



Phillips Brook Watershed Management Plan

Steering Committee
Meeting
May 24, 2016



Phillips Brook



Funding for this project, in part, was provided by the US Environmental Protection Agency (EPA) under Section 604B of the Clean Water Act. The funding is administered by Maine Department of Environmental Protection in partnership with the EPA.



Steering Committee Purpose & Expectations



**You Know
Phillips Brook**

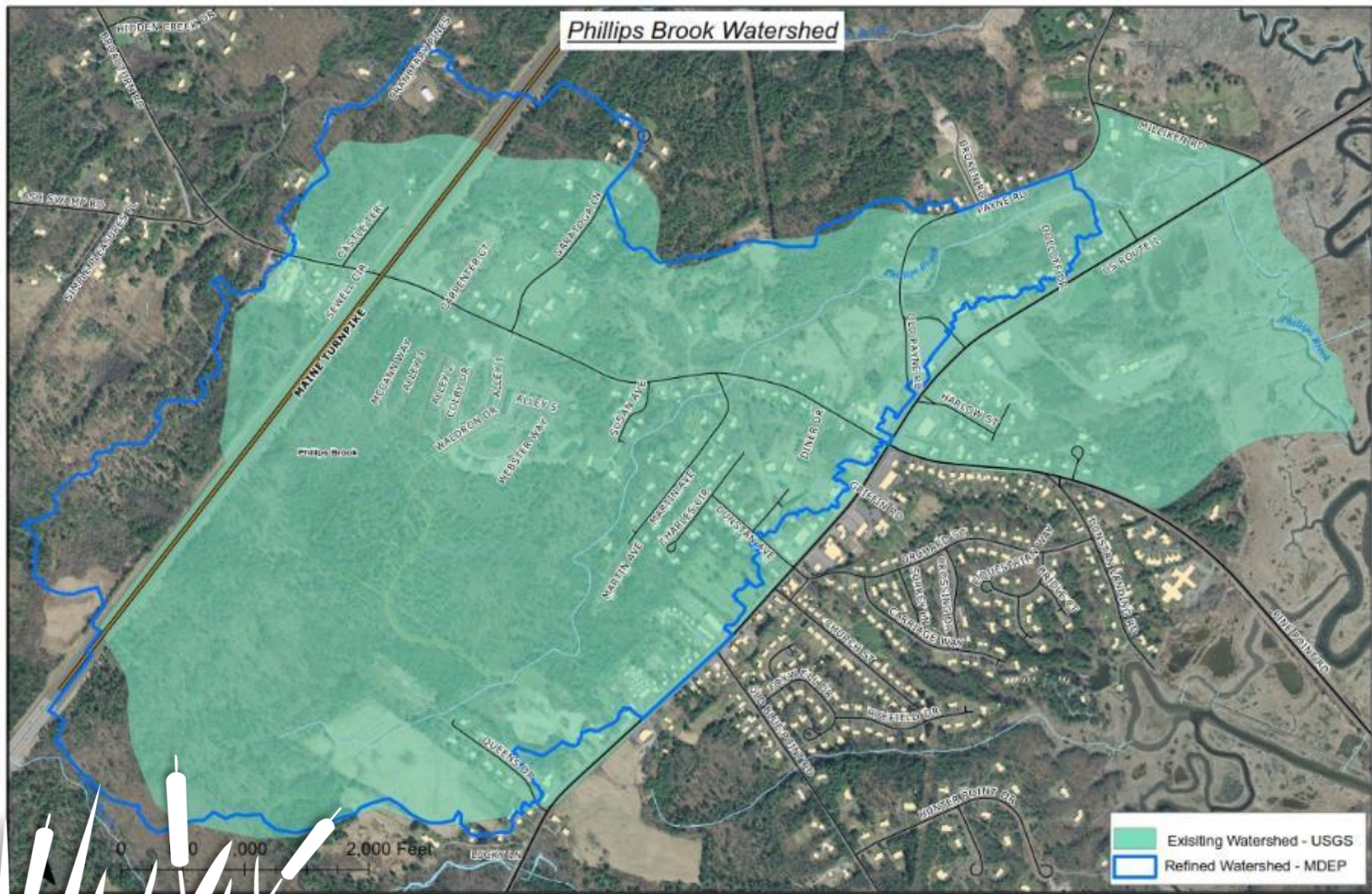


**You Know
People**

