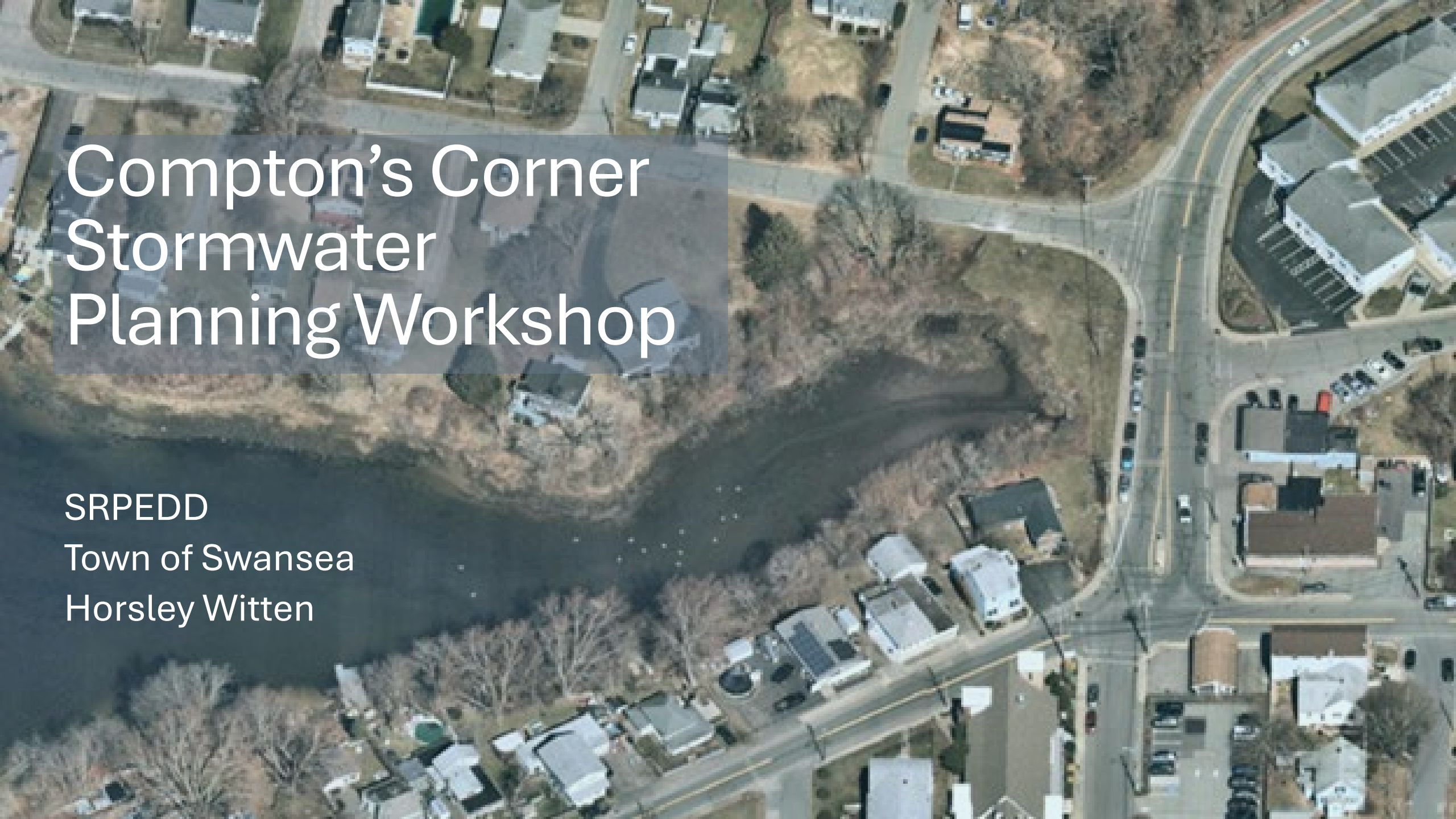


Compton's Corner Stormwater Planning Workshop

SRPEDD
Town of Swansea
Horsley Witten

Acknowledgements and Partners

Workshop Agenda

Video

Project Overview

Project Process

People Involved

Site Considerations

Anthony Ave Design

Project Introduction

Coastal Habitat and Water Quality Grant from MA Office of Coastal Zone Management (2-year project)

- Stormwater quality sampling
- Drainage area delineation
- Site evaluation & stormwater project design

SNEP (Southeast New England Program) Network Stormwater Planning Training

- Stormwater treatment project types
- Site selection & design

Project Overview

1. Why Compton's Corner

- Runs into Mt. Hope Bay, a waterbody of concern for the area
- Estuary habitat for many species
- Large drainage point
- Neighborhood opportunities for improvements
- Partners: Town of Swansea, SRPEDD, CZM, SNEP Network, and Save the Bay

