



# Town of Enfield

## PROPOSED 2020 WATER SYSTEM RELIABILITY IMPROVEMENT PROJECT

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HORIZONS ENGINEERING, INC

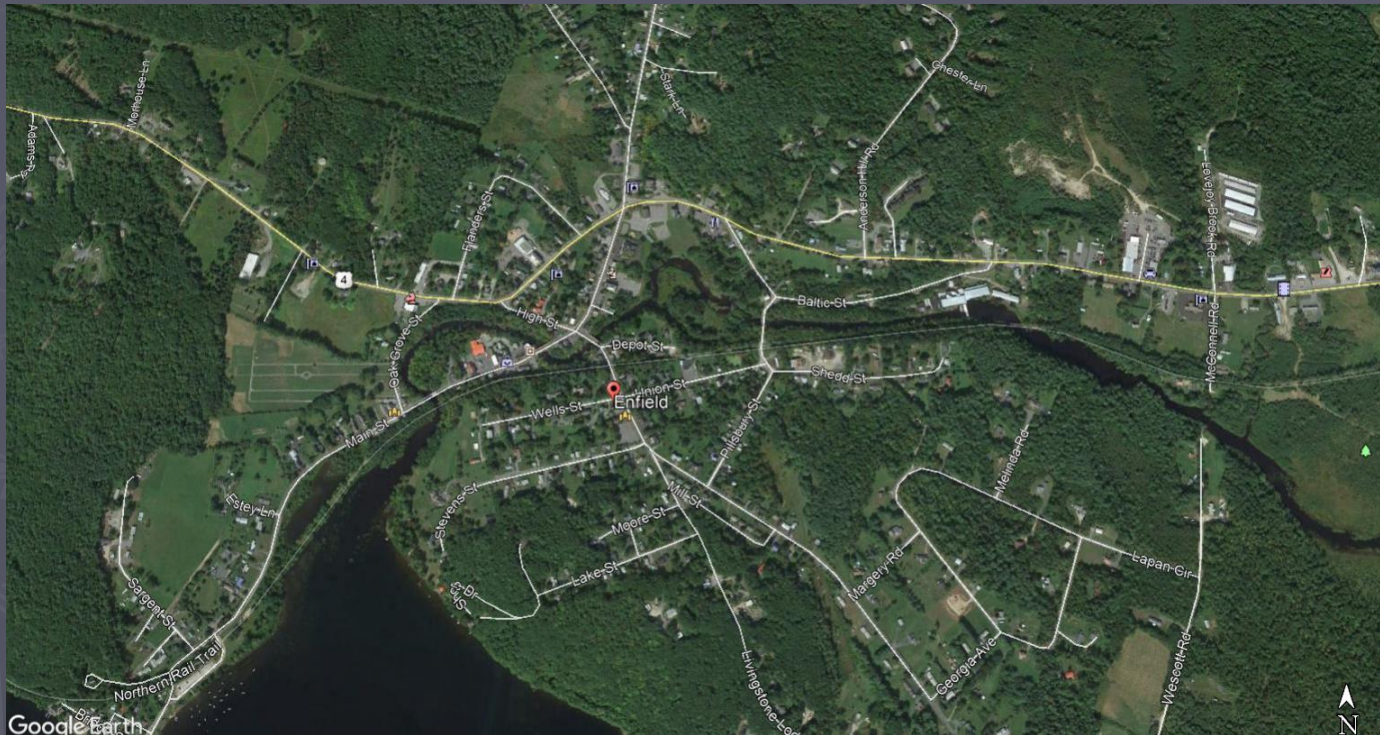
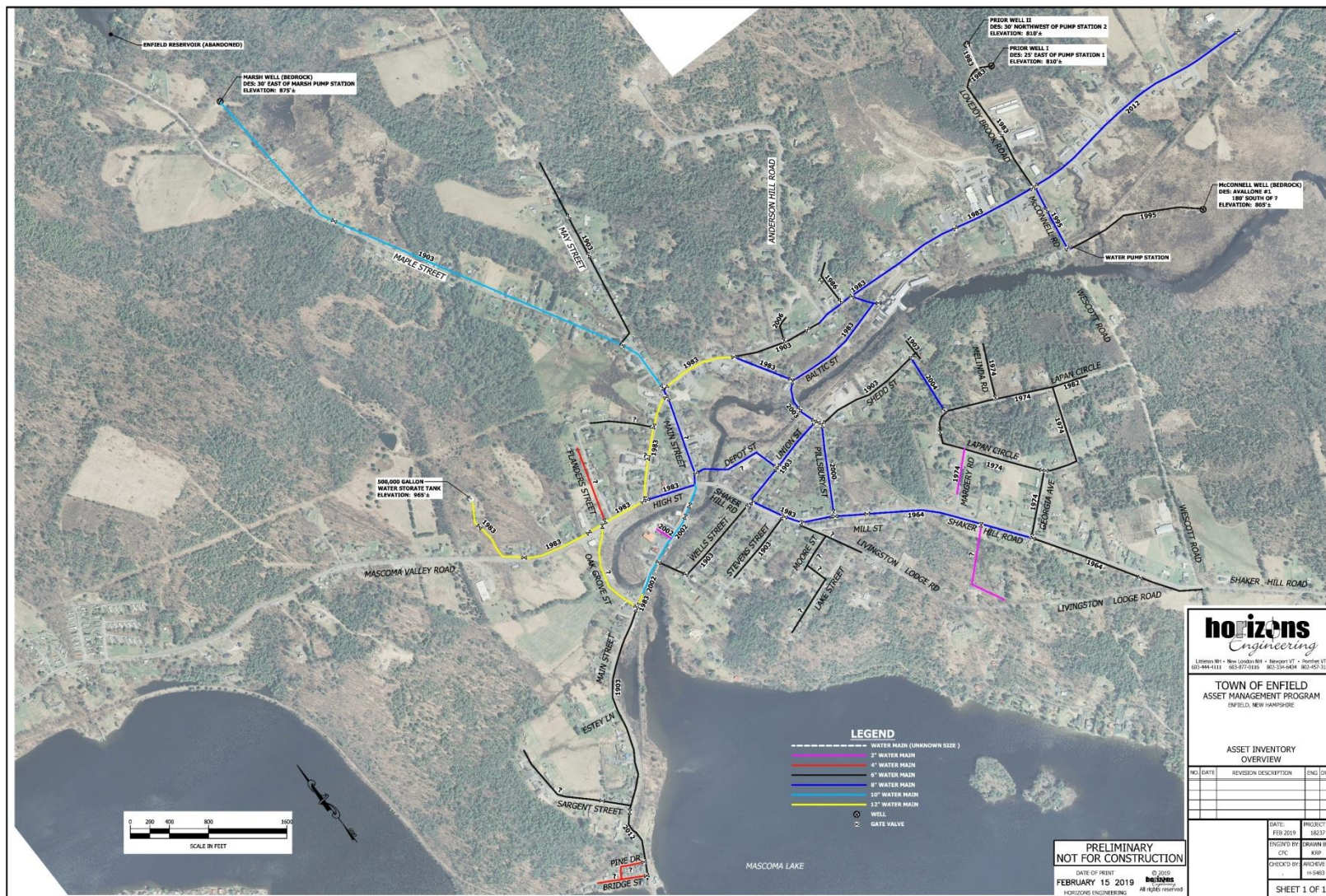


