

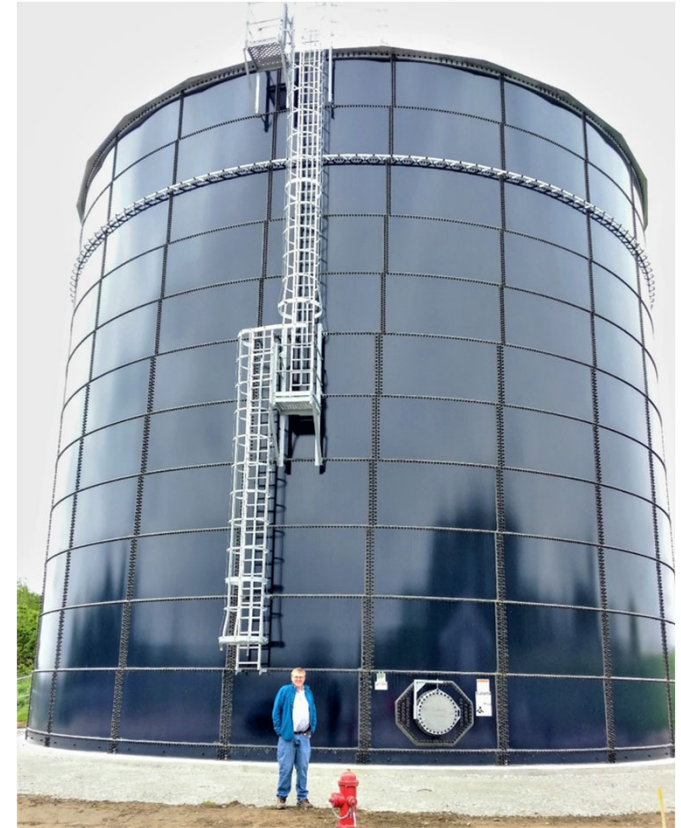
HVWP Water Distribution & Storage Improvement Project

PROJECT INFORMATION PACKAGE

*HVWP Open House, South Pump Station
May 4-5, 2022*

Project History Highlights

- 2015:** HVWP recognizes need for improvements. Budget Committee recommends CIP.
- 2016-17:** 10-year CIP and 5-year rate projections initiated annually. Tank, water main, pump station and control/alarm projects identified as priorities in CIP, in agreement with NHDES directives (tank = top priority). Search for new tank site (over a dozen sites). Quarry site selected early 2017.
- 2017-18:** Easements (DOT/Town/PSNH/private). Site/subdivision plans. \$1.85M NHDES SRF loan (2%, 20yr) secured for quarry tank, associated water main out to RT3A, and demo of old tank.
- 2018:** Bidding/contracts. Scope reduced to quarry tank and main at Pinnacle/Vista due to cost. Loan extension secured. Initial construction started, includes successful 400' boring 40' under I93. \$728K grant application to NH DWGTF (unsuccessful) for remaining water main.
- 2018-19:** \$20K NHDES Asset Management Plan (AMP) grant complements project - included flow testing, missing valve location and drone mapping of distribution system, plus GIS implementation.
- 2019:** Initial construction completed. HVWP suggests water projects inclusion for RT3A TIF and works jointly with Town to resubmit grant application to NH DWGTF (\$744K, unsuccessful).
- 2020:** \$839K SRF loan application for remaining water main (unsuccessful). A detailed engineering study of future water system capacity completed voluntarily by HVWP confirms the need for ongoing source, storage and distribution projects. \$7K NHDES energy audit grant received; audit indicates source-storage balancing may yield energy savings pending further studies.
- 2020-21:** AMP Update completed voluntarily by HVWP - hydraulic modeling of distribution system shows where "imbalances" are and prioritizes 7 miles of water main improvements @ \$12M, including the unfinished quarry tank main. Also shows old tank is critical for fire flow on east side. NHDES lists old tank as "Significant Deficiency" due to coating failure.
- 2021:** Engineering evaluation of old tank – replacement recommended. \$2M Congress Community Project grant and \$2.2M SRF loan applications (both unsuccessful) for old tank replacement plus unfinished quarry tank main. Completed complementary 5-year, \$500K+ investment in proactive update of pump stations and system controls/alarms which ties in tanks and mains.
- 2021-22:** Repackaged old tank – unfinished main as TIF project. Successful pre-authorization for \$1.2M DWGTF loan (1.3%, 20yr) and \$1.2M+ in grants from various sources. Successful second \$20K AMP grant application to further update AMP to include tanks and pump stations.



