



Pleasant Street and Gilman Avenue Area Improvement Project

Town of St. Johnsbury, Vermont

Bond Hearing

February 25, 2019

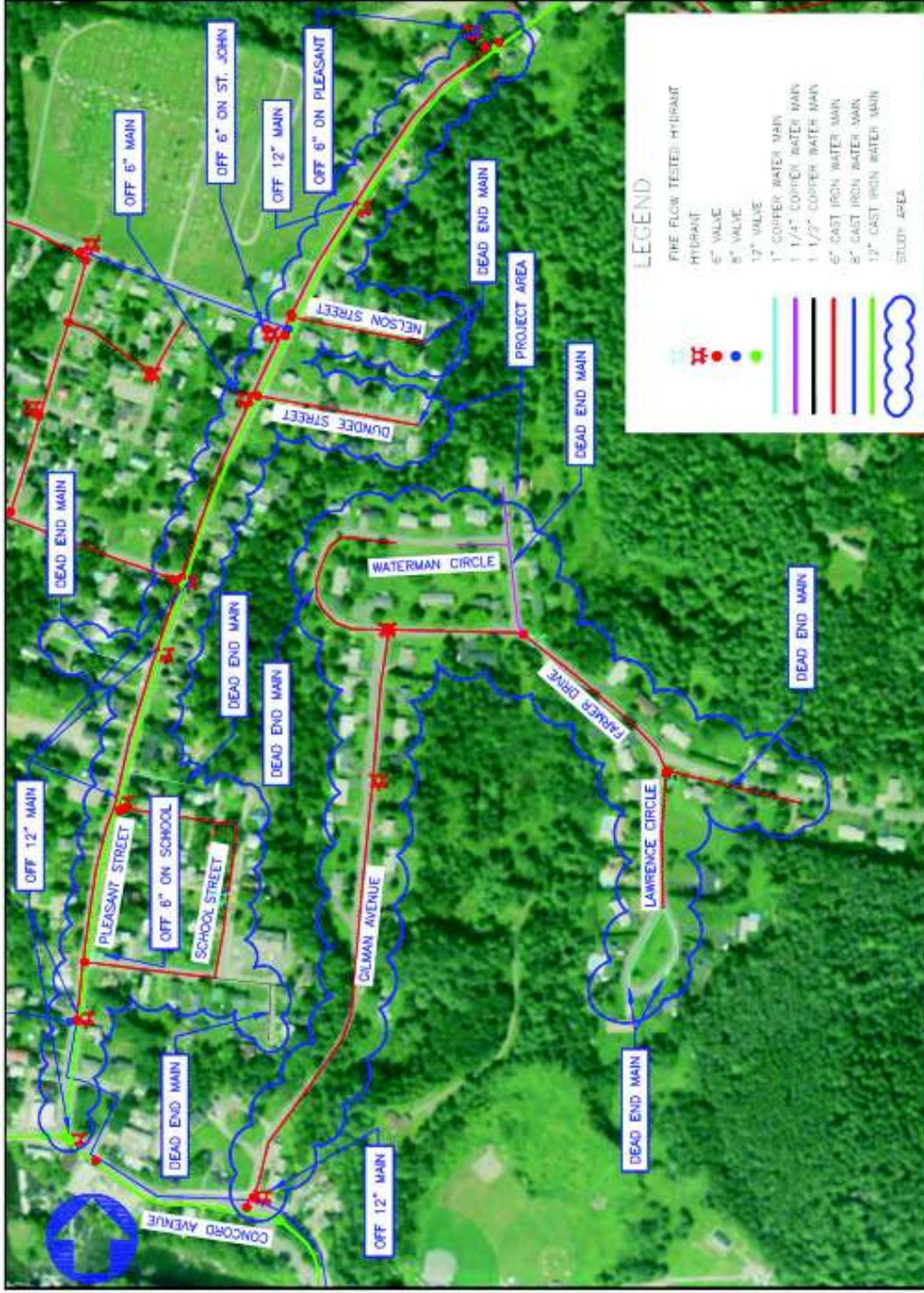
Pleasant Street and Gilman Avenue Area Improvement Project

- **What?** Preliminary Engineering Report (PER) Recommendations
- **Where?** Location
- **Why?** Project Need/Combined Sewer Overflow Elimination
- **How?** Method/Funding
- **When?** Schedule

What?

