

# ALTERNATIVES SUMMARY

## Groton-Pepperell-Dunstable Regional Water System Plan

### Benefits

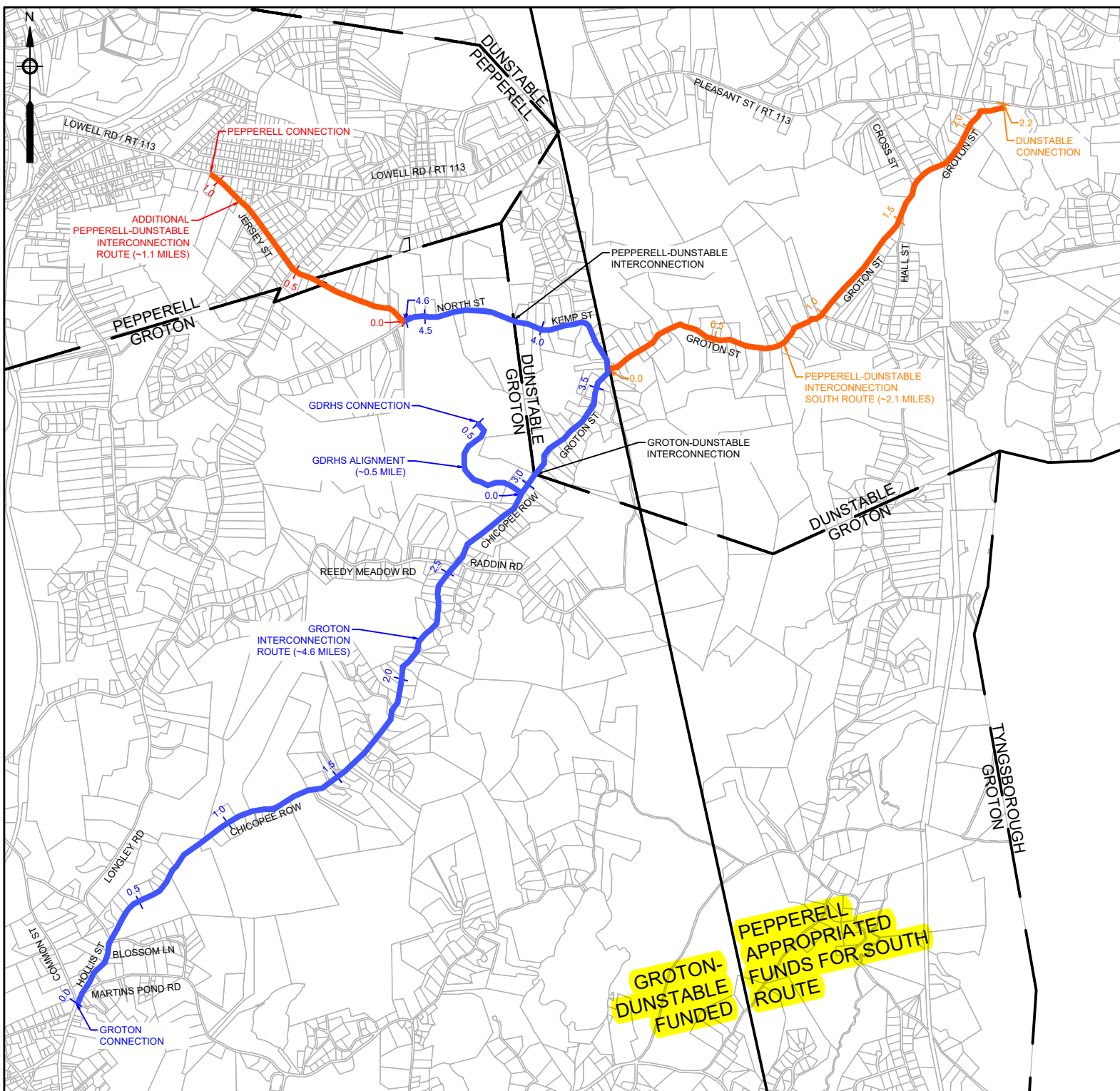
- Provides the benefits of both the Groton extension and the Pepperell extension.
  - Provides a water main in Groton Street for properties that may be in the path of the PFAS plume.
  - Provides a water main in Chicopee Row for properties that may be in the path of the PFAS plume.
  - The Groton water main delivers clean water to GDRHS and contaminated properties most quickly.
  - Provides fire flow to the GDRHS and surrounding properties.
- Will enable the connection of the Pepperell system to the contaminated properties once the Jersey Street water treatment plant (WTP) and booster station are completed.
- Provides interconnections between the three water systems once the Pepperell-Dunstable interconnection is completed.
- The water main in Dunstable can be turned over to Dunstable water system when the Pepperell-Dunstable interconnection is complete.
- Provides additional flexibility for additional water main extensions in case of PFAS contamination (e.g. Wyman Road in Groton could be served by Pepperell/Dunstable or Groton).

