DATE: January 23, 2026

TO: Monticello City Council

FROM: Matt Leonard, Public Works Director/City Engineer

RE: Water Treatment Plant Overview

The City is undertaking a major infrastructure project to construct a new water treatment plant to improve drinking water quality for the community.

Project Background

Monticello's municipal water system is supplied by five city wells which currently meet regulatory standards but have elevated levels of manganese, exceeding recommended health guidelines set by the Minnesota Department of Health (MDH). High manganese can pose health risks, particularly for infants and vulnerable populations. Due to these health risks, the MDH considers manganese to be an emerging contaminant, and the Environmental Protection Agency (EPA) has included manganese in the Contaminant Candidate List (CCL) to be studied for future federal regulatory enforcement.

Because of these factors, the City determined that constructing a centralized treatment facility is the most effective long-term solution for removing manganese from drinking water.

The goals of the project are to:

- **Improve water quality:** Remove excess manganese and iron from the municipal water supply prior to distribution.
- **Ensure public health & safety:** Meet or exceed MDH standards and reduce potential health risks for all residents.
- **Provide equitable service:** Deliver treated water equitably to all customers and reduce reliance on point-of-use home treatment or bottled water.

Project Funding

The City received $11M from the Minnesota State Bonding Bill to support the project. We've also applied for funding through Minnesota's State Revolving Fund, which may provide an additional $5M in grant funding for the project. The remaining project costs are anticipated to be financed through a low-interest loan through the MN Public Facilities Authority (PFA). The loan will be paid back through the City's Water Fund, which receives revenue from water fees rather than the tax levy.

Facility Planning

Preliminary planning began in 2023 with a feasibility study confirming the need for a treatment plant. AE2S was selected as the design firm and Rice Lake Contracting was selected as the construction manager at-risk (CMAR) for the project.

A pilot study was completed as part of the initial design phase to determine the treatment needed to meet Minnesota Department of Health (MDH) requirements and it was determined that conventional gravity filtration would meet these requirements.

The project was initially planned to be constructed as a 10 million gallon per day (MGD) facility, to meet current needs and future growth. However, MDH determined that PFA funds could only be used for the construction of a 7.5 MGD facility. Rather than pursue additional outside funding, the recommendation is to construct an 8 MGD facility which is still expected to provide sufficient capacity for 20 years, based on the growth projections anticipated in the Comprehensive Plan. The cost of for the additional 0.5 MGD in capacity is expected to be funded by the State Bonding Bill funds and not the PFA loan.

The capacity of the facility is not being designed to accommodate any additional large water users. If a large user is added to the community, we expect that an expansion of the facility could be needed prior to the expected capacity timeline. For this reason, the facility is being designed to cost-effectively accommodate future expansions and to minimize disturbance to the existing operations.

Also included in planning discussions was the possibility of Wells 1 and 2 being under the influence of surface water due to their proximity to the Mississippi River. Monticello has long operated based on the indications that water from these wells is fed by groundwater sourced from deep aquifers, but confirmation was critical since surface water treatment regulations are significantly more complex than groundwater treatment. Adjusting the treatment type would require additional capital and operational investment.

Following discussions with MDH, Monticello's wells are not considered to be under the influence of surface water from the river, and groundwater treatment as planned will meet the applicable regulations.

Additional Infrastructure Considerations

The construction of a new water treatment plant will require the extension of raw watermains to connect the centralized plant to the existing wells.

Existing raw watermains were installed along 4th Street, Cedar Street, and Ramsey Street as part of road reconstruction projects about 10 years ago. However the adequacy of the pipe sizing is directly influenced by the location of new wells. In particular, the 16" Ramsey Street watermain would need to be upsized if a new well is

located north of I-94. Knowing that redevelopment could result in Wells 1 and 2 needing to be relocated from Block 34, careful consideration was given to whether to plan to upsize the watermain with the construction of the water treatment plant. However, there are potential well locations south of I-94, so staff recommends not upsizing this section of watermain as part of the project. Leaving the 16" watermain in place will reduce capital costs and allow future watermain upgrades to be based on actual well capacity and only if new wells are eventually located in that area.

Raw watermains will need to be constructed between 7th Street and the new water treatment plant across I-94 as part of the project. These watermains are being sized to be able to convey flow pumped by additional wells north of I-94.

Timeline

Project design is nearing 90% design and MDH review of the plans is anticipated to occur in April, with bidding occurring in May and construction starting in June of 2026. Given the large scale of the project construction isn't anticipated to be complete until fall of 2028.