

Weir Creek Tidal Restoration

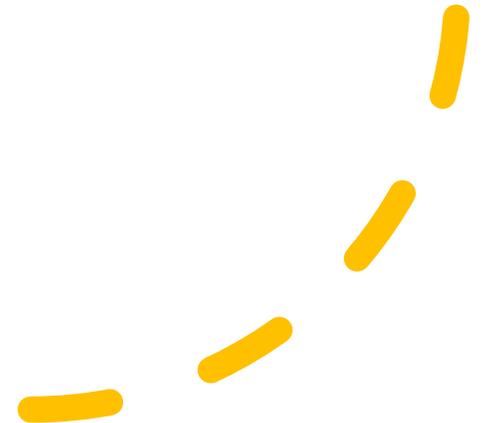
April Wobst, Restoration Ecologist
Association to Preserve Cape Cod

Enter your Name and Email in
the Chatbox to Sign Up for
Future Project Meeting
Updates

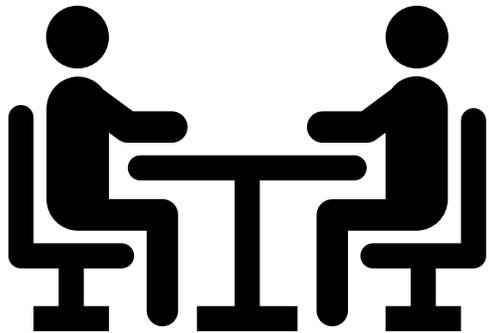


Overview

- Salt Marshes and Why they Matter
- The Problem
- The Solution: Tidal Restoration
- Weir Creek Project Summary and Goals
- General Questions
- Breakout Group Discussion
- Report Back and Next Steps



Meeting Goals



- Share Plans for Project
- Gather Support for Project
- **Understand What Community Values**
- **Listen to Concerns and Questions**
- **Inform Study and Data Collection**

APCC Restoration Coordination Center

- Established in 2015
- To assist towns and community groups with planning and implementation



Improve Water Quality and Habitat for the Environment and the Community



Enhancing Community Resilience to Climate Change by Restoring Degraded Ecosystems



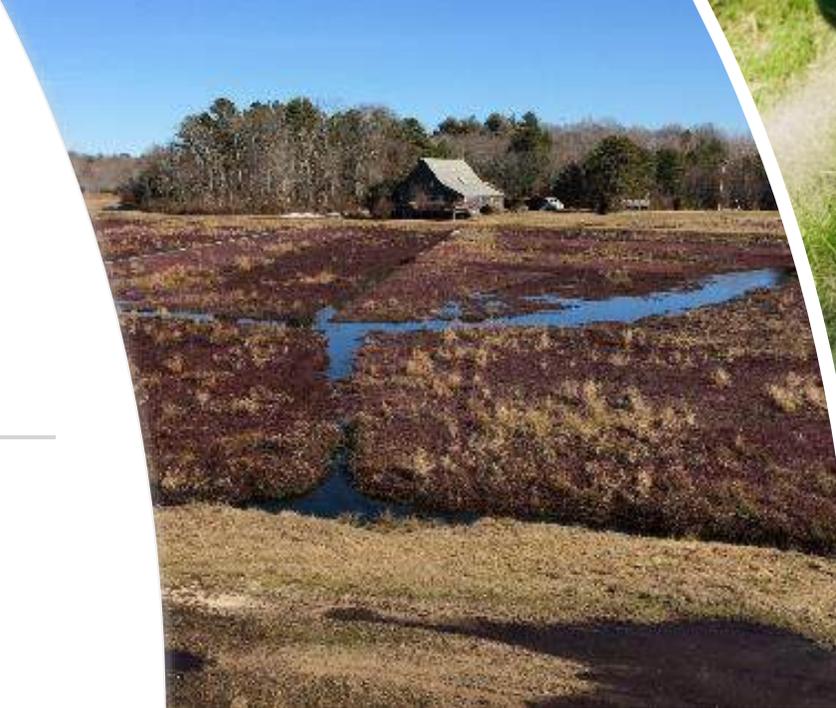
The Problem: Threats to our Salt Marshes

- **Development**
- Pollution
- Invasive Species
- Climate Change – Sea Level Rise



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The Problem:
Threats to our
Salt Marshes

- Development
- Pollution
- **Invasive Species**
- **Climate Change – Sea Level Rise**