The Quarry ("Pike") Tank. This 1MG glass-fused-to-steel water storage tank went on-line without incident in May 2019. It is 59' wide and 51' tall. Treated water is pumped into the tank from the Pinnacle Pond area. The tank feeds the water into the Village under I93 by gravity.

Hooksett TIF District - Phase I Water Distribution & Storage Improvement Project

2021-22 NH Drinking Water & Groundwater Trust Fund (DWGTF) and NHDES American Rescue Plan Act (ARPA) Funds Applicant

This project consists of the construction of (a) 1,800 linear feet of distribution system improvements in the Vista Drive area and (b) a new 0.29 million gallon capacity glass-fused-to-steel tank and 700 linear feet of associated transmission main on the Daniel Webster Highway. The project is the first of three major drinking water components of the RT3A Tax Increment Financing (TIF) District economic development initiative sponsored by the Town of Hooksett.

The Precinct has been partnering with the Town, Sewer Commission, local businesses, committees, residents and area developers to encourage TIF-based infrastructure projects. TIF can be used to fund improvements that benefit the whole community by attracting new development, revitalizing blight, and/or enacting quality of life projects. This can significantly expand the tax base and provide more or easier access to services for residents, with less financial impact.

Hydraulic modeling studies completed in 2020 as part of the Precinct's asset management program showed that distribution improvements are needed in the Vista Drive area to relieve a bottleneck that is critically restricting flow from the existing West Tank and nearby wells. The Vista Drive area water main replacement/extension was listed as a Top Priority in the Precinct's March 2021 Asset Management Plan Update. This area is the closest and primary source of water and fire protection for the TIF District. As noted by the Town in its recent MOU with the Precinct, a direct connection to the area is imperative to efficiently transmit water to the TIF District.

The existing Thompson Corner Tank is critical to water system hydraulics, not only for fire flow purposes but also for engineered redundancy, emergency resiliency and operational flexibility. It is inextricably linked to the operation of the West Tank and the TIF District. Unfortunately, it has deteriorated to the point where it needs to be replaced. The new, slightly larger replacement tank that is proposed will, when completed, allow the West Tank to be taken off-line as needed for O&M or emergencies; provide backup storage for the TIF district; allow the West Tank to operate at 100% capacity; and improve overall energy efficiency by increasing off-peak operations.