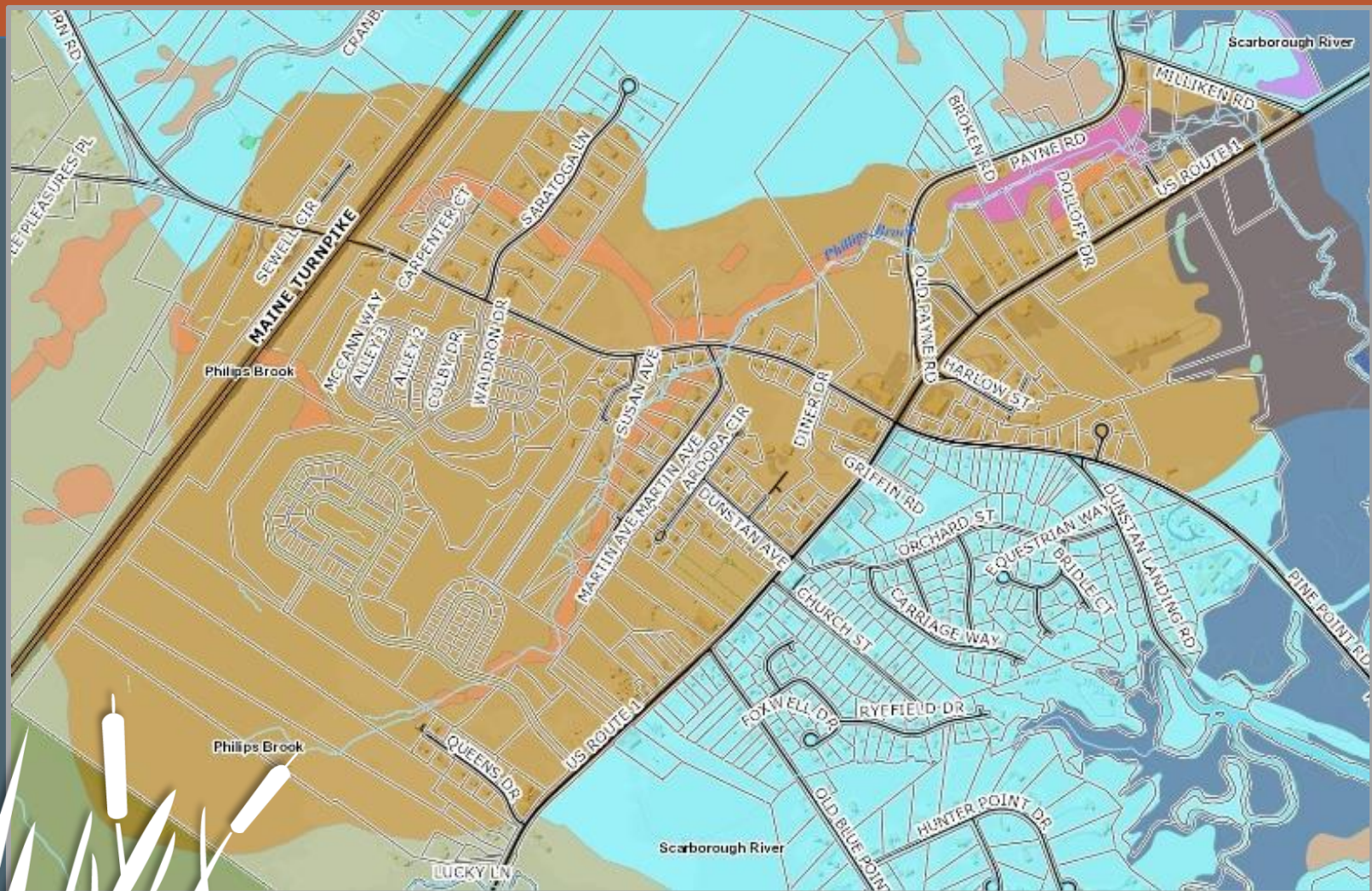


Introductions



Phillips Brook Watershed

Phillips Brook Watershed



Land Use in the Watershed

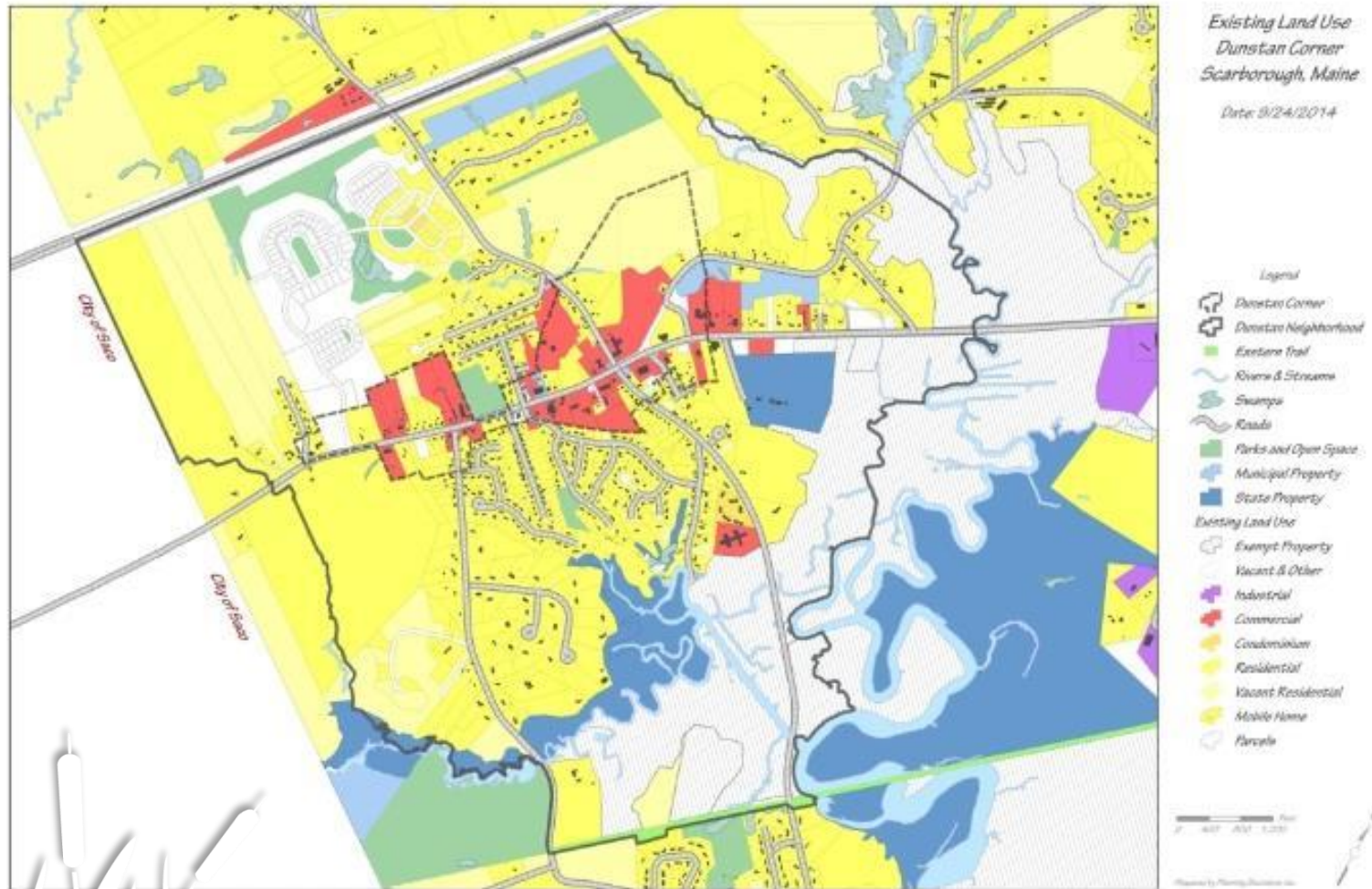
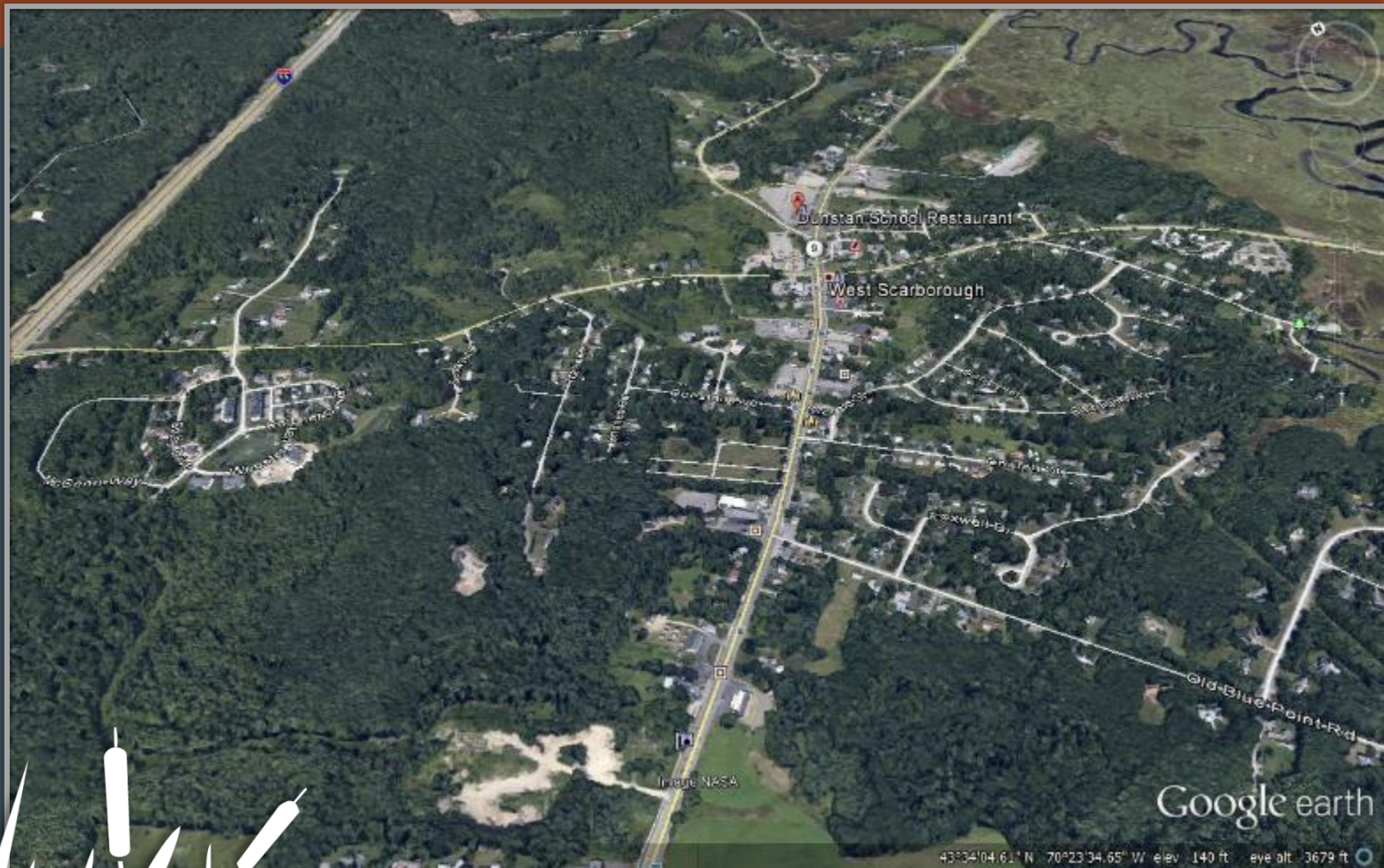
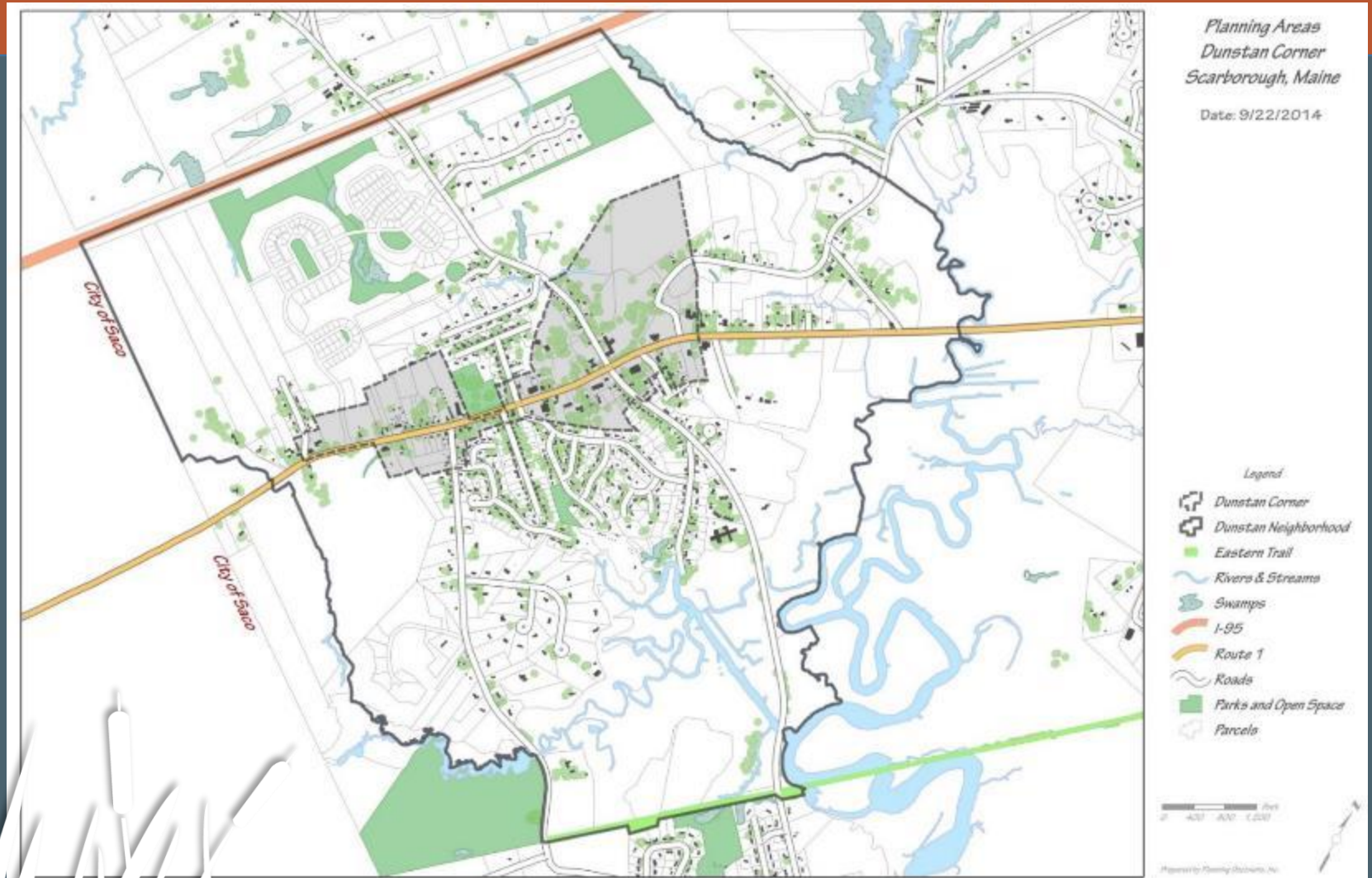


