



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

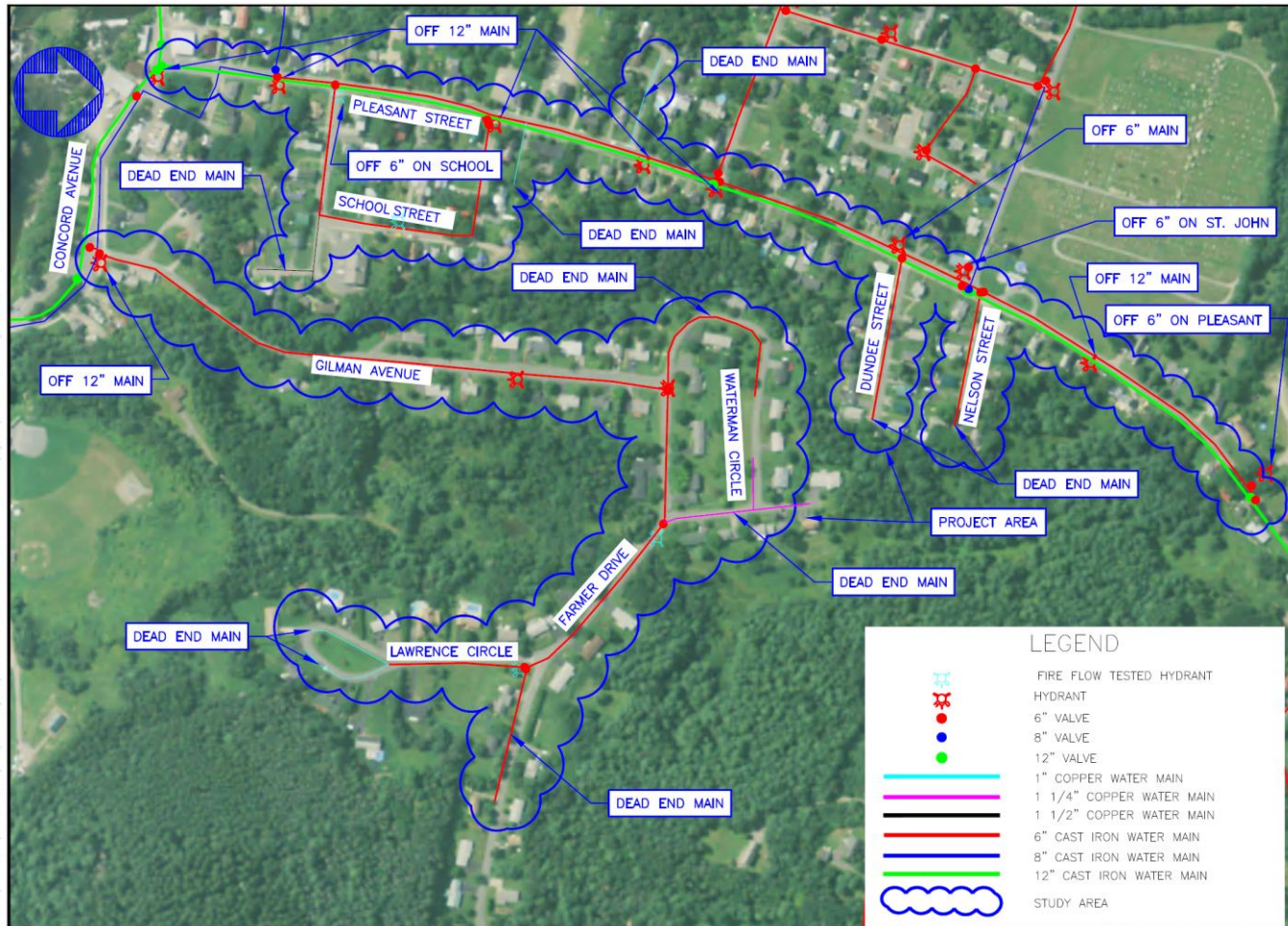
- **What?** Preliminary Engineering Report (PER) Recommendations
- **Where?** Location
- **Why?** Project Need/Combined Sewer Overflow Elimination
- **How?** Method/Funding
- **When?** Schedule

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?