Photo Source: Google Earth

# PROJECT BACKGROUND

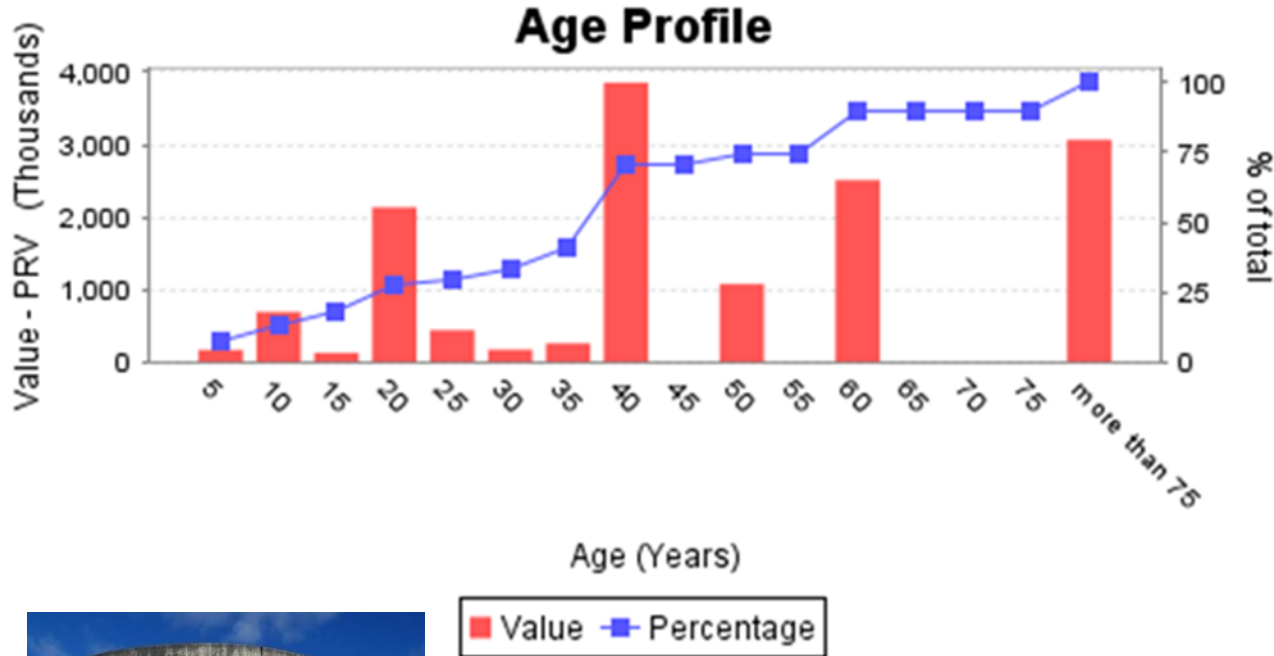
- ▶ Water System Asset Management Plan completed in 2019.
- ▶ Goals of the exercise were to identify system deficiencies and develop a plan to maintain system reliability while minimizing budget impacts.
- ▶ Plan reviewed system condition, level of service goals, and rate structure
- ▶ Results included recommendations for incremental upgrades to system infrastructure, including source improvements and prioritized plan for water main replacement.







# ENFIELD'S AGING SYSTEM





# Proposed 2020 Project Scope

## WATER SOURCE IMPROVEMENTS:

- ▶ Drill a test well at the Marsh well site to determine if a second source can be developed. If so develop and permit a new well at the site
- ▶ If Marsh site is not viable for a second source evaluation the potential for upgrades to the Prior site including well rehabilitation or construction of a replacement well

## WATER MAIN REPLACEMENT:

- ▶ Replace 1903 vintage water main on Maple Street and May Street



**Preliminary Opinion of Probable Cost**  
**Town of Enfield**  
**New Well and Distribution Improvements**  
**Prepared by Horizons Engineering, Inc.**  
**Sep-19**

<u>ITEM</u>	<u>UNITS</u>	<u>NO. UNITS</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>Construction Items</u></b>				
<b><u>Well</u></b>				
Hydrogeological Work	LS	1	\$40,000.00	\$40,000.00
New Well Construction	LS	1	\$200,000.00	\$200,000.00
Pump Station Upgrades	LS	1	\$10,000.00	\$10,000.00
			Subtotal Well	\$250,000.00
<b><u>Distribution Main</u></b>				
Maple St Well to Shed and May to Rte 4	LF	2300	\$200.00	\$460,000.00
Maple St Shed to May	LF	3200	\$200.00	\$640,000.00
May Street	LF	2106	\$200.00	not included
Stevens Street	LF	761	\$200.00	not included
Union Street	LF	1108	\$200.00	not included
Shedd Street	LF	1209	\$200.00	not included
Shed St Apt	LF	116	\$200.00	not included
Shedd St Apt	LF	150	\$200.00	not included
Wells ST	LF	1284	\$200.00	not included
Main ST	LF	2155	\$200.00	not included
Rte 4	LF	952	\$200.00	not included
			Subtotal Distribution	\$1,100,000.00
			Construction Subtotal	\$1,350,000.00
			15% Contingency	\$216,000.00
			Construction Cost	\$1,566,000.00
			Legal	\$10,000.00
			10% Engineering Design and Permitting	\$135,000.00
			10% Engineering Bidding and Construction Svcs	\$135,000.00
				\$1,846,000.00
			<b>ROUNDED TOTAL PROJECT COST</b>	<b>\$1,850,000.00</b>

# Estimated Financial Implications for Rate Payers

- ▶ 480 metered users on the system
- ▶ \$1.8 million loan (maximum, could be \$1 million if 45% USDA grant funding is secured)
- ▶ 30-year term; anticipated 2.5% interest rate
- ▶ Annual debt service payment = \$85,000
- ▶ Average annual cost/user = \$177 (\$44/quarter)