South End Stormwater Management Projects - 2020

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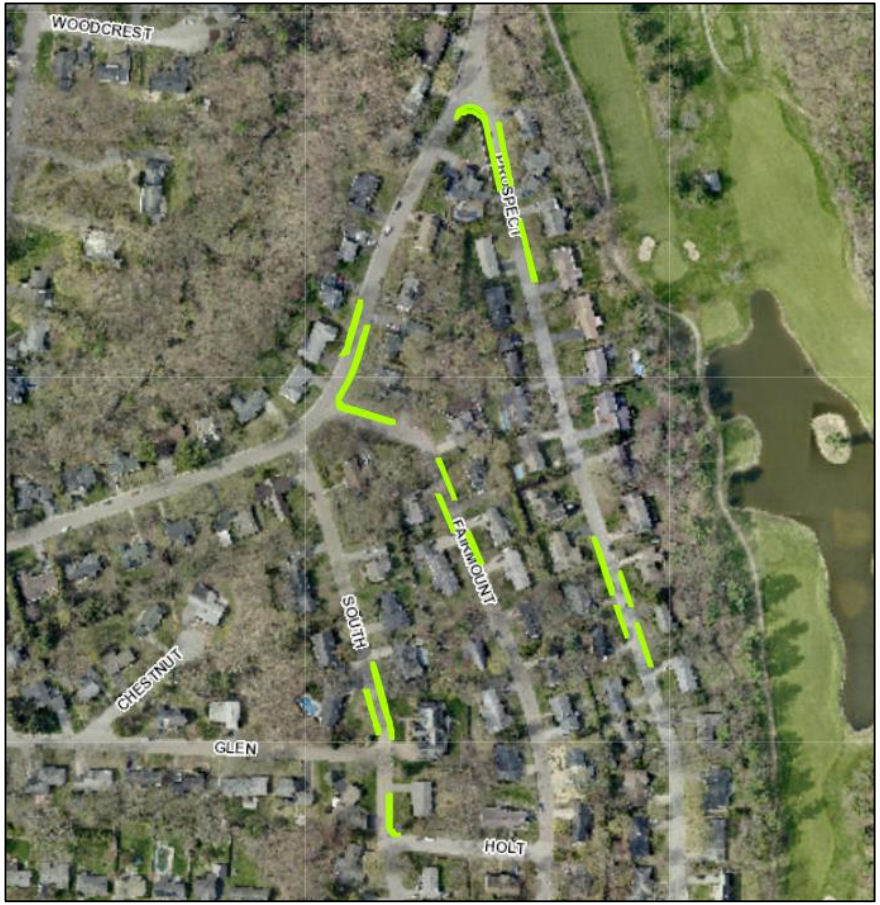
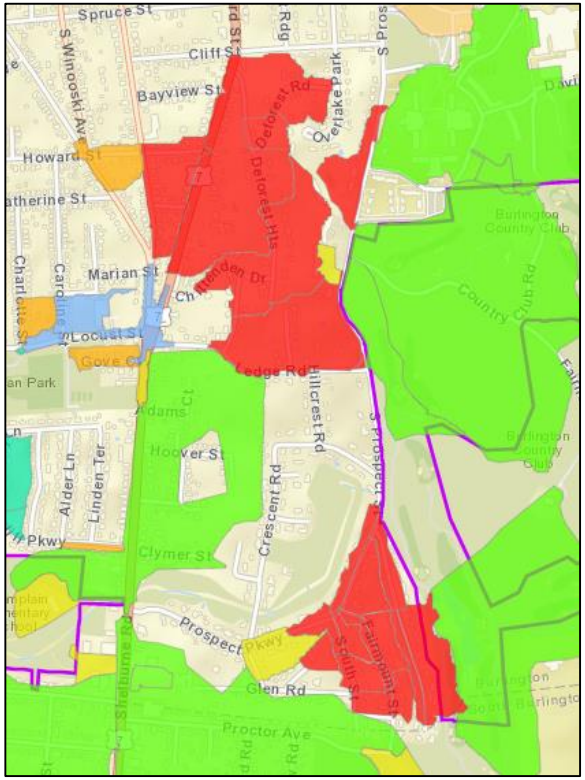
Overview

- Green Stormwater Infrastructure (GSI) Combined Sewer Overflow (CSO) mitigation project
- 6 systems, consisting of 15 distinct features
- Will manage nearly 6 acres of impervious surface – roughly 26% of the Pine Street CSO area



