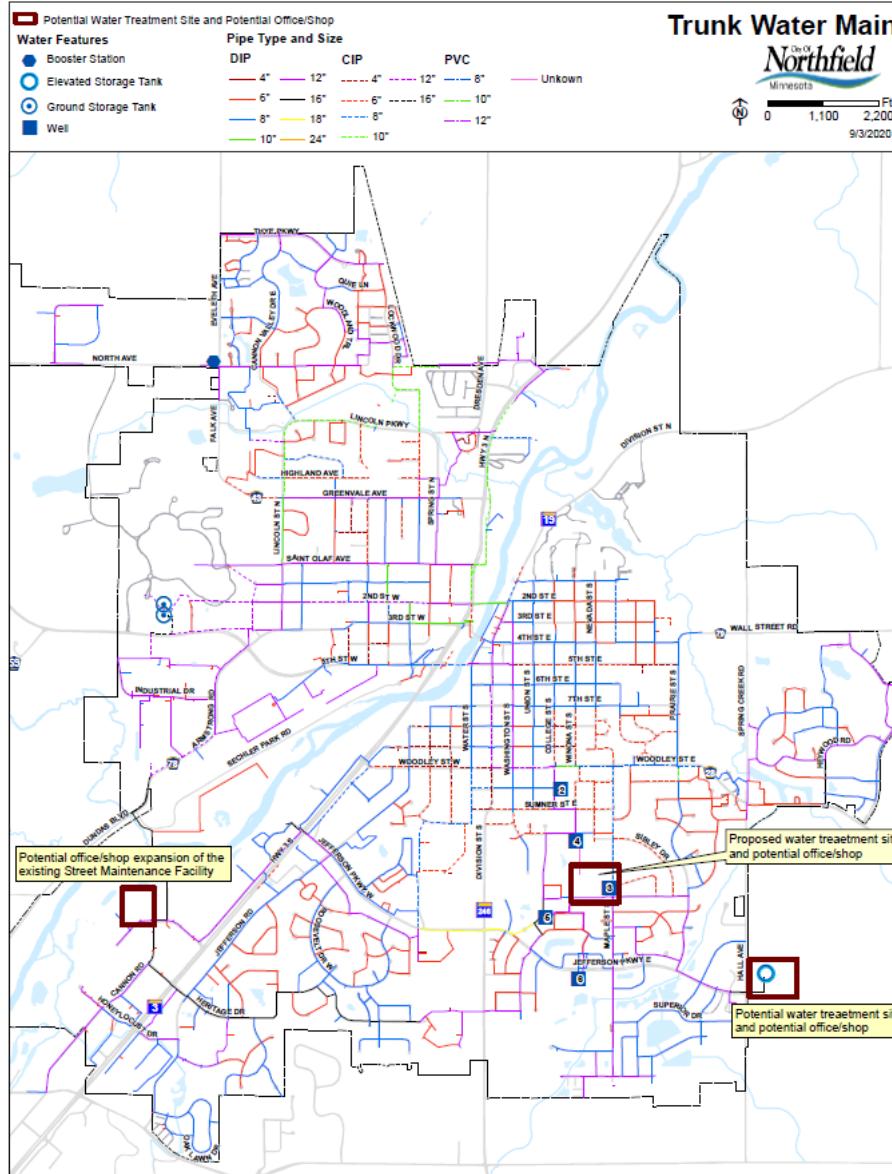


Items Included in RFP

Gather and Review Background Information

- Water Demand Projection
 - Evaluation of the Existing Water Supply
 - Evaluation of the Water Quality
 - Evaluate Water Treatment Options
 - Treatment Plant and New Source Water Wells Siting Study
 - Space Needs Assessment
 - Staffing Review and Analysis
 - Draft Report
 - Public Outreach
 - Final Report
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Trunk Water Main Map



Potential Sites if Water Treatment Plant is Needed



Next Steps

Tentative Timelines:

- October 6, 2020 City Council Authorizes RFP for Water System Study
- October 30, 2020 Proposal submittal deadline
- November 17, 2020 Council approve Contract with recommended firm
- January 1, 2021 Drinking water system study begins
- April 20, 2021 Draft report submitted
- May 11, 2021 Draft report presented to City Council
- July 1, 2021 Final report due
- July 20, 2021 Final Report presented and City Council Accepts Report
- Date TBD Two potential public engagement events held in person or virtual



Questions



Action Tonight:

Approve Motion authorizing RFP for Water System Study