Project Overview

2. Water Quality Assessment

- Worked with SMAST Team, Sara Horvet and associates to train on stormwater testing – helped with actual testing event too
- Partnered with the Public Health Lab of New Bedford to perform the bacterial testing
- Understand what contaminants are coming from which storm drain
- 3 tests; 6 months; very specific rain events at only low tide; Testing for Phosphorus, Salinity, Suspended Solids, Nitrogen, pH, temperature, and Bacteria

Project Overview

3. Site Concept Designs (prepared by Horsley Witten)

- Utilized information for choosing sites best available for Green Infrastructure interventions
- Identified potential sites for the community to prioritize for further design & implementation

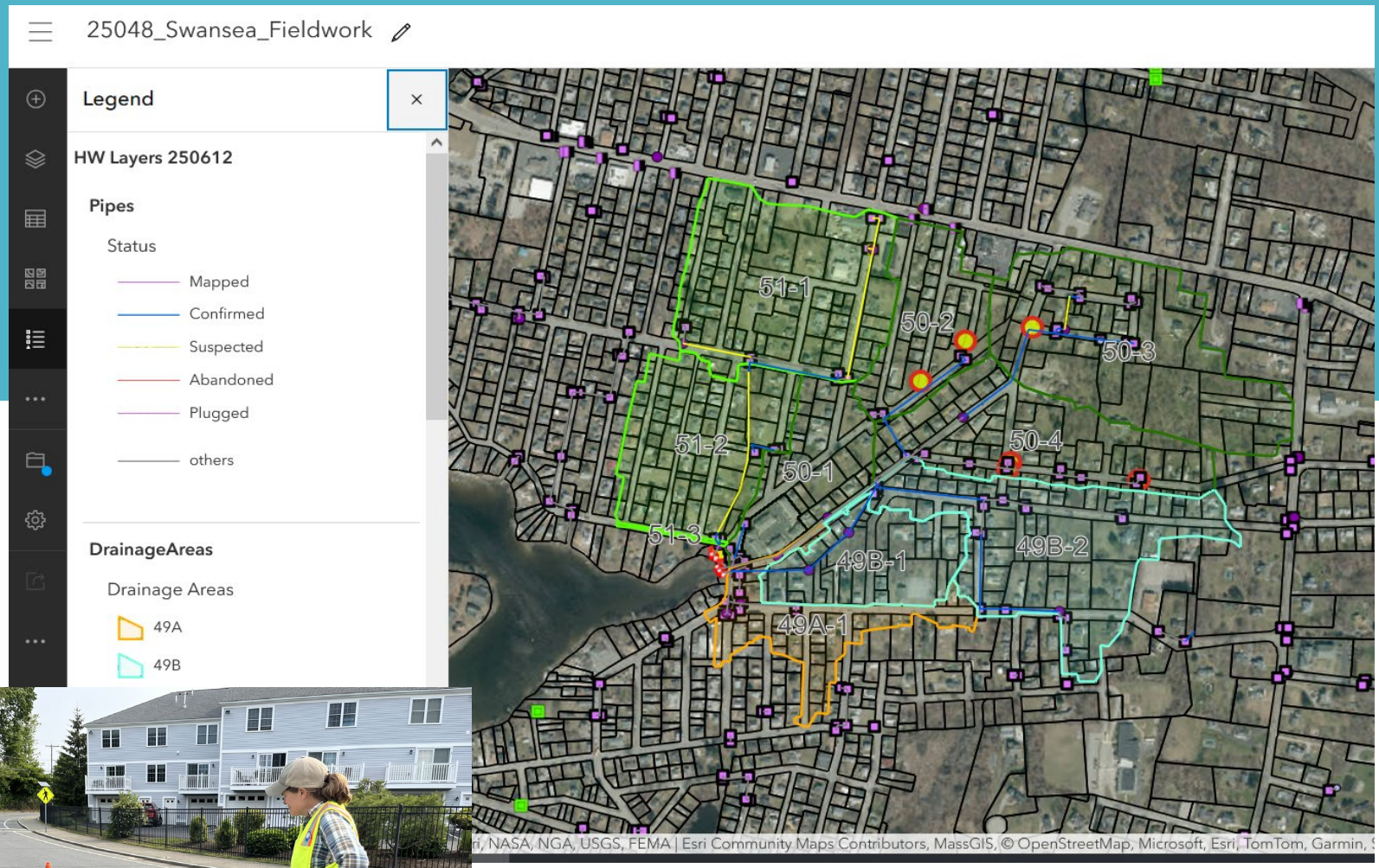
4. Community Input

- Public meetings
- Surveys
- Conversations with neighbors

Site Considerations

- Existing infrastructure
- Reducing contaminants into Mt. Hope Bay
- Ecosystem health
- Feasibility
- Compatibility of green infrastructure intervention at each site
- Community co-benefits

