



Tilton and Northfield Water District
2022 Annual Meeting
Warrant Article
New Water Filtration Plant

WARRANT ARTICLE

To see if the District will vote to raise and appropriate the amount of \$6,500,000.00 to construct a new water filtration plant and 3rd well. This project would be funded by an American Rescue Plan Act Grant in the amount of \$1,950,000.00 and a loan from the Drinking Water State Revolving Loan Program through the State of NH, Dept. of Environmental Services in the amount of \$4,550,000.00. Recommended by the Commissioners. (Requires 3/5 Ballot Vote)

Why are We doing this project?

Changes to NHDES Manganese Health-Based Standards for Drinking Water:

Existing conditions and NHDES Regulations:

- Existing well water has manganese levels as high as 0.31 mg/L and 0.38 mg/l of iron.
- Present regulatory Secondary Maximum Contaminant Level of 0.05 mg/L for manganese of 0.3 mg/L for iron.

Regulations:

- The EPA has recommended a lifetime health advisory (LHA) for manganese of 0.3 mg/L
- New Hampshire's ambient groundwater quality standard (AGQS) for manganese was revised from 0.84 mg/L to 0.3 mg/L in December 2020 (effective January 1, 2021).

Upcoming Regulations:

- The New Hampshire Department of Environmental Services (NHDES) is currently developing rules to require public water systems notify customers when manganese exceeds 0.3 mg/L. Because short-term exposure to manganese is considered a health risk to infants below 12 months old.
- The effective date for NHDES' new manganese public notification requirements is anticipated to be January 2023.
- For more information regarding the health risks regarding manganese call the TNWD and they can provide contact information for NHDES staff that can explain this in more detail.

What has the TNWD to address the Manganese Issue to date:

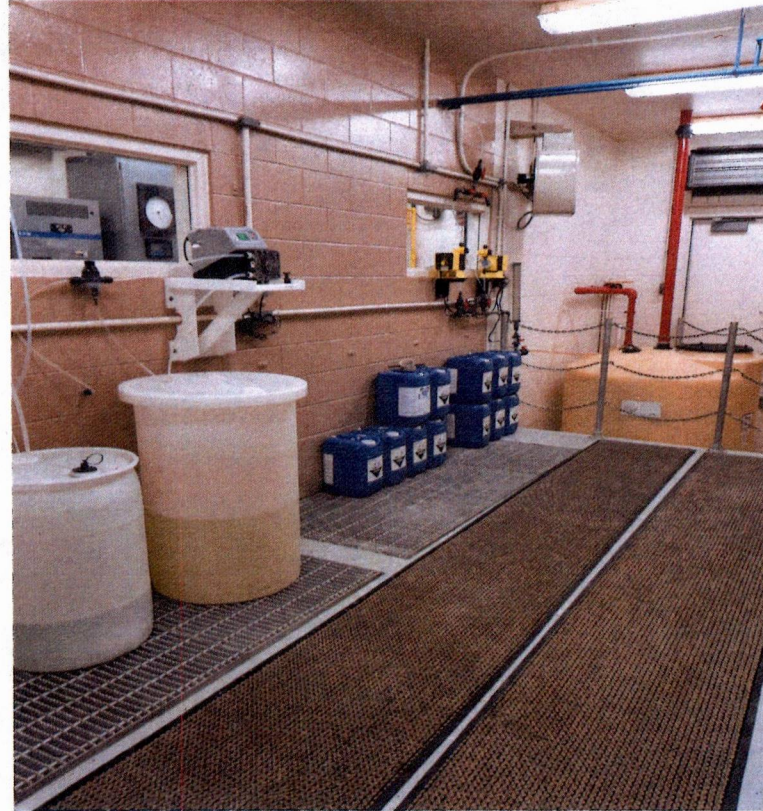
TNWD has initiated a plan to address the anticipated regulation changes for manganese, including:

- 2019 Developed a Capital Improvement Plan that included design and construction of a future Water Treatment Facility (WFP)
- 2019 Initiated a Water Rate Study plan (Completed in 2020) for the funding of a planned WFP. Developed an estimated cost of \$6,500,000 for a new Water Treatment Facility to be constructed on the existing Rte. 140 Well Facility site in Northfield, NH.
- 2020/2021 Approved for NHDES SFR Loans and grants to fund the planned WFP. Present commitments from NHDES includes \$1,950,000 in grants and \$4,550,000 in low interest (1.256 %) loans.
- 2021 Contracted with Stantec to perform a Water Treatability Study to begin the process of identifying appropriate water treatment technology options. Submitted to NHDES.
- 2022 Contracted with Stantec to team with a water treatment pilot testing contractor to test a number of water treatment technologies. Submitted to NHDES.
- 2022 Contracted with Stantec to perform the site survey and soil borings
- 2022 Stantec submitted the Environmental Report for the project to NHDES.