- Preliminary Engineering Recommendations
 - Replace Water Mains
 - New Sanitary Sewer Collection Mains
 - New Stormwater Management System
 - Road Improvements
- Other Items
 - Combined Sewer Overflow Compliance (1272 Order)
 - Pleasant Street Sidewalks
 - Establish Rights-of-Way
 - Concord Avenue, Gilman Avenue, Dundee Street, Nelson Street, and School Street

Where?

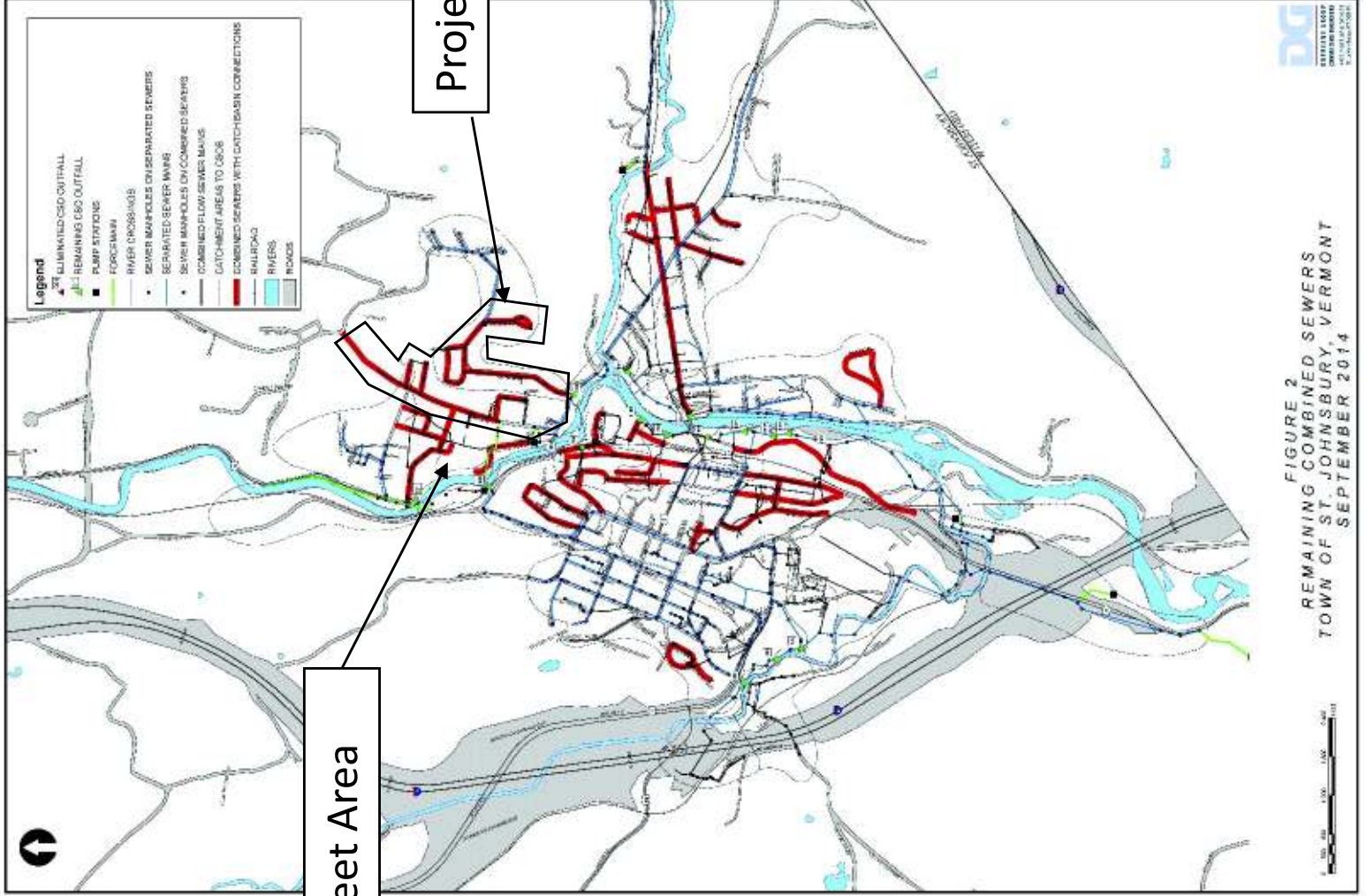


Why? Sewer

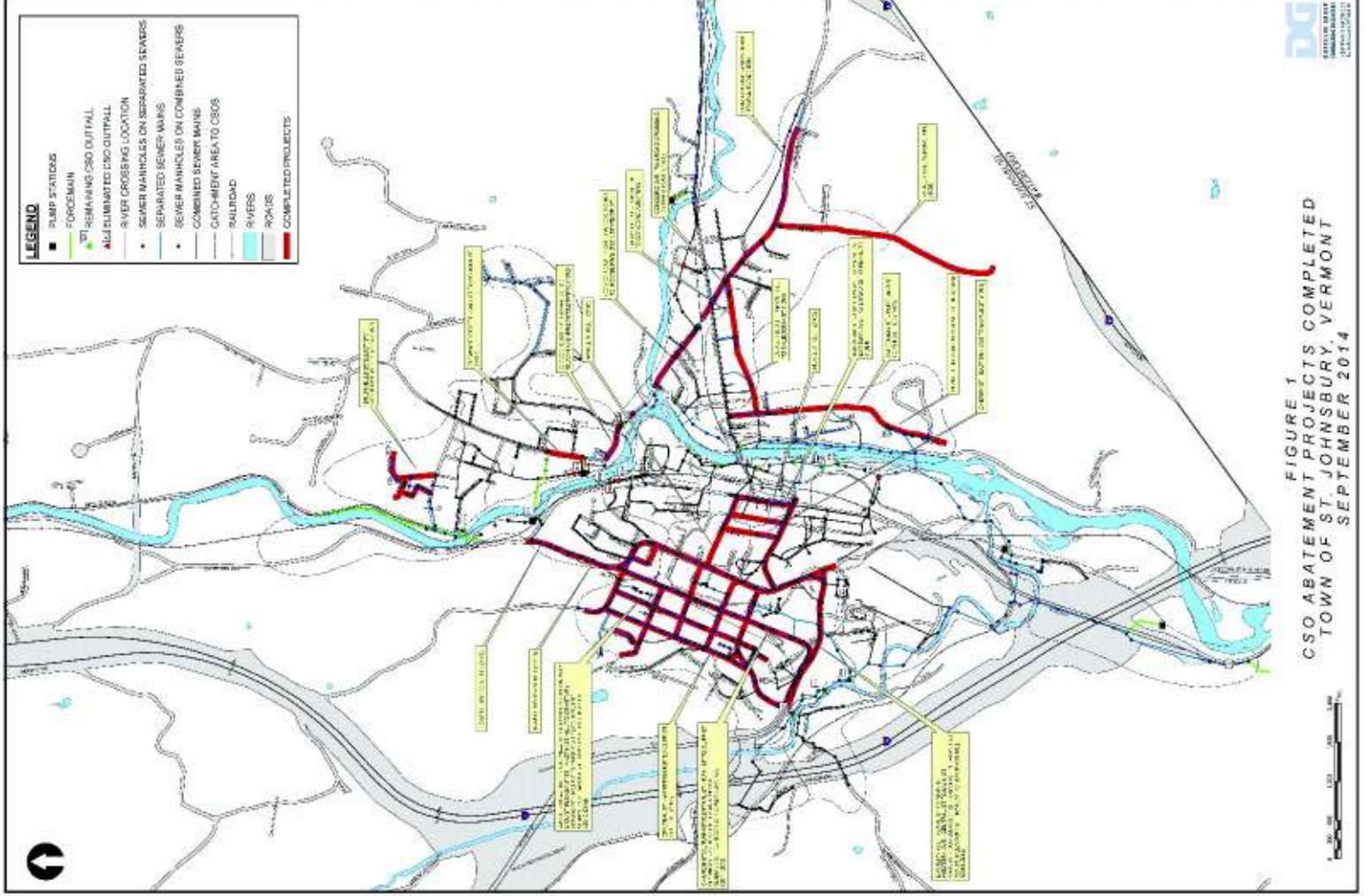


- **Combined Sewer Overflow Elimination**
 - Part of 1272 compliance order, project will eliminate one of the more active outfalls
 - During rain events, the stormwater enters the sewer system and can exceed the capacity of the sewer system causing overflows
- **Sewer in Poor Condition**
 - Increases maintenance frequency and reduces flow capacity
- **Undersized Inverted Siphon**
 - Depressed sewer under Moose River backs up sewer on Concord Ave and causes surcharges.

Why? CSO



Why? CSO



Why? Stormwater Management

- Currently stormwater is treated at the WWTF
- Separate from sanitary sewer to eliminate overflows
- 2017 Stormwater Management Rule
 - General Discharge Permit 3-9015 required
 - Reduce impervious – Gilman and Concord
 - Treat water quality events (1-inch storm) with infiltration devices – Pleasant, Nelson, Dundee
 - Inspect and certify every 3 years

Why?