Figure 1: Dunstan Neighborhood: Current Land Use Map

Dunstan Neighborhood



Dunstan Revitalization Strategy



Dunstan Corner Goals

- Foster a renewed village center
- Increase private investment – development & redevelopment
- Enhance visual character & identity
- Build residential neighborhood & diversity
- Improve street network for cars, bikes & pedestrians



Management Plan Goals

- Produce a locally-supported Watershed Management Plan
- Address existing development, redevelopment, and new development
- Gear the Management Plan to be key component in Dunstan Revitalization
- Prioritize watershed needs



Management Plan Goals

- Detail what is needed to improve and protect water quality and aquatic habitat
- Identify an implementation plan



Management Plan Strategy

- 1. Build partnerships.**
- 2. Characterize the watershed to identify issues.**
- 3. Set goals and identify solutions.**
- 4. Design an implementation program.**
5. Implement the watershed plan.
6. Measure progress and make adjustments.



Management Plan Strategy

- Evaluate pre-existing information (underway)
- Stream corridor assessment (initial stream walk done, comprehensive assessment planned)



Management Plan Strategy

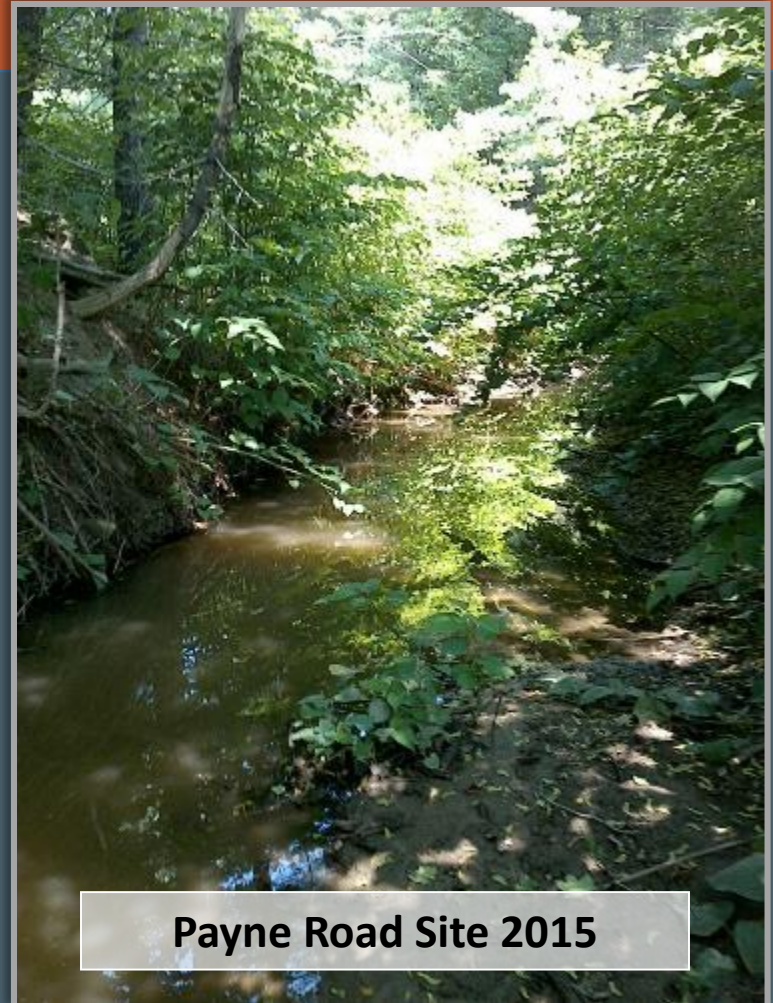


- Water quality monitoring
- Stressor identification
- Stormwater retrofit inventory / Engineering assessment