Legend

★ Tidal Restrictions

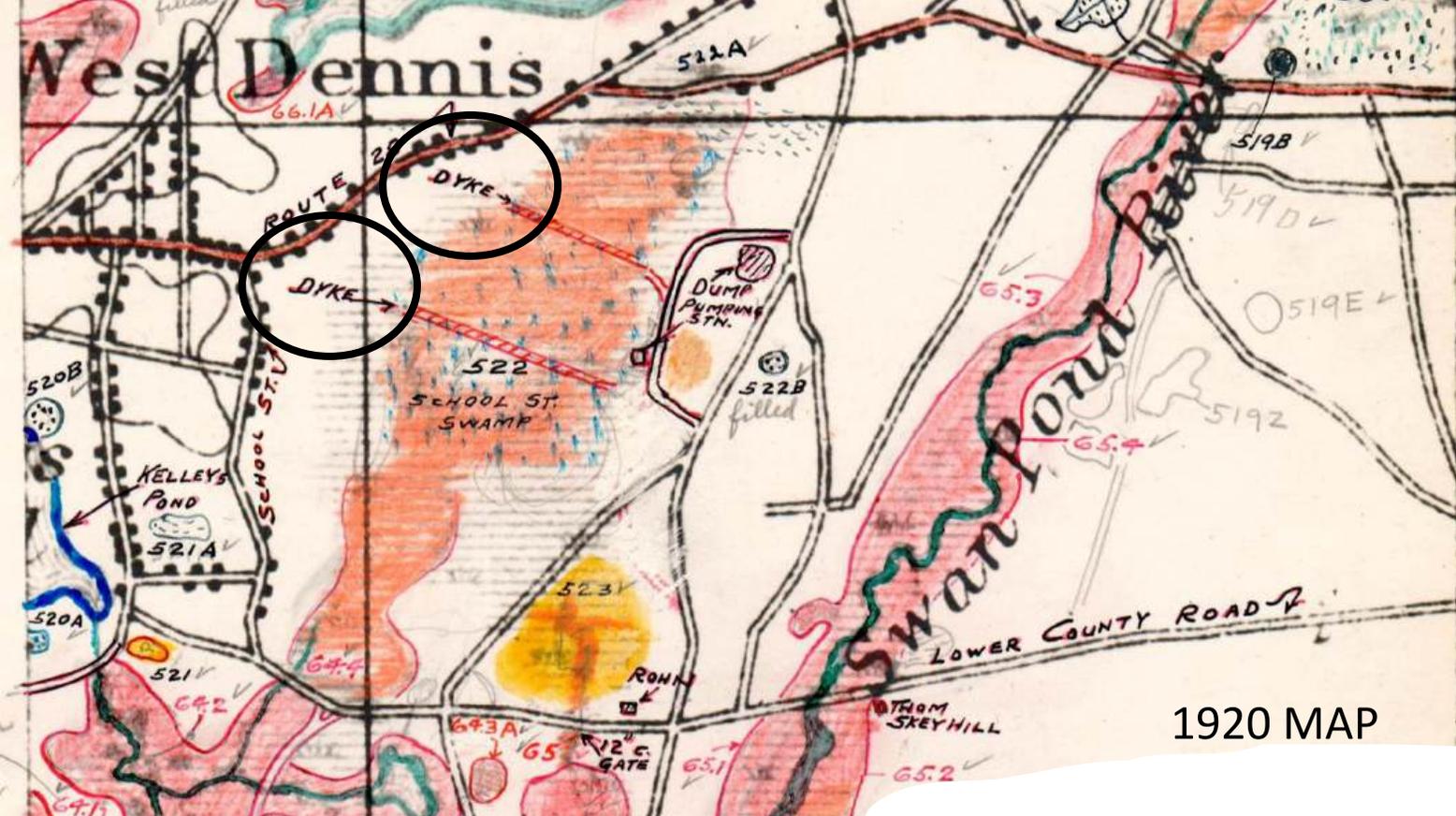
Wetland Type

 Estuarine and Marine Wetland

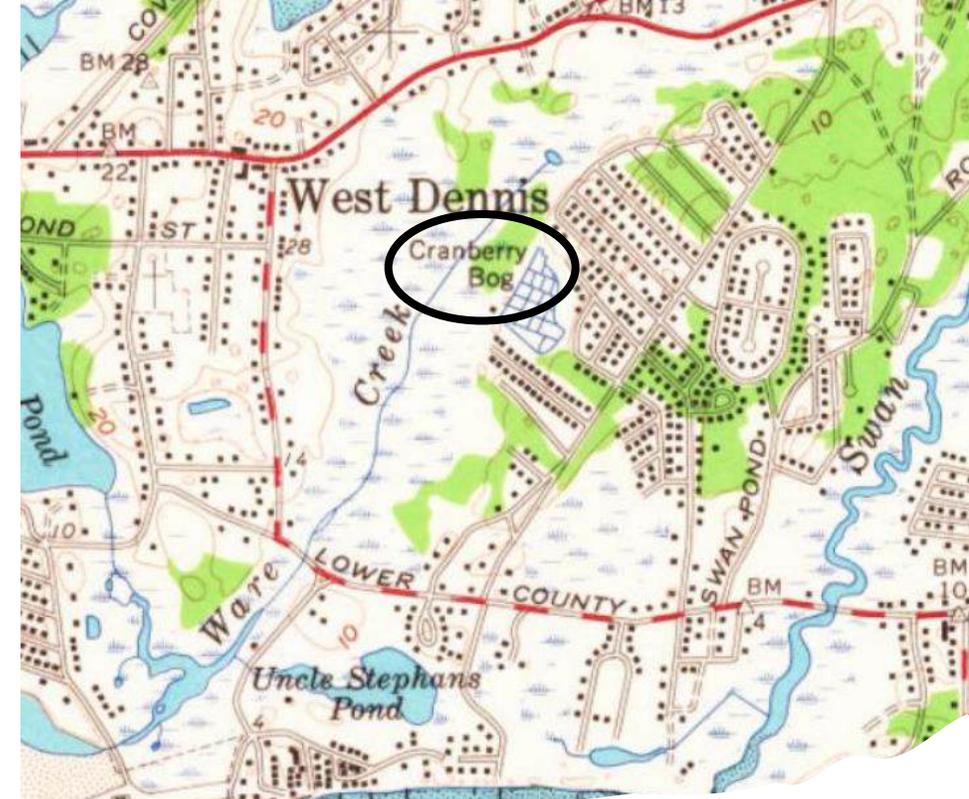
 Freshwater Forested/Shrub Wetland