### Challenges

- Most expensive alternative.
- Needs a determination of insignificance through the Inter-basin Transfer Act process to provide domestic water to the GDRHS and surrounding Dunstable properties from Groton.

### 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. Enables a connection to the future Pepperell-Dunstable interconnection.	Solution for PFAS contaminated properties could be implemented by September 2025.	WTP construction and permitting.  Determination of Insignificance for the Groton connection. A full Inter-basin transfer permit for tri-community connections.	\$15.9M



**GROTON-PEPPERELL-DUNSTABLE REGIONAL PLAN**  
 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 a new 8-inch water main to the GDRHS and via Groton Street to Kemp Street in Dunstable,
- Continuing in Kemp Street as a 12-inch water main to the Dunstable-Groton town line, and in Groton via North Street to East Street in Pepperell, and
- Then a new 12-inch water main to replace the 8-inch water main in Jersey Street in Pepperell from East Street near the Pepperell-Groton town line to Route 113.

## 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>				
1	Mobilization and Demobilization	ALLOW	1	\$600,000	\$600,000
<b>2</b>	<b>DUCTILE-IRON WATER MAINS</b>				
2a	6-inch Ductile-Iron Water Main, Class 52 Pipe	LF	1,650	\$150	\$247,500
2b	8-inch Ductile-Iron Water Main, Class 52 Pipe	LF	7,920	\$185	\$1,465,200
2c	12-inch Ductile-Iron Water Main, Class 52 Pipe	LF	24,165	\$200	\$4,833,000
<b>3</b>	<b>FIRE HYDRANTS</b>				
3a	Fire Hydrants	EA.	66	\$6,500	\$429,000
<b>4</b>	<b>DUCTILE-IRON FITTINGS</b>				
4a	Ductile-Iron Fittings	LB.	6,747	\$2.00	\$13,494
<b>5</b>	<b>GATE VALVES AND BOXES</b>				
5a	6-inch Gate Valves and Boxes	EA.	66	\$1,750	\$115,500
5b	8-inch Gate Valves and Boxes	EA.	18	\$2,500	\$45,000
5c	12-inch Gate Valves and Boxes	EA.	54	\$3,500	\$189,000
<b>6</b>	<b>Service Connections</b>				
6a	Service Connections (Corp/Curb/1" PE Tubing)	EA.	151	\$3,500	\$528,500
<b>7</b>	<b>EARTHWORK</b>				
7a	Earthwork (Test Pit/Rock/Unsuitable/Select Full)	CY	9,370	\$40	\$374,800
<b>8</b>	<b>TEMPORARY PAVEMENT</b>				
8a	Temporary Trench Pavement (3.5" Depth)	SY	23,000	\$60	\$1,380,000
<b>9</b>	<b>PERMANENT PAVEMENT</b>				
9a	Trench Width Mill w/12-inch cutbacks (2" Depth)	SY	32,586	\$35	\$1,140,506
<b>10</b>	<b>ENVIRONMENTAL PROTECTION</b>				
10a	Environmental Protection (Silt Sack/Filter Sock) 1% of items 2 through 9	LS	1	\$108,000	\$108,000
<b>11</b>	<b>TRAFFIC CONTROL</b>				
11a	Uniformed Police Officer Allowance (10 hr. days x \$65 per hr. x 2 officers)	ALLOW	1	\$520,000	\$520,000
11b	Traffic Management	DAYS	400	\$250	\$100,000
<b>12</b>	<b>MISCELLANEOUS ITEMS</b>				
12a	Chlorine Booster Station	LS	1	\$600,000	\$600,000
				Subtotal	\$12,689,500
				Engineering (10%)	\$1,268,950
				Contingency (15%)	\$1,903,425
				<b>Total</b>	<b>\$15,900,000</b>