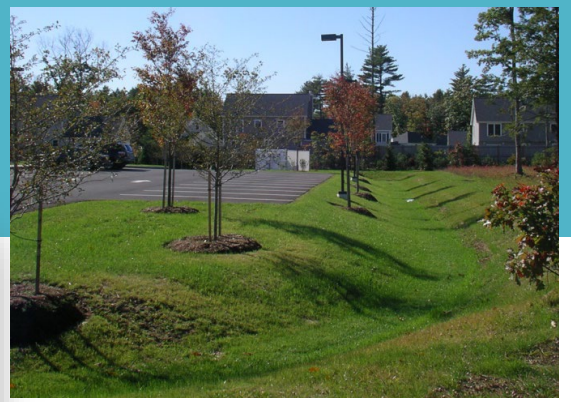
2. Retrofit Inventory



Drainage areas:

- Outfall 51 – 17.3 ac
- **Outfall 50 – 50.2 ac**
- Outfall 49B – 24.4 ac
- Outfall 49A – 6.7 ac

Green Stormwater Infrastructure (GSI) Mimic Nature



Structural Practices

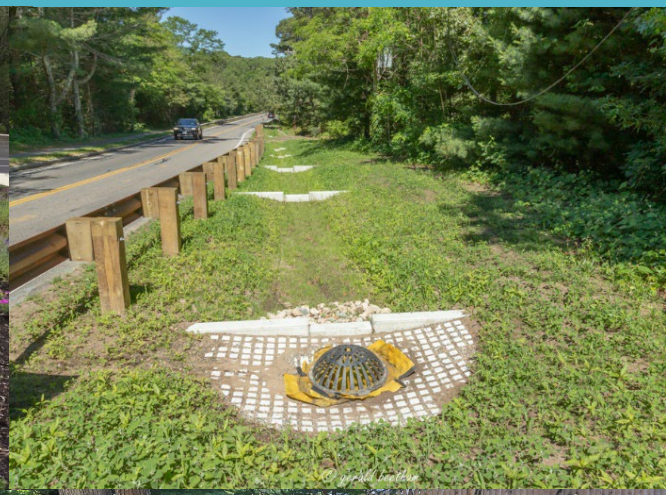
- Infiltration
- Filters
- Wet Practices
- Rainwater Harvesting

Non-structural Practices

- Pavement Removal
- Revegetation
- Source Control
- Public Education

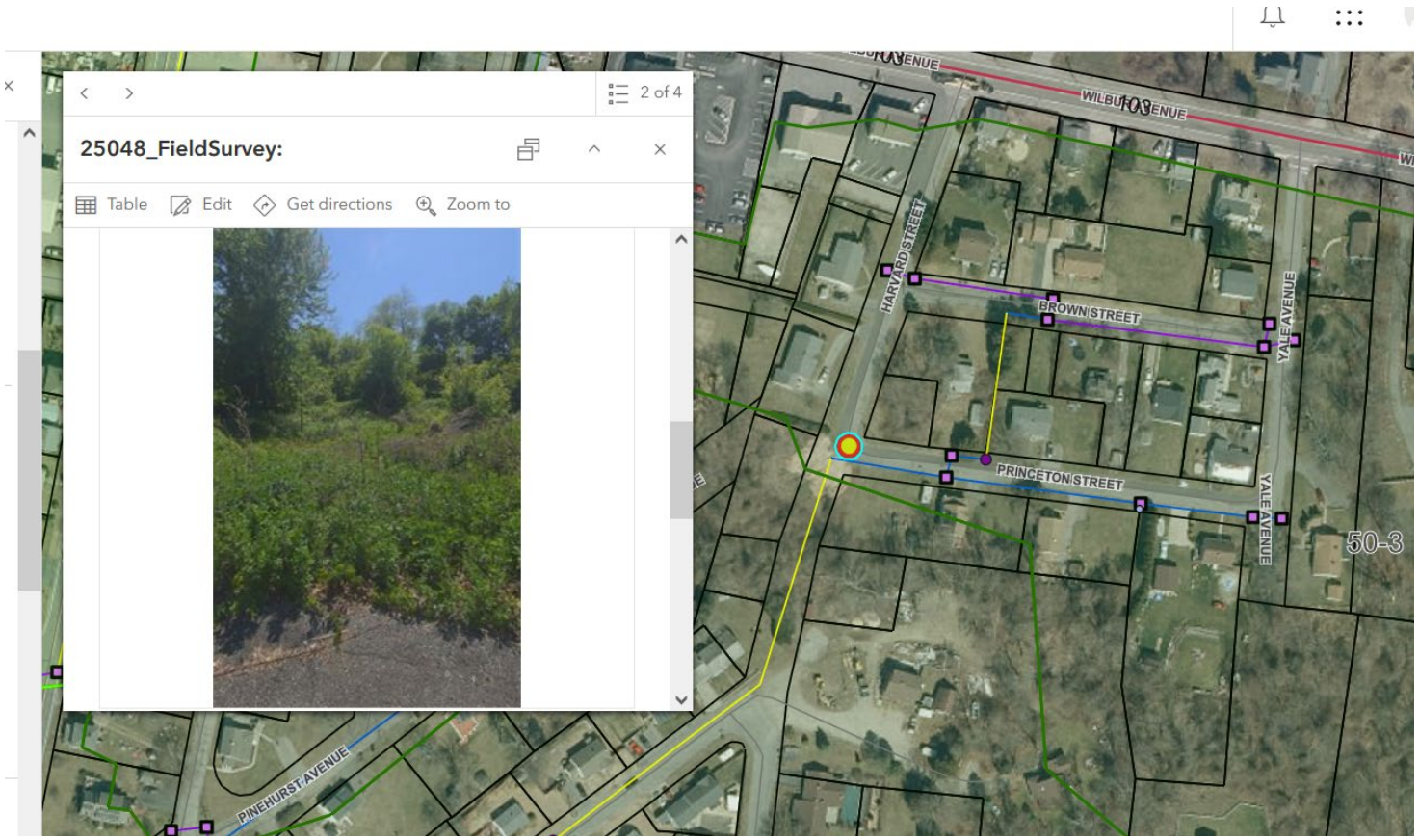
Green Stormwater Infrastructure (GSI) Mimics Nature