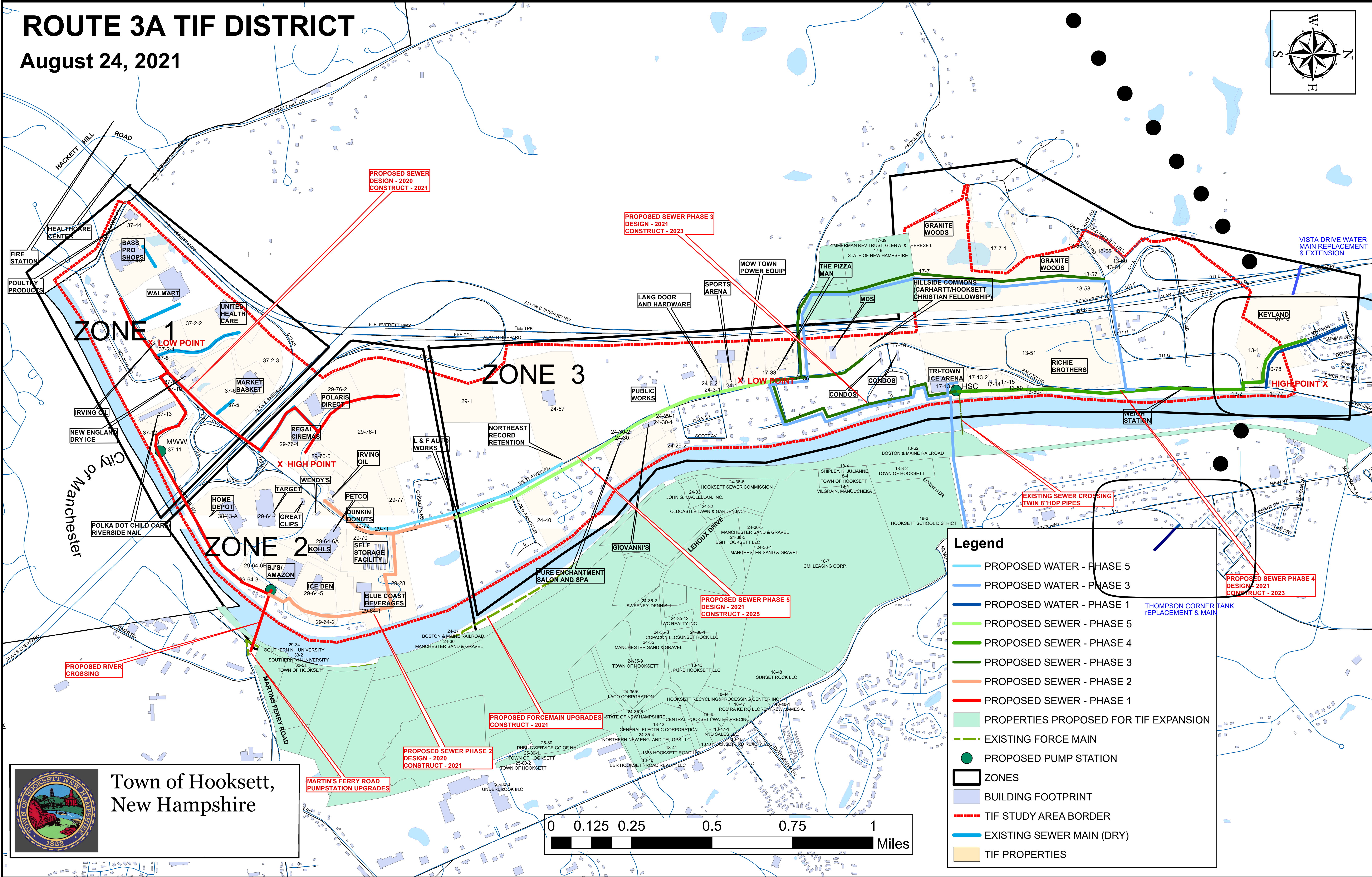
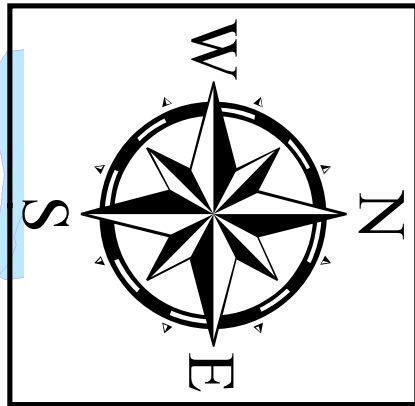
Replacement of the existing Thompson Corner Tank would also serve as the permanent action plan to address a Significant Deficiency outlined by the New Hampshire Department of Environmental Services (NHDES) in October 2020. The deficiency identified was severe deterioration of the coating on the inside and outside of the tank. NHDES is requiring that funding be authorized by March 2022 and a tank construction contract be awarded by October 2022.

The estimated cost to replace the Thompson Corner tank and install the Vista Drive area water main is \$2,464,000.

HVWP 2022 TRUST FUND PROJECT AREA

ROUTE 3A TIF DISTRICT

August 24, 2021



LEGEND

PROPOSED 12" WATERLINE

EXISTING 16" A.C.P. WATERLINE

HVWP Water Distribution & Storage Projects

Pinnacle Street Area: 2018-2023

BROWN

ENGINEERING

/SURVEYING

civil engineers, surveyors
construction managers
345 NH ROUTE 104, SUITE 7
NEW HAMPTON, NH 03256
Tel: (603) 744-1044
www.browngineeringllc.com

