

# ALTERNATIVES SUMMARY

## Groton Water System Extension

### Benefits

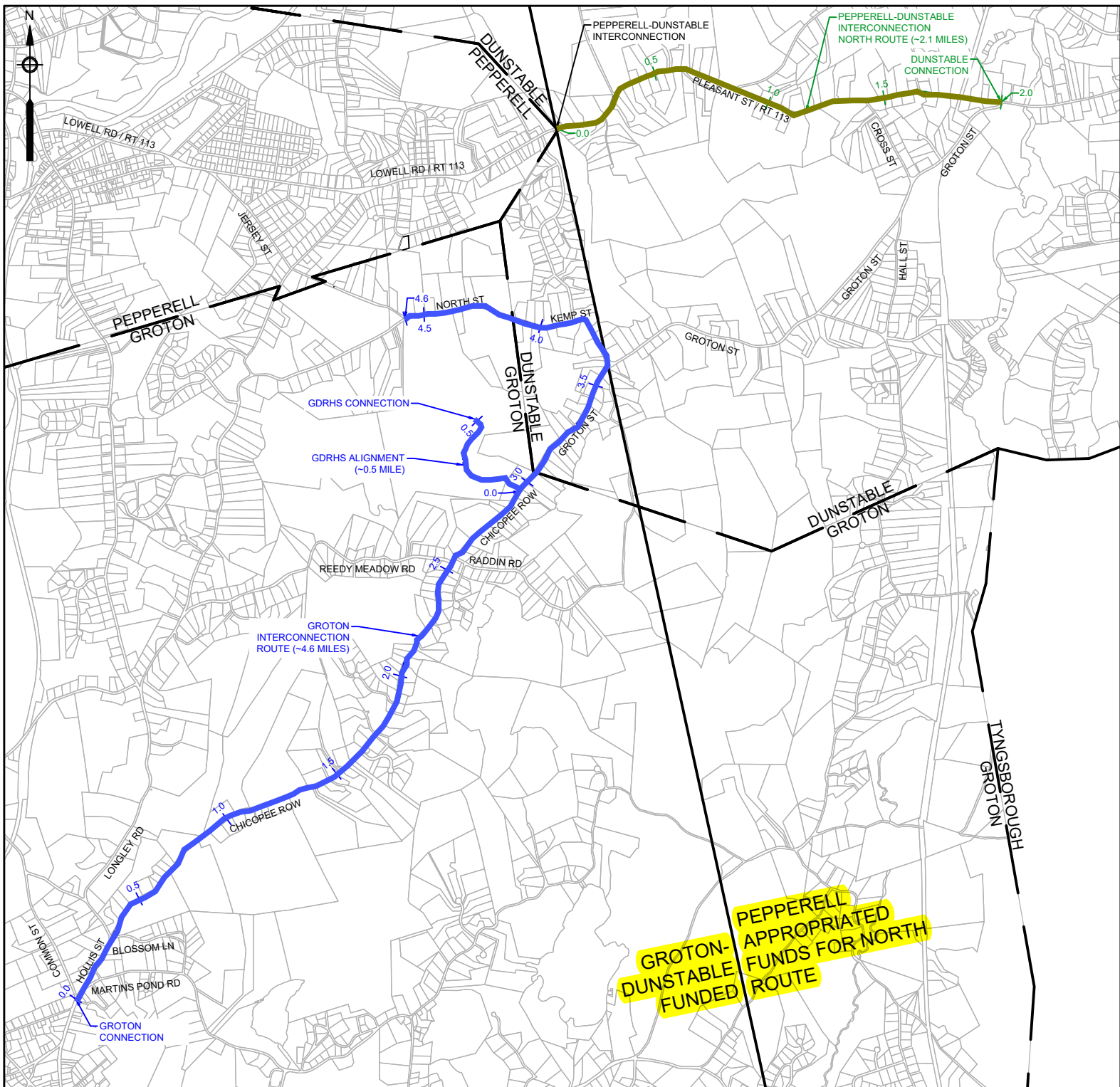
- Provides the shortest timeframe for water with PFAS < 4 ppt to GDRHS and residential properties in Dunstable.
- Provides a water main in Groton to serve properties that may be in the path of the PFAS plume.
- Provides interconnections for a potential water main extension on Wyman Road in Groton in case of PFAS issues.
- Dunstable cost-share matches Pepperell solution with Groton Water Department contribution.
- Provides domestic water and irrigation demands with PFAS levels below proposed EPA rules.
- Fire flow is sufficient for the GDRHS sprinkler system and residential properties, which avoids future expense to rehabilitation three cisterns.