Phillips Brook Water Quality

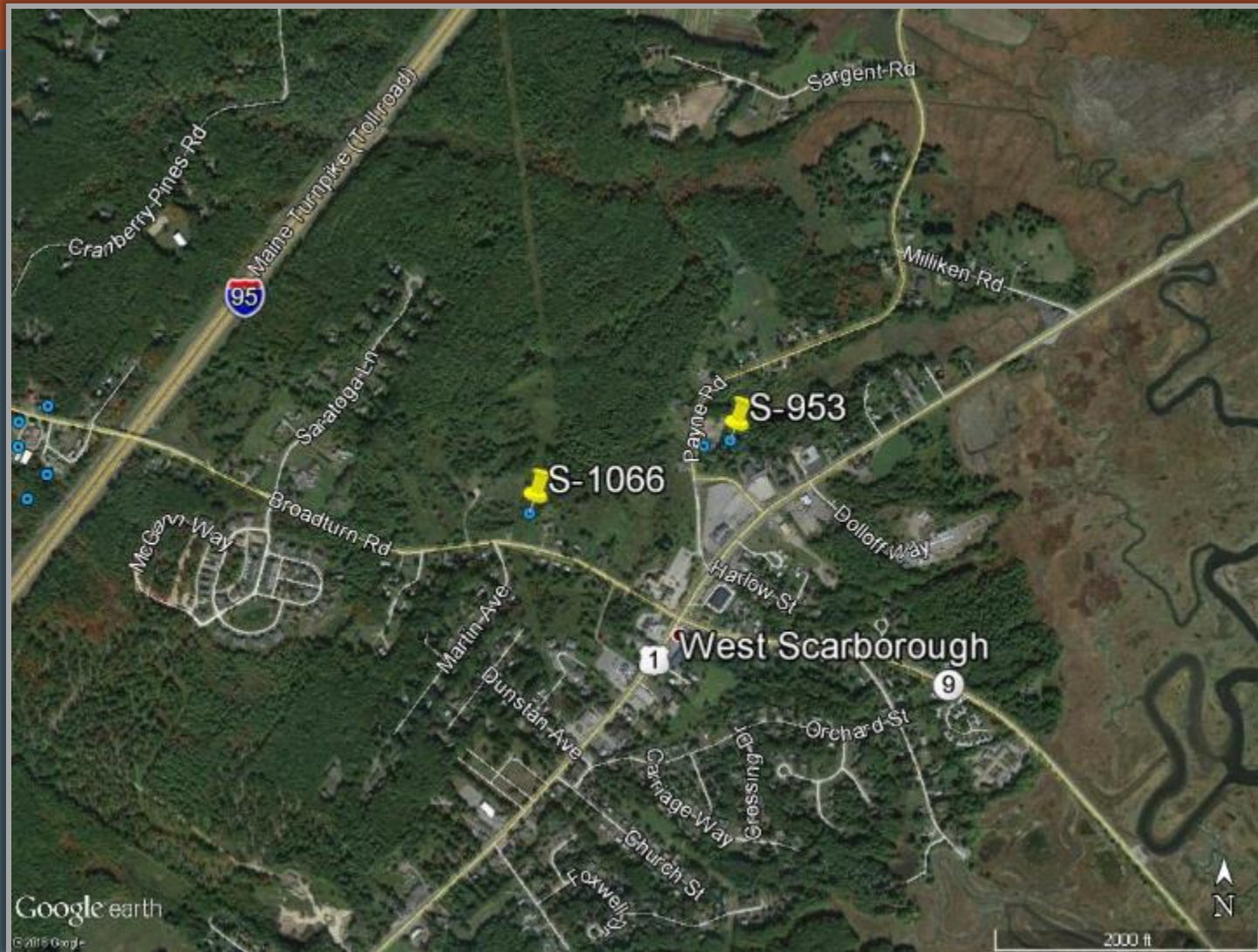
- DEP Lists:
 - NPS Priority Watershed
 - Urban Impaired Stream (Ch 502)
 - Impaired (Integrated Report)
 - Habitat Assessment
 - Dissolved Oxygen
- Monitoring:
 - Macroinvertebrates 2010, 2015
 - Instantaneous samples 2006
 - Continuous monitoring 2010



Payne Road Site 2015



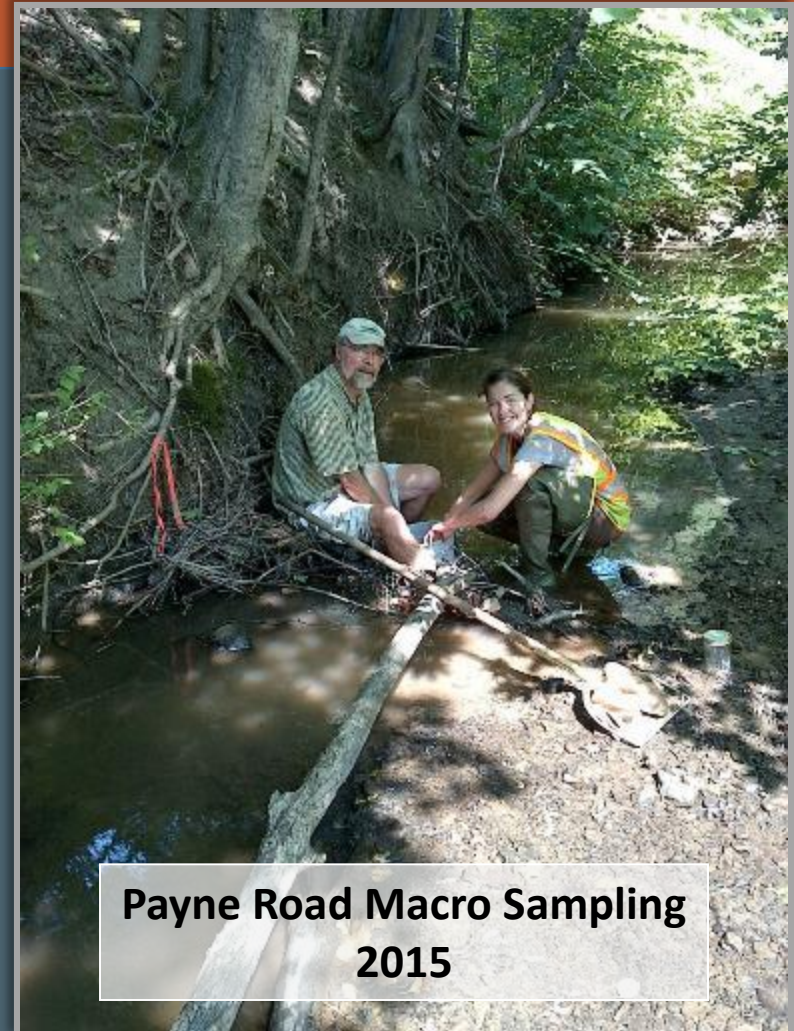
Phillips Brook Monitoring Locations



Macroinvertebrate Sampling

Class C stream

- 2010 – Indeterminate
 - Payne Rd
 - decent diversity, not enough bugs
- 2015 – Met standards, barely
 - Aquatic community showing stress
 - Tolerant organisms were dominant
 - Payne Rd
 - decent diversity, not enough bugs
 - Broadturn Rd
 - more bugs, less diversity