OVERALL PROPOSED WATERLINE PLAN

TAX MAP 12 LOT 8

STORAGE TANK REPLACEMENT PROJECT

HOOKSETT, NEW HAMPSHIRE

OWNED BY

HOOKSETT VILLAGE WATER PRECINCT

7 RIVERSIDE STREET, HOOKSETT NH, 03106

SCALE

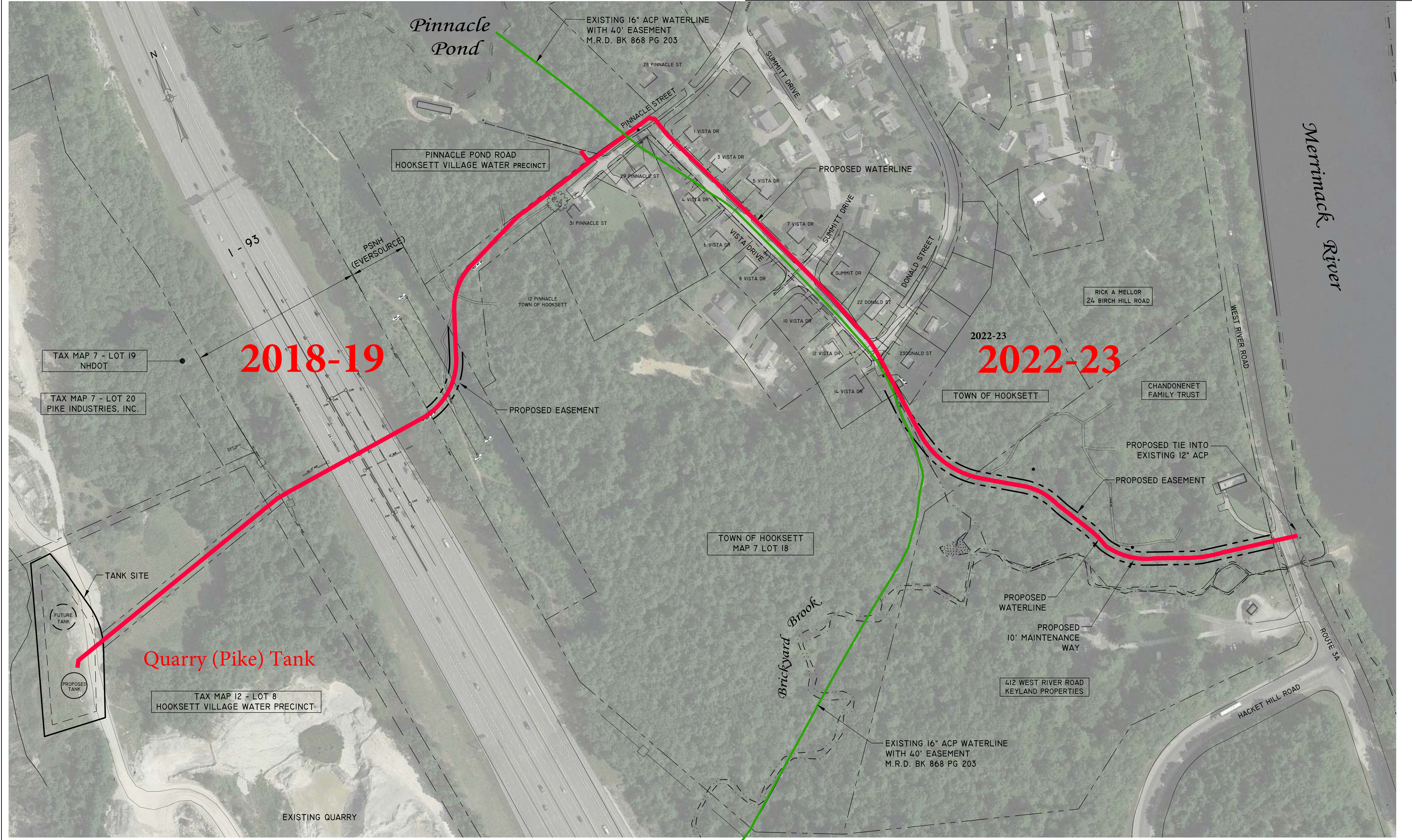
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(ft)