Combined Sewer Overflows

- Roughly 30% of Burlington is still on the combined system
- During particularly intense storms, the system is overloaded and discharges into specific area waters.
- High intensity storms are more frequent
- Burlington is down to 5 CSO points from 12 a generation earlier
- The Pine CSO is most challenging
- A best practice for urban areas is to install “retrofits” which serve to capture, slow and filter stormwater before it overloads our system or enters our Lake
- **Prior GSI work by the City has shown a clear reduction in CSO activity in the Old North End**



Red shows the Pine CSO Area

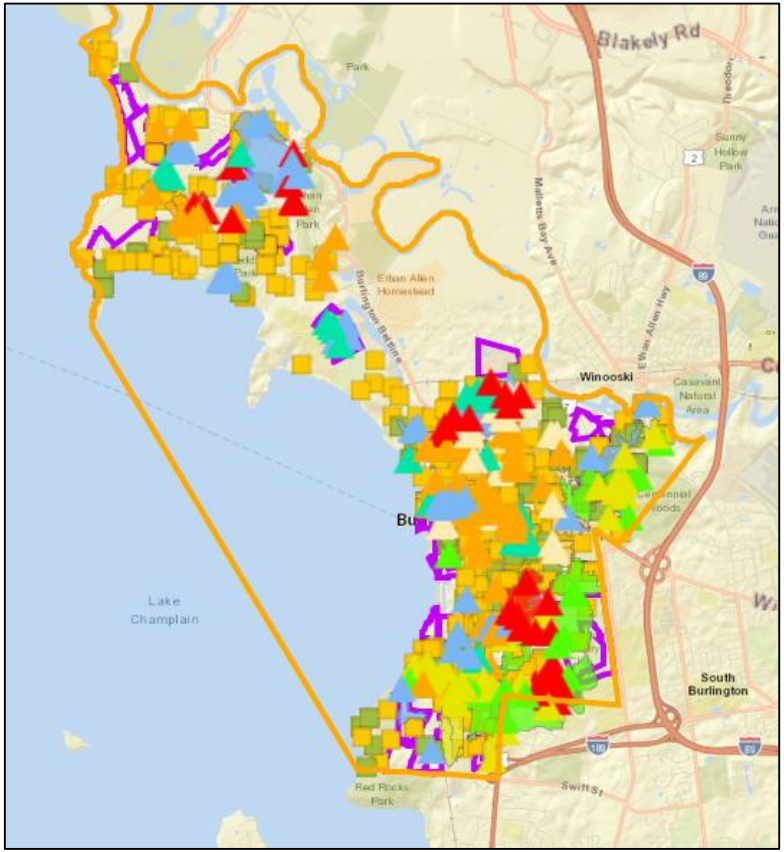
Site Selection

- **Integrated Planning**: First municipality statewide pursuing comprehensive, prioritized plan to meet increasing regulatory obligations and local water quality goals

- **Late 2017**: Stormwater identified locations across entire city suitable for GSI

- **Summer 2018**: Key challenges at wastewater treatment plants and continued CSO frequency at Pine St

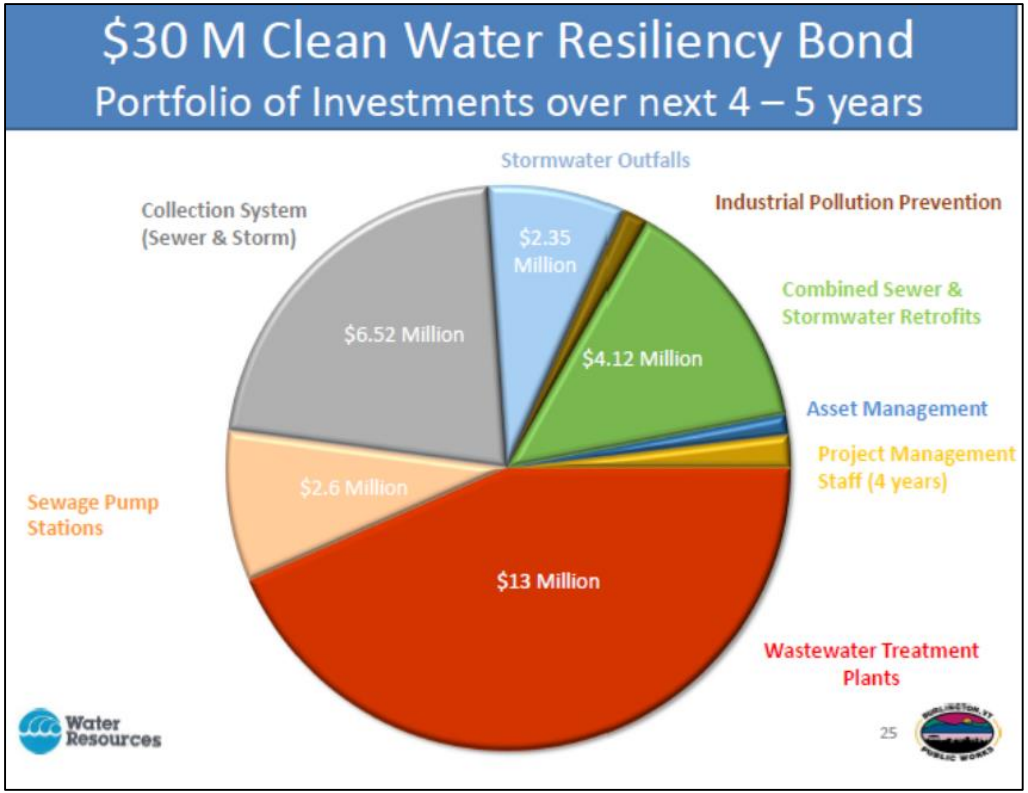
    - Strong community feedback about reducing/eliminating wastewater/stormwater issues