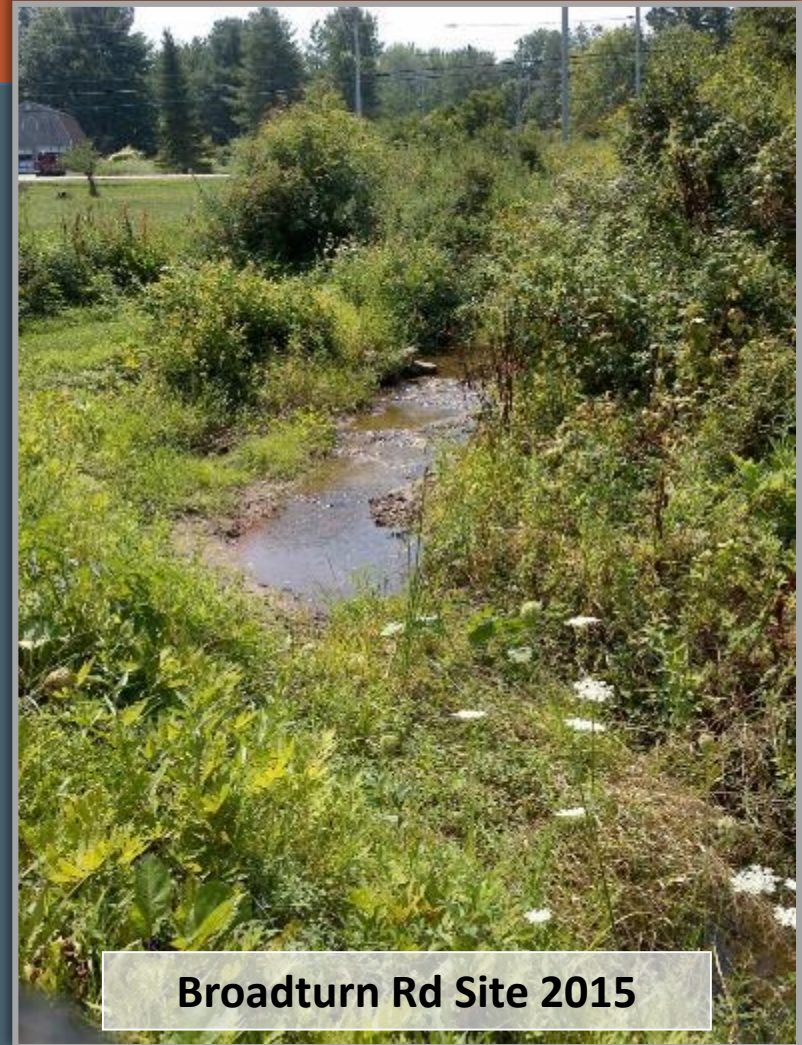


**Payne Road Macro Sampling
2015**



Other Monitoring

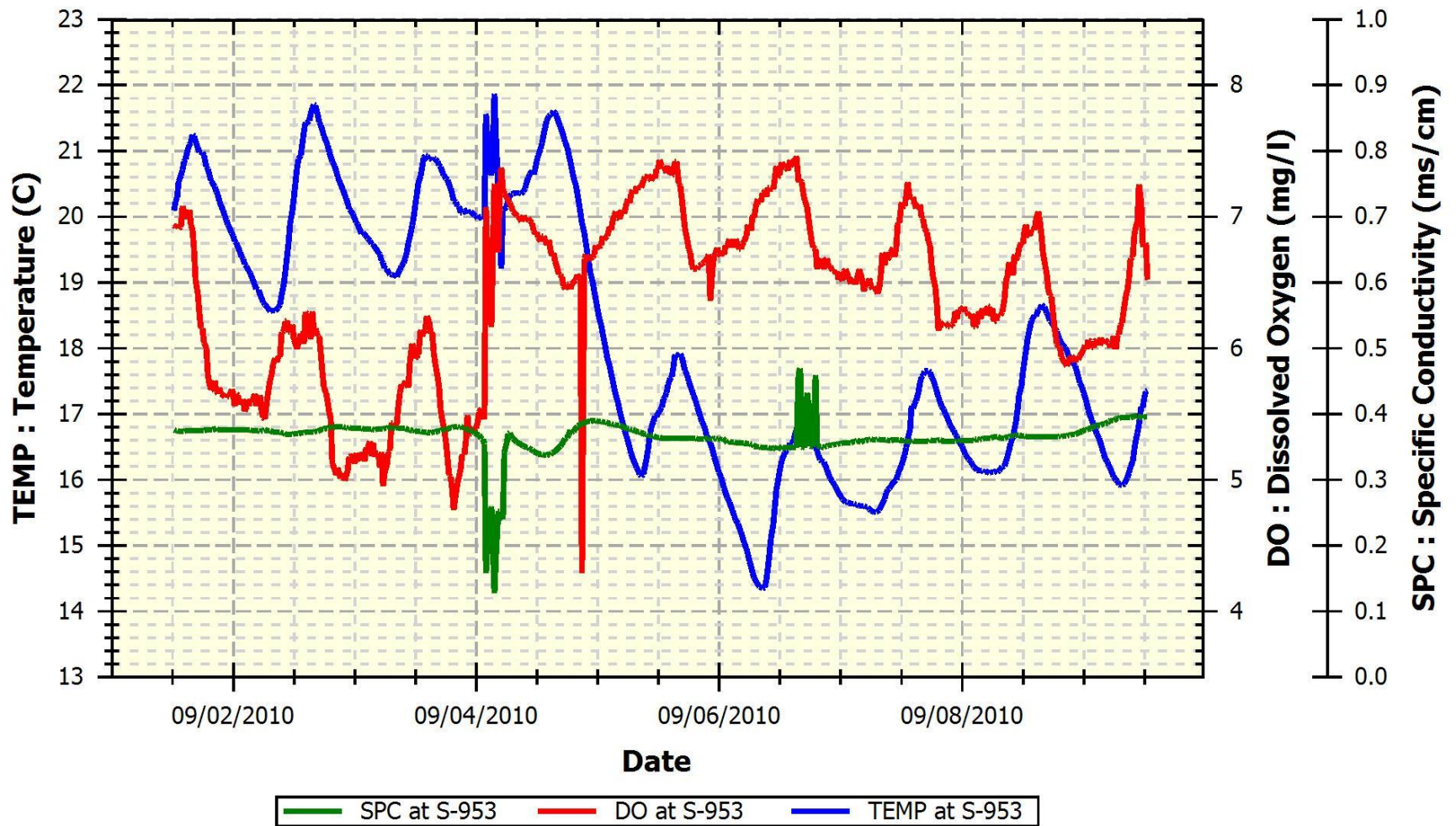
- 2006
 - For TMDL
 - 5 sampling events
 - August, Sept, Nov
 - DO, SPC, Temp, pH, N, P, TSS, metals, E. Coli, chlorophyll a
- 2010
 - Sonde deployment
 - Sept 1 to Sept 9
 - DO, SPC, Temp