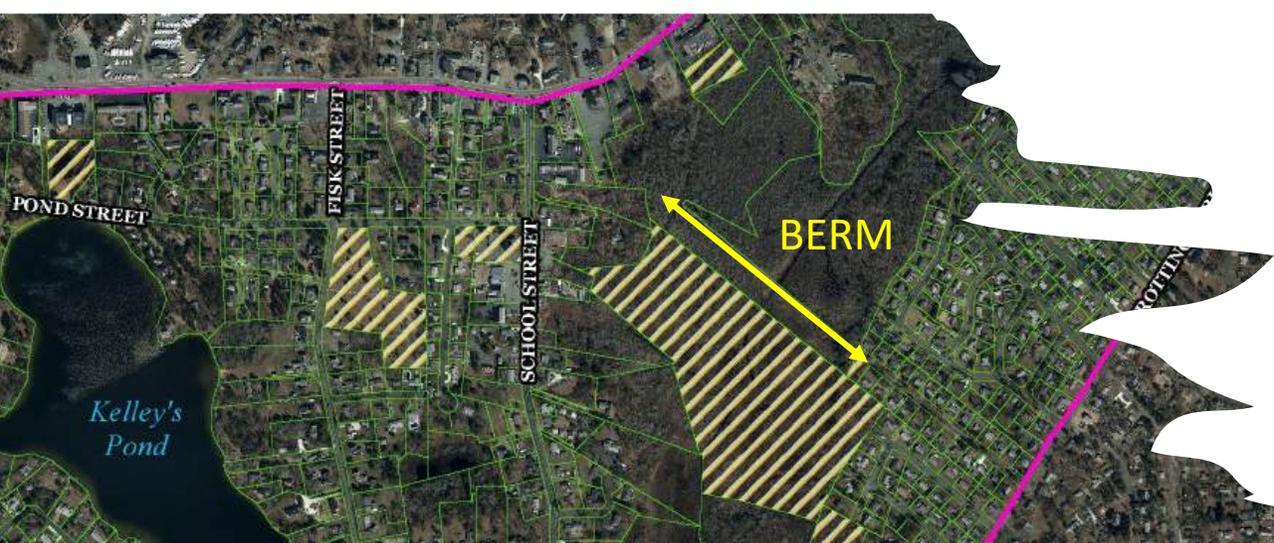
Tidal Restrictions



1920 MAP



1961 MAP



Piecing Together the History of the Site

How to Restore a Salt Marsh?