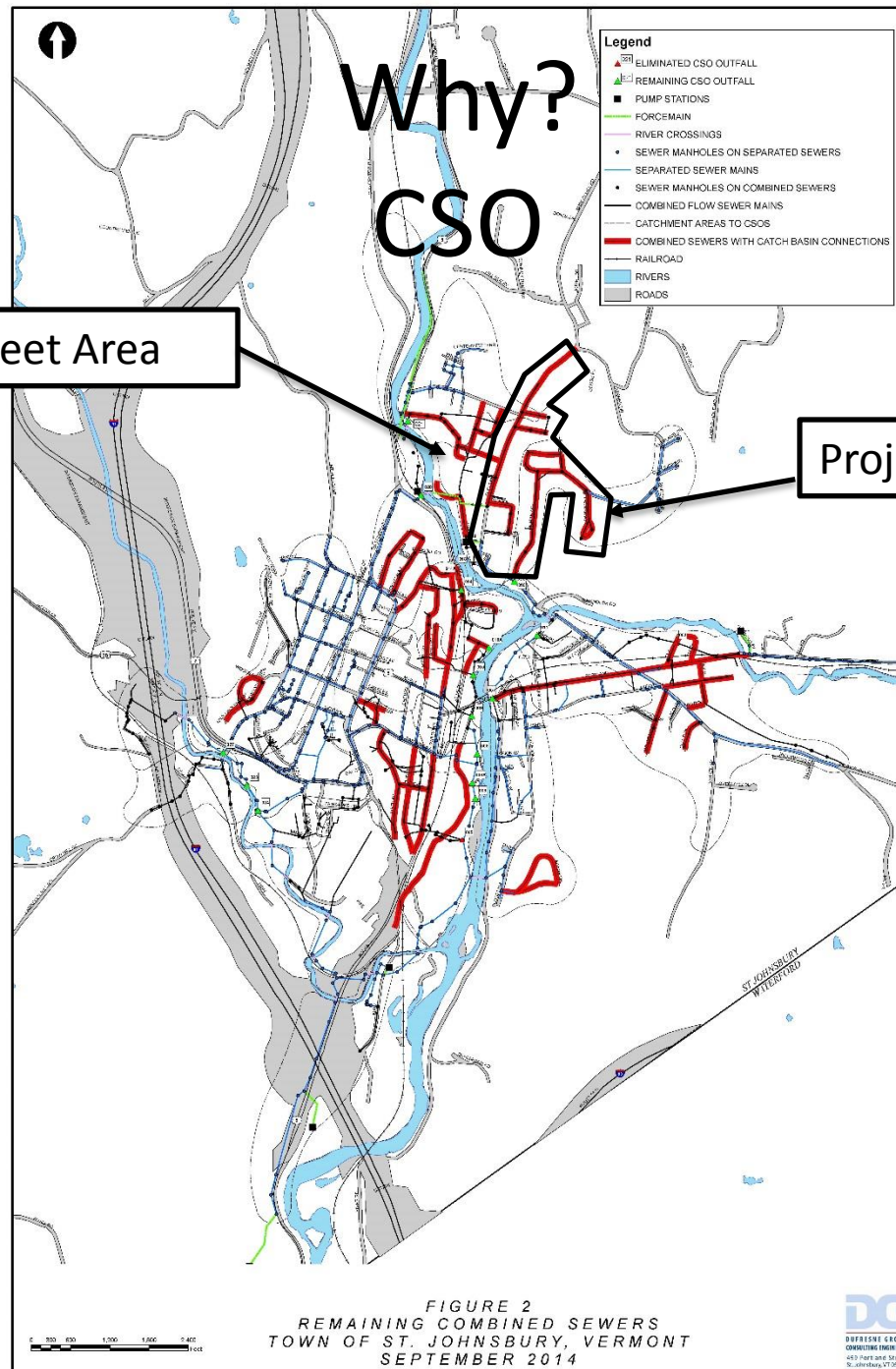
Sewer

- 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

Oak Street Area

Project Area



Why?

CSO

LEGEND

- PUMP STATIONS
- FORCE MAIN
- ▲ REMAINING CSO OUTFALL
- △ ELIMINATED CSO OUTFALL
- RIVER CROSSING LOCATION
- SEWER MANHOLES ON SEPARATE SEWERS
- SEPARATED SEWER MAINS
- SEWER MANHOLES ON COMBINED SEWERS
- COMBINED SEWER MAINS
- - - CATCHMENT AREA TO CSOS
- RAILROAD
- RIVERS
- ROADS
- COMPLETED PROJECTS

**FIGURE 1
CSO ABATEMENT PROJECTS COMPLETED
TOWN OF ST. JOHNSBURY, VERMONT
SEPTEMBER 2014**

Scale: 0 500 1000 1500 2000 Feet

ST. JOHN'S RIVER
WATERFORD



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

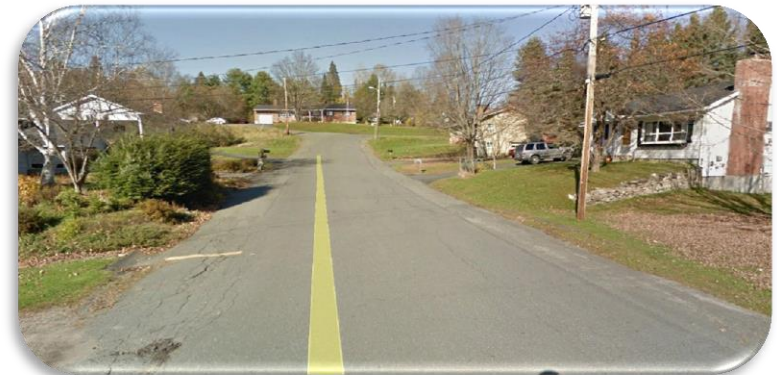
- Compliance Issue
 - Insufficient fire flows
- 100 year old pipe
 - 6" cast iron water main on Pleasant Street from 1918 needs services transferred to newer 12" lined cast iron
 - 6" cast iron has experienced frequent breaks in recent years
- Tuberculation
 - Reduces hydraulic capacity



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



When?

- Now
 - Potential project phasing
- March 2019 – Bond Vote
- Winter 2019/2020 – Bidding
- Summer 2020 - Construction

Contact Information

- Town Office
 - Chad Whitehead, Town Manager
 - 748-3926
 - cwhitehead@stjvt.com
- Dufresne Group
 - ▶ 748-8605
 - Willie Nickerson, PE
 - Wnickerson@dufresnegroup.com
 - Andrea Day, PE
 - aday@dufresnegroup.com



Questions/Comments?



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