Broadturn Rd Site 2015



Station ID: S-953



Phillips Brook Water Quality Summary

What we think are stressors so far

- Flow regimes
 - high and low
- Habitat issues
 - stream sediment moves around
- DO lows
- Possible nutrient issue?
- Conductivity high on one tributary
 - concerns for future



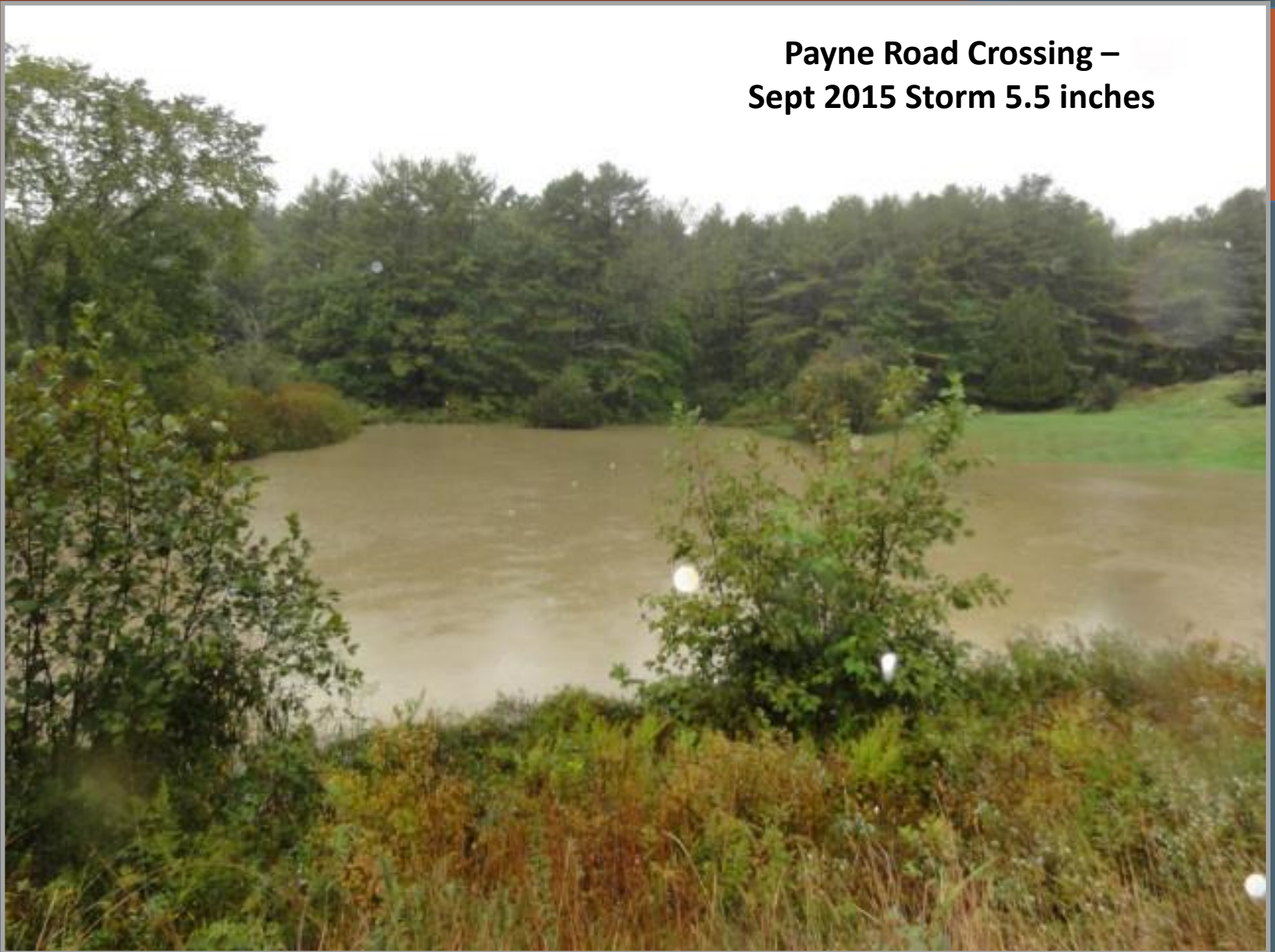
Payne Road Algae 2015





**Broadturn Rd Crossing –
Sept 2015 Storm 5.5 inches**

**Payne Road Crossing –
Sept 2015 Storm 5.5 inches**



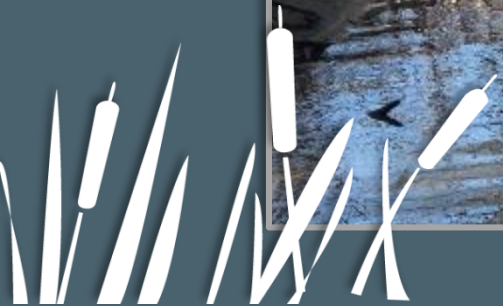
Stream Corridor Assessment



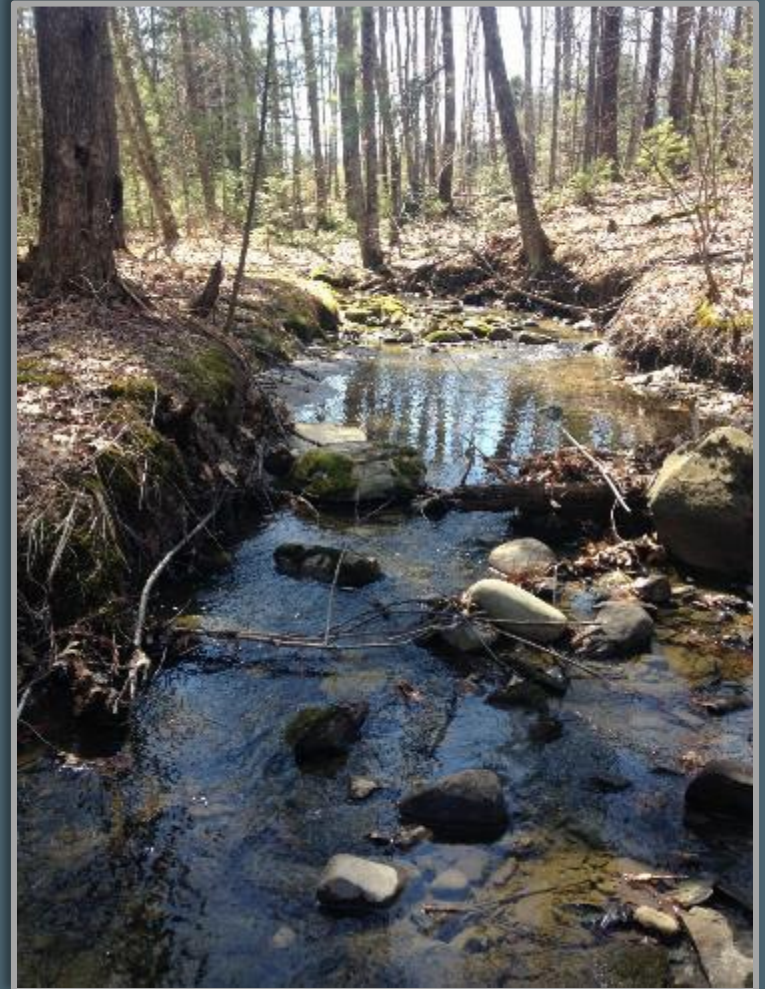
Road Crossings