### Challenges

- Needs a determination of insignificance through the Inter-basin Transfer Act process to provide domestic water to the GDRHS and surrounding Dunstable properties. This requires a two-step process with the Water Resources Commission.
- Does not enable a connection to the future Pepperell-Dunstable interconnection.

### Summary of Comparable Benefits and Challenges

Solution Effectiveness	Implementation Timeline	Design, Permitting, and Constructability Challenges	Capital Cost
Domestic water, irrigation and fire flow demands met Does not enable a connection to the future Pepperell-Dunstable interconnection.	Solution for PFAS contaminated properties could be implemented by September 2025	Only water main and chlorine booster construction  Determination of Insignificance for Groton connection	\$12.8M



## GROTON WATER MAIN TO GDRHS & DUNSTABLE/GROTON PROPERTIES

SCALE: 1"=3000'

Description beginning in Groton:

- A new 12-Inch water main in Chicopee Row 2.6 miles from Hollis Street to Reedy Meadow Road,
- Followed by an 8-inch water main to the GDRHS and in Dunstable via Groton Street and Kemp Street to the Dunstable-Groton town line,
- Then in Groton via North Street to Wyman Road.

## Opinion of Probable Project Cost for Comparison of Alternatives

Item No.	Description	Units	Quantity	Unit Price	Extended Amount
<b>1</b>	<b>MOBILIZATION AND DEMOBILIZATION</b>				
1a	Mobilization and Demobilization	ALLOW	1	\$490,000	\$490,000
<b>2</b>	<b>DUCTILE-IRON WATER MAINS</b>				
2a	6-inch Ductile-Iron Water Main, Class 52 Pipe	LF	1,250	\$150	\$187,500
2b	8-inch Ductile-Iron Water Main, Class 52 Pipe	LF	12,935	\$185	\$2,392,975
2c	12-inch Ductile-Iron Water Main, Class 52 Pipe	LF	13,500	\$200	\$2,700,000
<b>3</b>	<b>FIRE HYDRANTS</b>				
3a	Fire Hydrants	EA.	50	\$6,500	\$325,000
<b>4</b>	<b>DUCTILE-IRON FITTINGS</b>				
4a	Ductile-Iron Fittings	LB.	5,537	\$2.00	\$11,074
<b>5</b>	<b>GATE VALVES AND BOXES</b>				
5a	6-inch Gate Valves and Boxes	EA.	50	\$1,750	\$87,500
5b	8-inch Gate Valves and Boxes	EA.	29	\$2,500	\$72,500
5c	12-inch Gate Valves and Boxes	EA.	30	\$3,500	\$105,000
<b>6</b>	<b>Service Connections</b>				
6a	Service Connections (Corp/Curb/1" PE Tubing)	EA.	92	\$3,500	\$322,000
<b>7</b>	<b>EARTHWORK</b>				
7a	Earthwork (Test Pit/Rock/Unsuitable/Select Full)	CY	7,690	\$40	\$307,600
<b>8</b>	<b>TEMPORARY PAVEMENT</b>				
8a	Temporary Trench Pavement (3.5" Depth)	SY	18,569	\$60	\$1,114,158
<b>9</b>	<b>PERMANENT PAVEMENT</b>				
9a	Trench Width Mill w/12-inch cutbacks (2" Depth)	SY	26,232	\$35	\$918,125
<b>10</b>	<b>ENVIRONMENTAL PROTECTION</b>				
10a	Environmental Protection (Silt Sack/Filter Sock) 1% of items 2 through 9	LS	1	\$85,000	\$85,000
<b>11</b>	<b>TRAFFIC CONTROL</b>				
11a	Uniformed Police Officer Allowance (10 hr. days x \$65 per hr. x 2 officers)	ALLOW	1	\$435,500	\$435,500
11b	Traffic Management	DAYS	335	\$250	\$83,750
<b>12</b>	<b>MISCELLANEOUS ITEMS</b>				
12a	Chlorine Booster Station	LS	1	\$600,000	\$600,000
				Subtotal	\$10,238,000
				Engineering (10%)	\$1,023,800
				Contingency (15%)	\$1,535,700
				<b>Total</b>	<b>\$12,800,000</b>