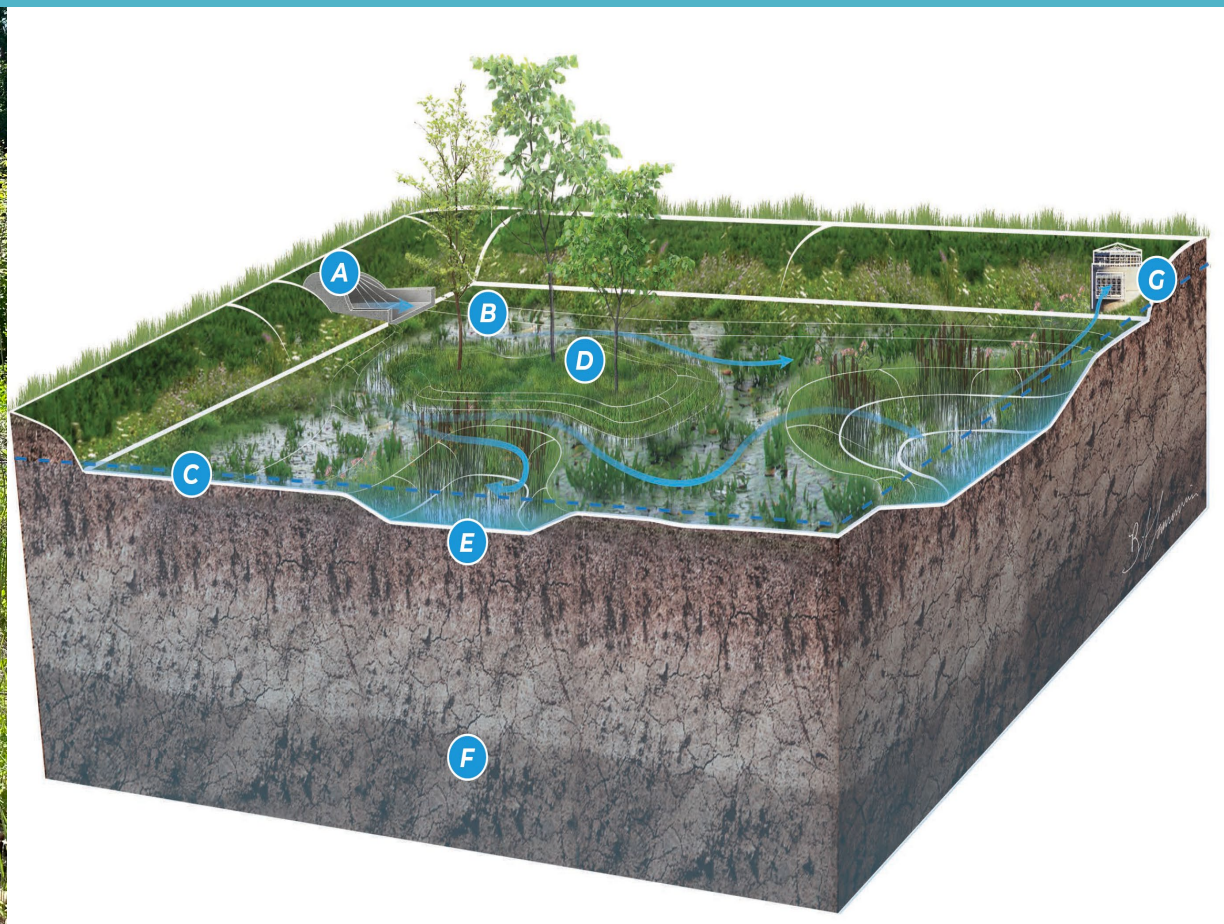
Retrofit Opportunities



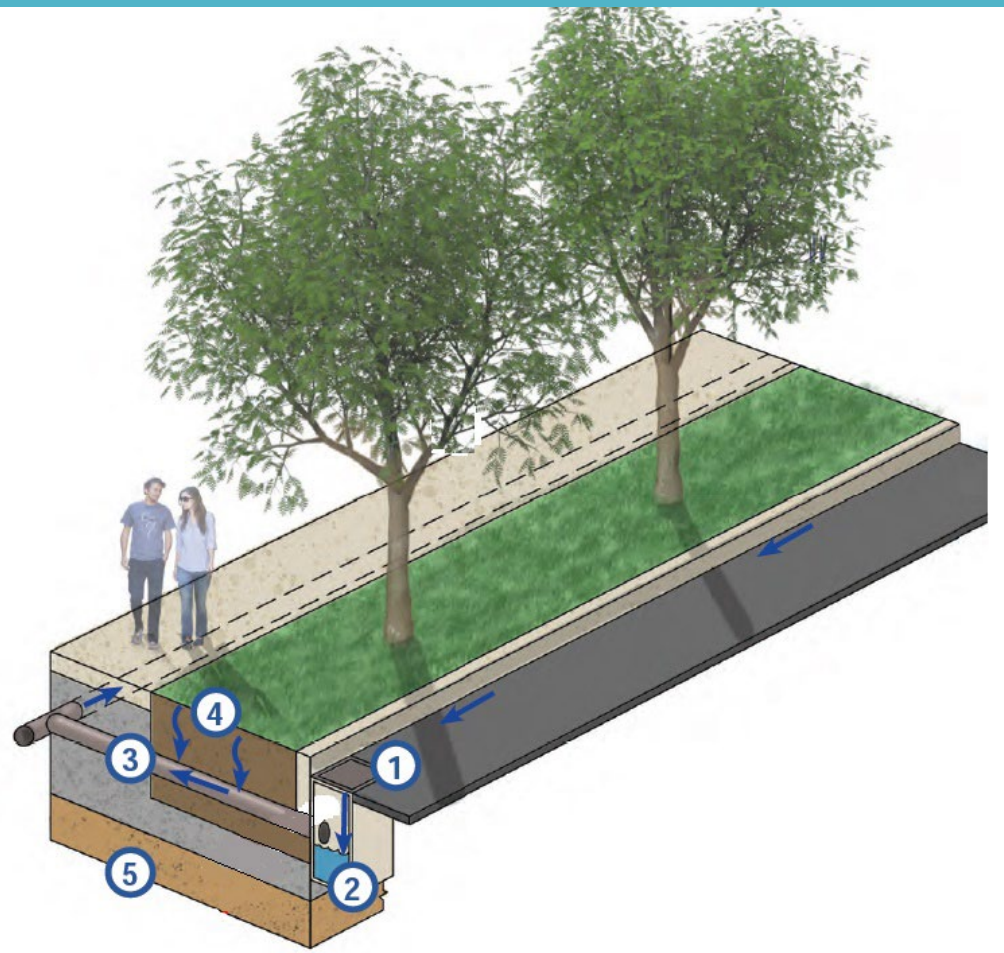
- Identified 10 opportunities
- 10% Concepts for 4
  - R1 – Bioretention at Compton's Corners
  - R2 – Constructed Wetland
  - R3 – Massasoit Ave Tree Trenches
  - R4 – COA Parking Lot

R-1 Compton's Corner Bioretention (Outfall 51)