GSI Opportunities Map

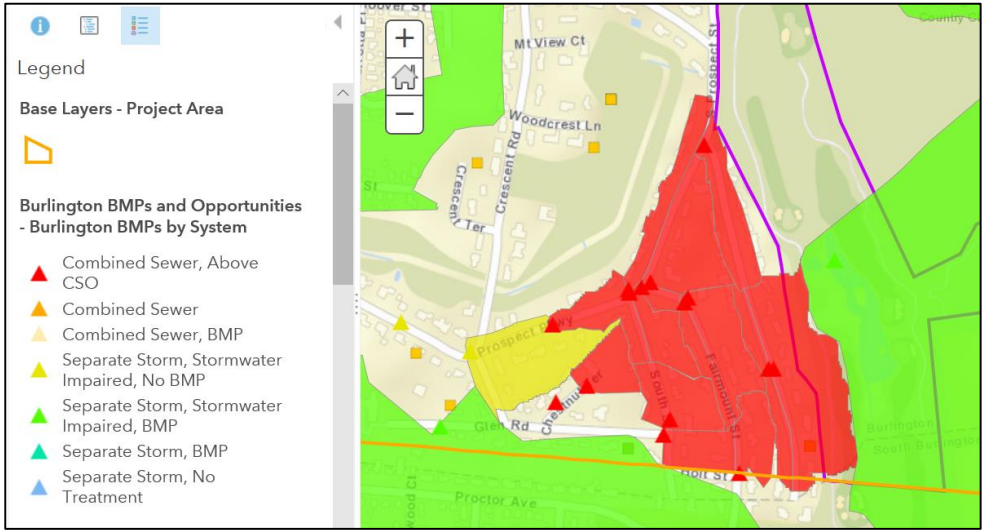
The Plan

- Clean Water Resiliency Plan put forward and passed by voters in 2018.
- Built on years of planning & analysis, but was expedited as a direct response to 2018 challenges
- Key area identified was stormwater retrofits, based on prior success at mitigating CSO activity



Grant Background

- First of its kind to address CSOs in VT
- Statewide RFP released 10/16/2018 for $1.25M, proposals due less than one month later
- **Performance measures**: 12 projects, manage runoff from 15 acres of impervious surface, completed by September 2021
- Staff used Opportunities Map (prior slide) to identify areas of maximum benefit
- Burlington received $1M of the $1.25M, saving considerable ratepayer expense
- BOF/CC approved grant 6/24/2019



Red area represents Pine CSO area. Everything else around this is disconnected and would not bring any benefit to Pine CSO mitigation

ANTICIPATED BENEFITS & IMPACTS

BENEFITS

Citywide water quality benefits

Climate Resiliency

Mitigating most vexing CSO

Neighborhood aesthetics

Habitat & green space reclamation

Increased pollinators

Impervious cover reduction

Inherent traffic calming

IMPACTS

Construction project lasting 6-8 weeks

Permanent parking removal

Narrower ROW

Concentrated in one neighborhood

Next Steps

Letter to Property Owners – Likely next week

Neighborhood Meeting - 3/31

Going out to bid – Likely early April

BOF/CC – Likely mid-late May

DPW Commission – Likely April. Check website for agendas to confirm

Flyers to neighborhood with schedule once received

ROW Inventory – Spring (technically unrelated to this project, but will inform similar future projects)

Summary

- Key implementation step of Clean Water Resiliency Plan
- Location is key – good soil, will mitigate Pine Street CSO
- Integral to BTV's overall climate resiliency efforts
- 100% grant funded – no match requirement
- March 31st Neighborhood Meeting will provide further details.

Example: Booth Street (on a smaller scale)