Water Main

- Compliance Issue
 - Insufficient fire flows
- 100 year old pipe
 - 6" cast iron water main on Pleasant Street from 1918 needs services transferred to newer 12" lined cast iron
 - 6" cast iron has experienced frequent breaks in recent years
- Tuberculation
 - Reduces hydraulic capacity



Why?

Road Improvements

- Pleasant Street
 - Sidewalks
 - Not included in recommended project as they are not eligible for RD funding
 - Estimated cost for both sides \$250,000, one side approximately \$100,000
- Gilman Avenue
 - Reduction of impervious surface from 39-feet to 22-feet wide
- Farmer Drive Culvert
 - In failure



How? Open Trench Construction



How? Sewer



► Costs

- Estimated Total Project Cost \$4,709,000
- Financing options:

	Local Borrowing at 3.875% for 30-Years	CWSRF Loan at 0% for 30-Years W/ 2% Admin	CWSRF Loan at 0% for 30-Years W/ 2% Admin	CWSRF Loan at 0% for 30 Years W/ 2% Admin	USDA-RD Loan 2.375% for 30-Years	USDA-RD 45% Grant, 55% Loan at 2.375% for 30-Years
Estimated Total Project Cost	\$4,709,000	\$4,709,000	\$4,709,000	\$4,709,000	\$4,709,000	\$4,709,000
Less Anticipated Grants in Aid	\$0	\$252,000	\$0	\$0	\$0	\$2,119,050
Remaining Local Share	\$4,709,000	\$4,457,000	\$4,709,000	\$4,709,000	\$4,709,000	\$2,589,950
Annual Payment to Capitalize Project (including principal and interest)	\$268,204	\$199,004	\$210,256	\$221,252	\$121,688	
Budgeted Sewer System Revenue	\$1,499,350	\$1,499,350	\$1,499,350	\$1,499,350	\$1,499,350	\$1,499,350
Estimated % Increase in budget to fund project	17.9%	13.3%	14.0%	14.8%	8.11%	

How? Stormwater



► Costs

- Estimated Total Project Cost \$1,457,000
- Financing options:

	Local Borrowing at 3.875% for 30-Years	CWSRF Loan at 0% for 30-Years W/ 2% Admin	CWSRF Loan at 0% for 30-Years W/ 2% Admin	CWSRF Loan at 0% for 30 Years W/ 2% Admin	USDA-RD Loan 2.375% for 30-Years	USDA-RD 45% Grant, 55% Loan at 2.375% for 30-Years
Estimated Total Project Cost	\$1,457,000	\$1,457,000	\$1,457,000	\$1,457,000	\$1,457,000	\$1,457,000
Less Anticipated Grants in Aid	\$0	TBD	TBD	\$0	\$0	\$655,650
Remaining Local Share	\$1,457,000	-	-	\$1,457,000	\$1,457,000	\$801,350
Annual Payment to Capitalize Project (including principal and interest)	\$82,984	-	-	\$65,055	\$68,457	\$37,651
Highway Budget	\$2,924,380	\$2,924,380	\$2,924,380	\$2,924,380	\$2,924,380	\$2,924,380
Estimated % Increase in budget to fund project	2.84%	-	-	2.22%	2.34%	1.29%

How? Water



- Costs
 - Estimated Total Project Cost \$2,510,000
 - Financing options:

	Local Borrowing at 3.5% for 30-Years	DWSRF Loan at 1.43% for 30-Years	USDA-RD Loan 2.375% for 40-Years	USDA-RD 45% Grant, 55% Loan at 2.375% for 40-Years
Estimated Total Project Cost	\$2,510,000	\$2,510,000	\$2,510,000	\$2,510,000
Less Anticipated Grants in Aid	\$0	\$0	\$0	\$1,129,500
Remaining Local Share	\$2,510,000	\$2,510,000	\$2,510,000	\$1,380,500
Annual Payment to Capitalize Project (including principal and interest)	\$136,472	\$103,480	\$97,896	\$53,843
Estimated Water System Revenue	\$1,304,000	\$1,304,000	\$1,304,000	\$1,304,000
Estimated % Increase in budget to fund project	10.5%	7.9%	7.5%	4.1%

When?

- Now
 - Final Design
- March 2019 – Bond Vote
- Winter 2019/2020 – Bidding
- Summer 2020 - Construction

Contact Information

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Questions/Comments?



**Combined Sewer Overflow Frequently
Discharging into the Passumpsic River**