- Tidal Restoration
- Fish Passage Improvements
- Stormwater Improvements
- Revegetation
- Invasive Species Management
- *Ditch Remediation*
- *Runneling*
- *Thin Layer Deposition*





Benefits of Restoration

- **Ecological Value**
- **Human Use Value**
- **Ecosystem Services**

Salt marshes provide the nursery habitat for more than 75% of commercial fishery species!

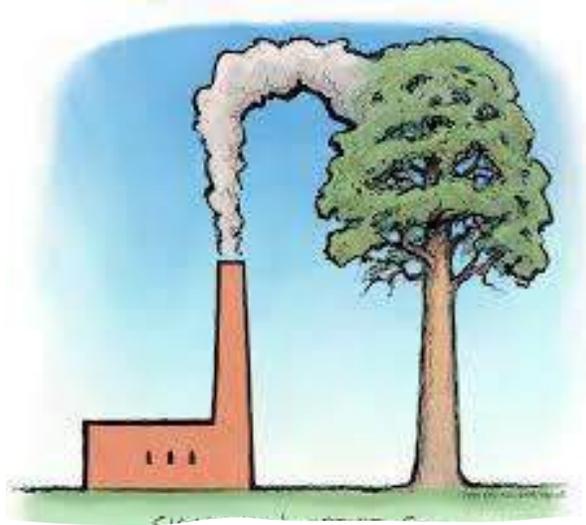




Benefits of Restoration

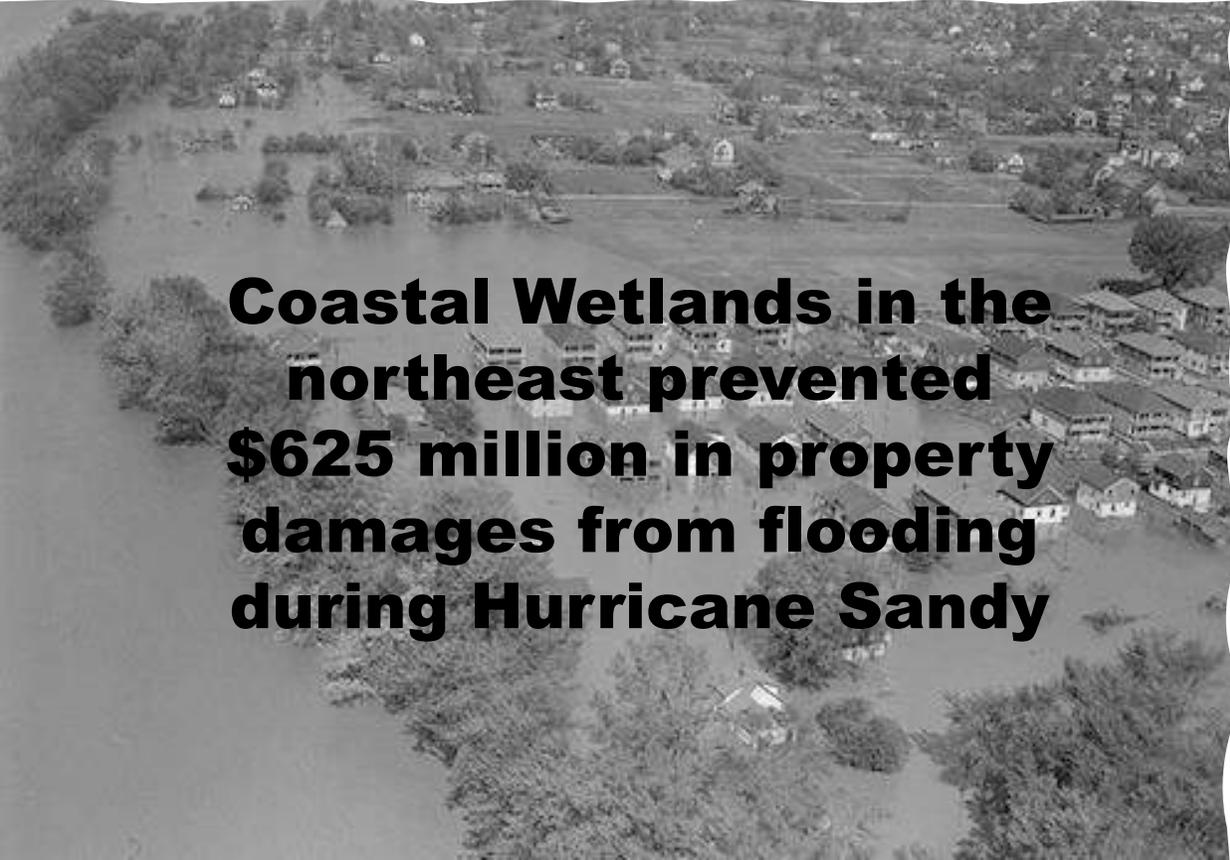


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- **Human Use Value**
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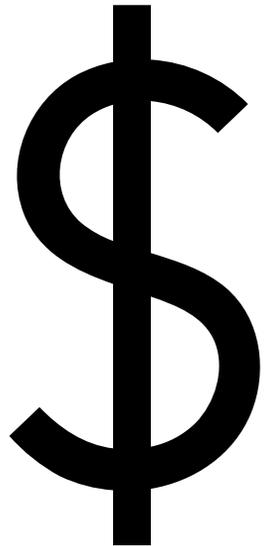


Coastal Wetlands in the northeast prevented \$625 million in property damages from flooding during Hurricane Sandy

Weir Creek Project Summary

- Identified Priority by Town, APCC, Regional and Federal Partners (CCWRRP)
- APCC Applied for and was Awarded Two Grants for Planning and Design (2023-2024)
- EPA Southeast New England Program Watershed Implementation Grant
 - Feasibility Study, Culvert Design Alternatives, and Outreach
- NFWF Coastal Resilience Grant
 - Feasibility Study, Culvert Design Alternatives, Outreach and Community Engagement and 30/60% Design