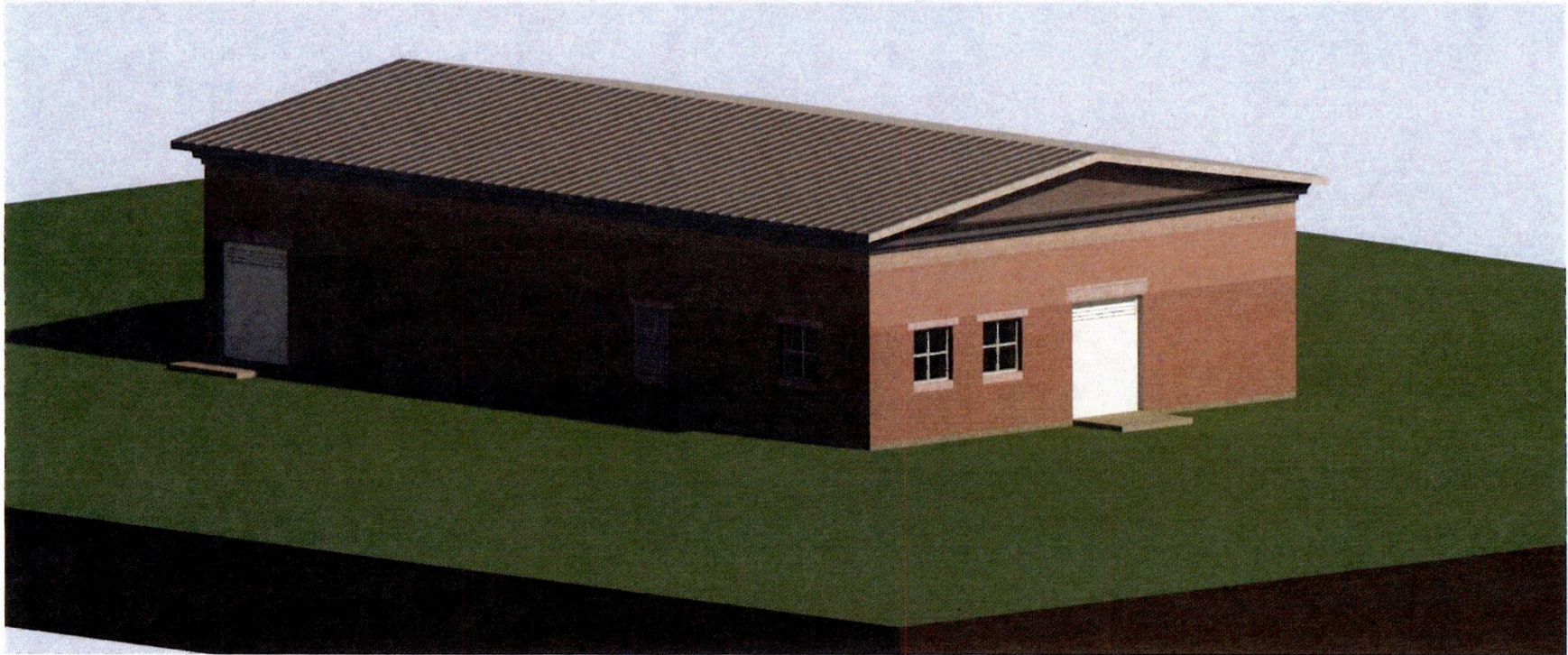
Existing Well Facilities at RTE 140 Site



Existing Chemical Storage and Pumps



New Iron and Manganese Removal Plant Concept Drawing – Located on the Rte. 140 site in Northfield



New Green Sand Filter or Aeration Filter WFP



TNWD's Plan Going Forward:

- TNWD will be utilizing Well No. 1 due to its lower levels of manganese (between 0.1 and 0.3 mg/l)
- Apply for a NHDES GW Trust Grant for the WFP – potentially another 10% – 20% of the project costs.
- Complete the final NHDES Grant application to begin receiving funds.
- Advance the design of the WFP for Bidding and construction in early 2023.
- Proceed with construction and put the WFP into service in late 2023 or early 2024 with final completion in 2024.
- Continue communication to TNWD Users.

Ongoing Communication:

- New manganese limit exceedance public notifications anticipated to be required as of January 1, 2023.
- Approved grants to reduce the financial burden on the users.
- Schedule updates.
- Ultimately an open house at the new WFP.

WARRANT ARTICLE

QUESTIONS?