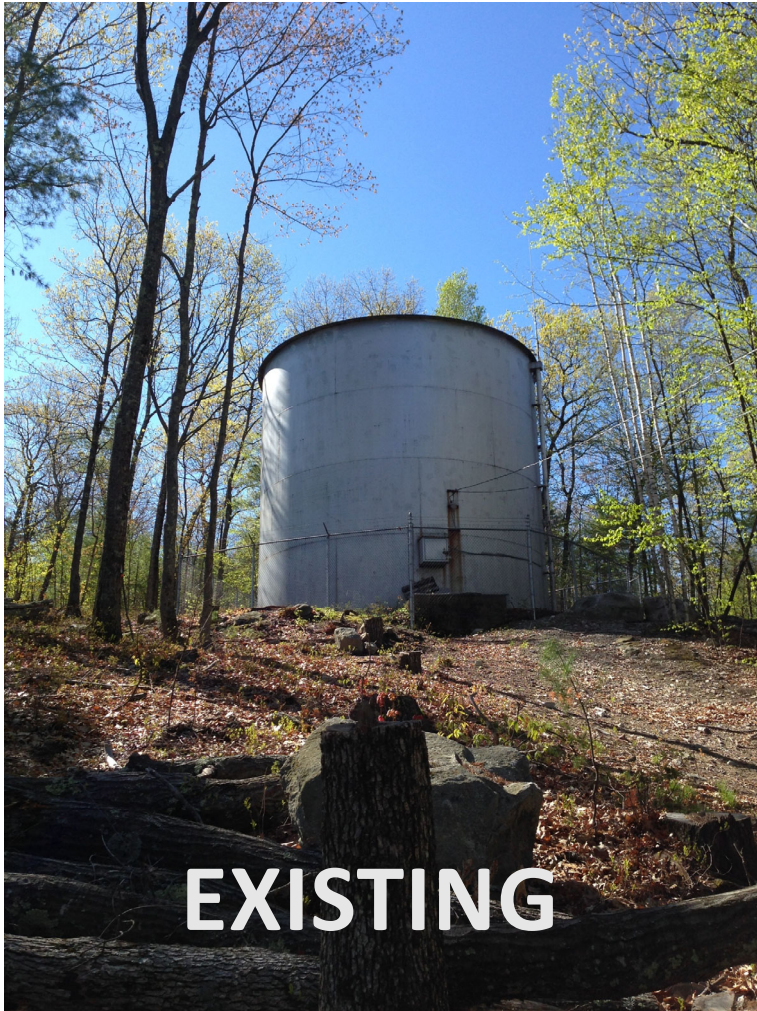
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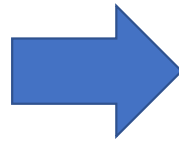
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HVWP Water Distribution & Storage Improvement Project



Old Tank
(2022-23)



“Why Does the Project Matter?”



PRESSURE

FLOW



QUALITY

“Why Does the Project Matter?”

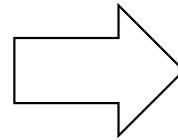
LOCAL GROWTH/TAXES

OPERATIONS EFFICIENCY

REGULATORY COMPLIANCE

EQUIPMENT REPLACEMENT

PLANNED MAINTENANCE



Savings



Revenues

“Why Does the Project Matter?”



Example of a flow-tested and marked hydrant at Donati Park. Blue indicates estimated flows >1,500 GPM at 20 PSI. Markers are reflective to improve nighttime emergency visibility.

BLAZE DAMAGES TWO-FAMILY HOME IN MANCHESTER -

Firefighters challenged by weather conditions, the cause of the fire is under investigation.

Union Leader, January 18, 2021

5-ALARM BLAZE INJURES THREE, INCLUDING 2 FIREFIGHTERS -

Fire destroyed building, which housed Cobblestone Ale House.

Union Leader, January 10, 2021

FATAL FIRE -

A baby was among the six rescued from burning apartment building.

Union Leader, November 8, 2021

FIRE PROTECTION

Project Next Steps*

JAN. 2022:	Budget Committee meeting.
FEB. 2022:	HVWP Annual meeting.
SPRING 2022:	Final NH DWGTF/NHDES ARPA applications/agreements. Governor/Executive Council approvals. Bidding/agreements (Vista Dr - RT3A water main).
SUMMER/FALL 2022:	Water main construction.
FALL/WINTER 2022:	Bidding/agreements (Old tank replacement).
SPRING 2023:	Tank construction.

**Note: All funding and construction scheduling is tentative and subject to change.*