Budget



APCC: \$42,888

Consultant: \$319,000

Additional Scope (Outreach, Survey, Design, Permitting):
\$56,000

In-Kind Contributions (Match): \$73,292

Total Project Budget: \$491,180

Legend

— Project Site Boundary

★ Tidal Restrictions

Wetland Type

— Estuarine and Marine Wetland

— Freshwater Forested/Shrub Wetland



Project Area



DE-4 Fisk Street Culvert
to Kelley's Pond





Weir Creek Main
Channel
Lower County
Road



DE-5 Lower
County Road
Weir Creek Main
Channel



Weir Creek – Lower
County Road
North of Uncle
Stephens Pond



DE-6 Lower
County Road
Uncle Stephens
Pond

Lighthouse Road Flooding





©gerald beetham for APCC



Lighthouse Inn Road Flooding

Weir Creek Tidal Restoration Goals

Short-term Goals:

- Understand Current Condition and Flooding Impacts to Community
 - *Series of Stakeholder Engagement Meetings*
- Determine Feasibility of Tidal Restoration
 - *H&H Study and Alternatives Analysis*
- Develop 30/60% Design Plans with Cost Estimates for Next Phase

Long-term Goals:

- Restore Tidal Flow to the Salt Marsh
- Improve Health and Habitat within Weir Creek and Bass River Watersheds
- Increase Resilience of System and Community to Impacts of Climate Change