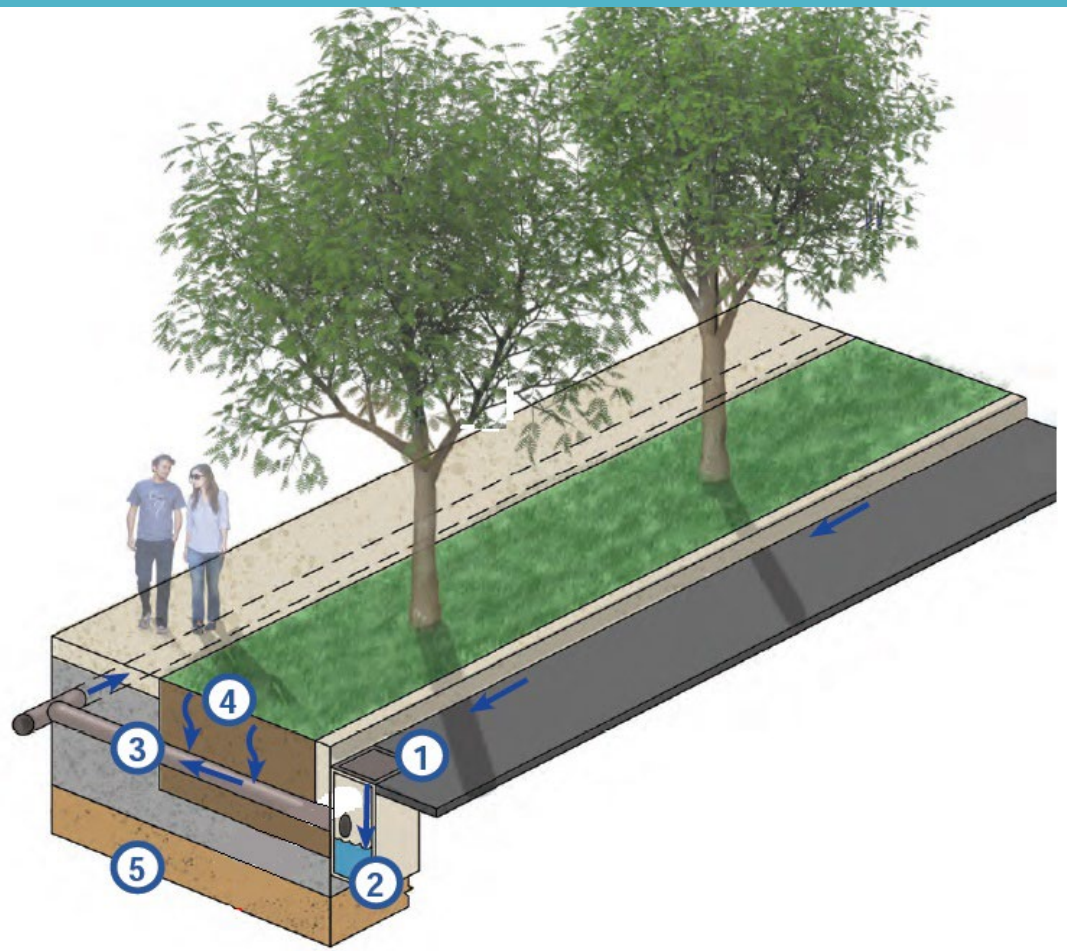
R-2 Harvard St Wet Swale/Wetland (Outfall 50)



R-3 Massasoit/Metacomet Tree Trenches (Outfall 50)