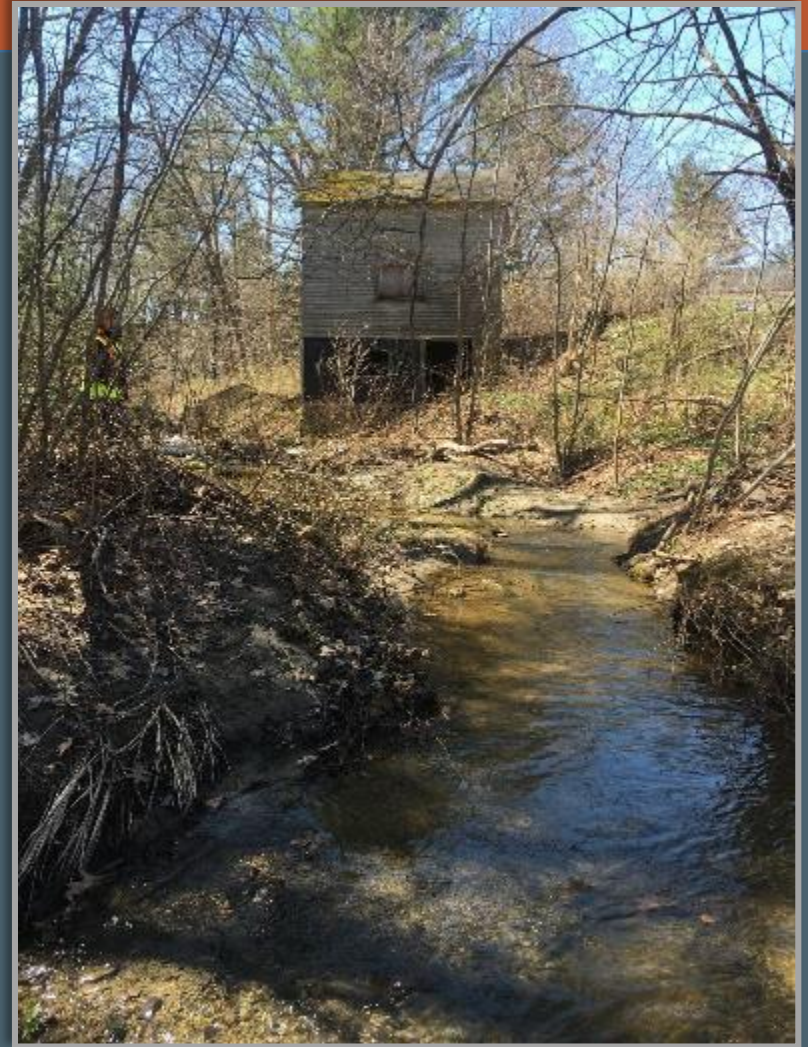
Loss of Floodplain



Channel Alterations



Channel Alterations



Community Involvement

- Who else should be involved in the committee?
- Who should receive outreach from the committee?
- What are your main concerns about development within the watershed?
- What known stressors exist within the watershed?
- Are there any legacy toxic sources?



Questions?

Angela Blanchette

Scarborough Town Engineer
ablanchette@ci.Scarborough.me.us

Kristin Feindel

DEP Grant Administrator
kristin.b.feindel@maine.gov

Jodie Keene

CCSWCD Outreach Coordinator
jkeene@cumberlandswcd.org