Project Team

Association to Preserve Cape Cod

Town of Dennis

Tighe & Bond with Woods Hole Group

USDA Natural Resources Conservation Service

Cape Cod Conservation District

Friends of Bass River

Dennis Conservation Land Trust

Cape Cod Mosquito Control

Cape Cod Commission

MA Division of Ecological Restoration



WEIR CREEK TIDAL RESTORATION MODELING AND DESIGN

Scope of Services

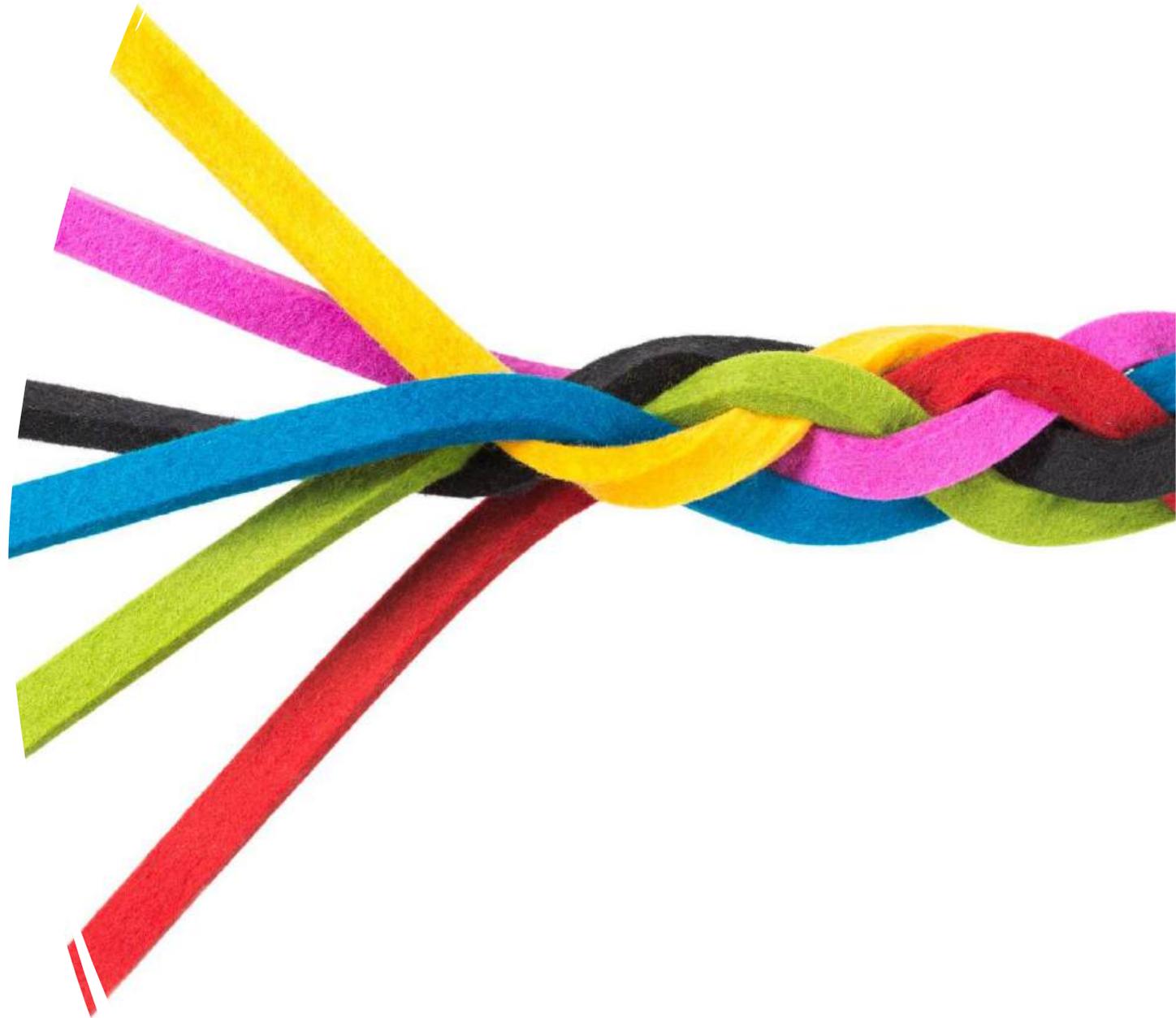
Eric Ohanian, PE, Tighe & Bond
Arden Herrin, Woods Hole Group

Questions



Breakout Group Session Overview

- 30 Minutes
- Groups of 5-10
- Provide Your Input
- Share Your Knowledge
- Talk About Questions and Concerns
- 15 Minutes Report Back and Wrap Up





Breakout Group Session Questions

1. What do you value about Weir Creek? (Positives and Negatives)
2. What changes have you seen or experienced? What can you tell us about the history of the marsh?
3. What outcomes would you ideally like to see from this project? (Near and Long-term)
4. What concerns or questions do you have?

Next Steps

- Write Up and Consolidate Input Received
- Data Collection
- Modeling
- Culvert Alternatives
- **Public Meeting – January 2024**



Thank You for Coming

Sign In – Name and Email

For More Information and
Project Updates Go To:

www.apcc.org/weir-creek