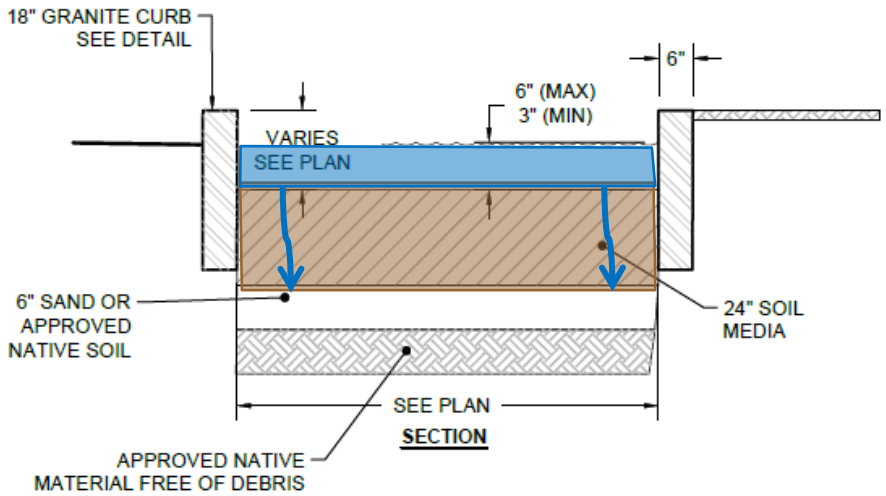


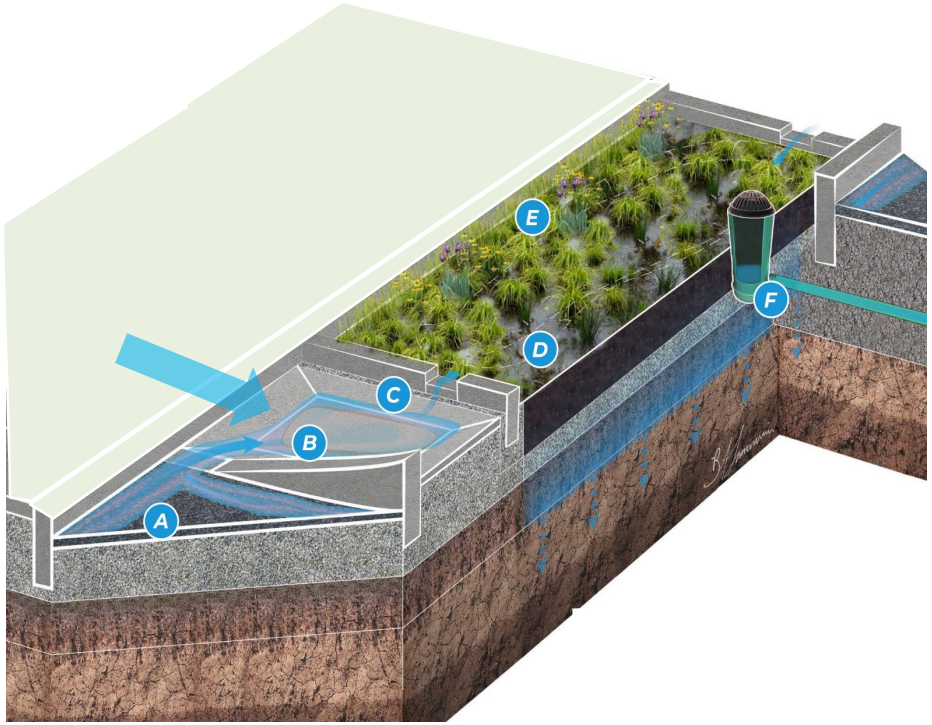
Tree Trench



- Infiltration trench with trees/shrubs for nutrient uptake

R-4 Council on Aging Hard-edged Bioretentions (Outfall 49A)





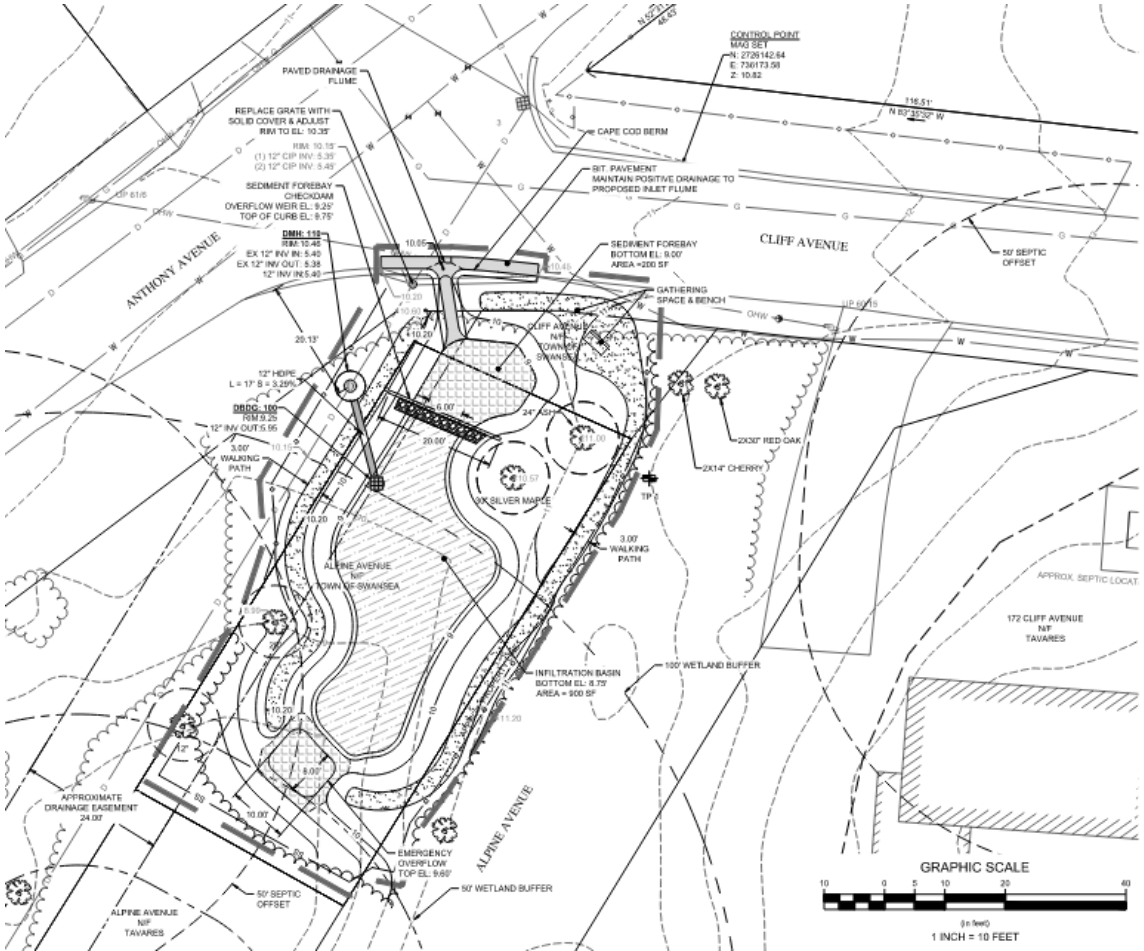
Existing Conditions – Anthony Ave

- Town Road and Vacant Lot
- Existing Stormwater Infrastructure
  - Catch Basin - Clogged
  - No Treatment
- Dense brush with invasive species

Existing Conditions – Anthony Ave

- Total Drainage Area = 1.0 acre
- 44% Impervious (0.45 ac)

3. Anthony Ave Design (Outfall 49B)



Design Components

- Infiltration basin
- Sediment forebay
- Connection to existing pipe outfall
- Treating 1” (WQV) from contributing impervious surfaces

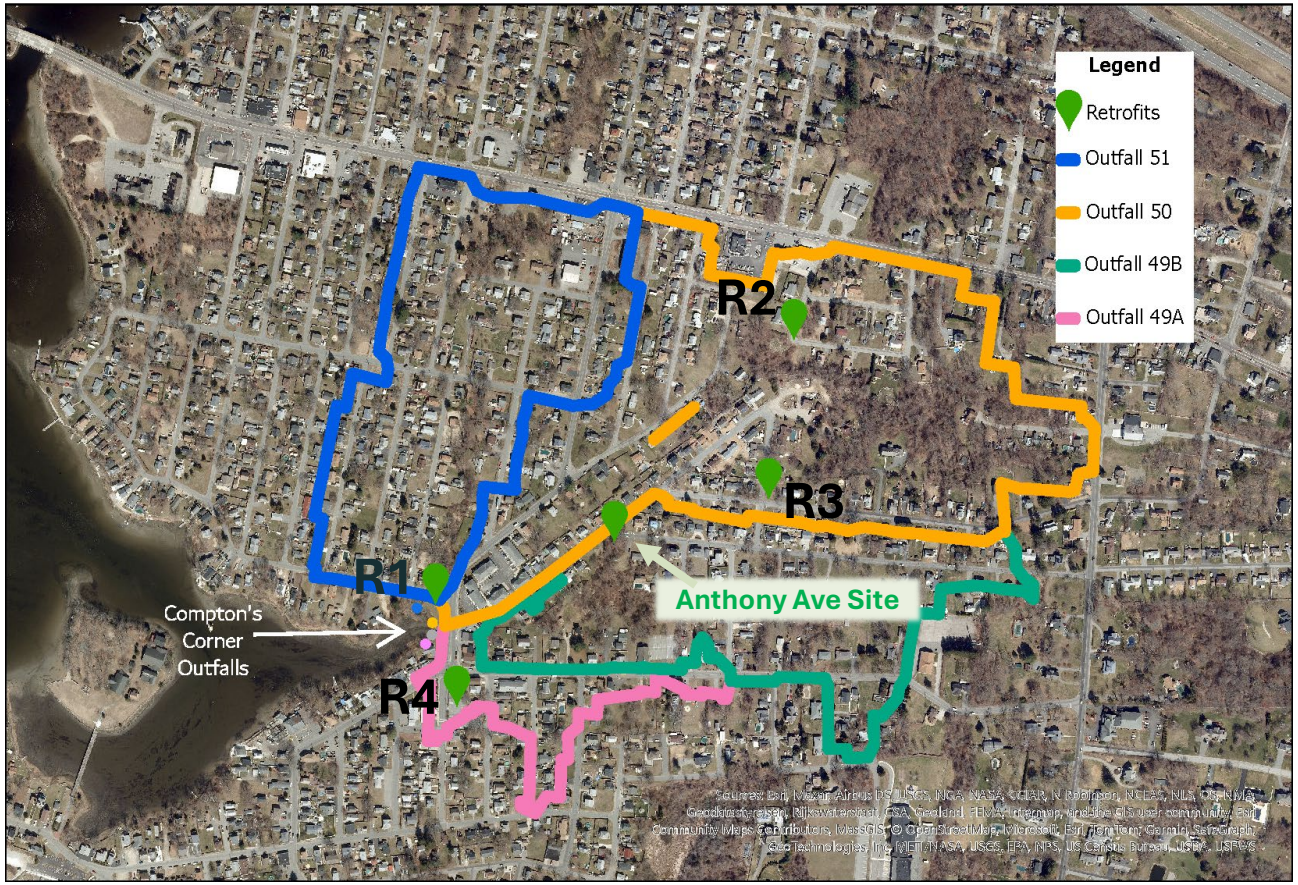
Perspective Rendering (pre & post conditions)

Activity

Share your thoughts on the designs and priority sites!

1. Choose your preferred sites on the voting slip
2. Write your thoughts and comments on the post-it notes on the presentation boards

Compton's Corner Stormwater Outfall Map



Next Steps and More Information

- Your input will guide the Town's future implementation efforts (next few months)
- Secure grants / funding for implementation (1-2 years)
- Further design & permitting (1-3 years)
- Construction (3+ years)

Questions / Comments?

Contact Us

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