Weir Creek Tidal Restoration

April Wobst, Restoration Ecologist

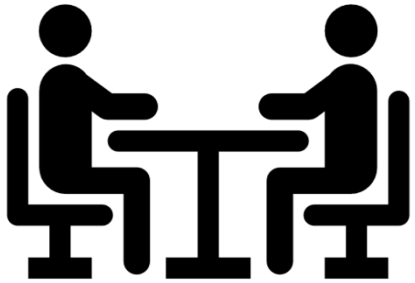
Association to Preserve Cape Cod

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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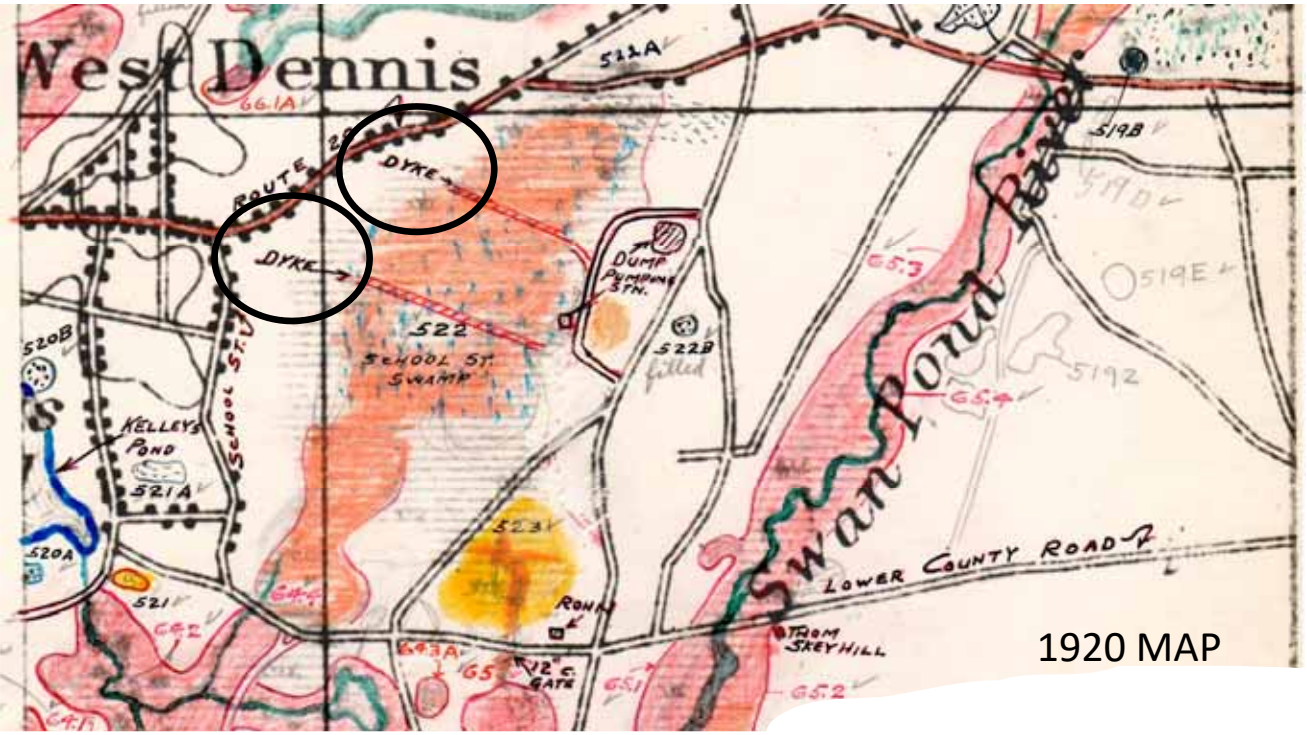
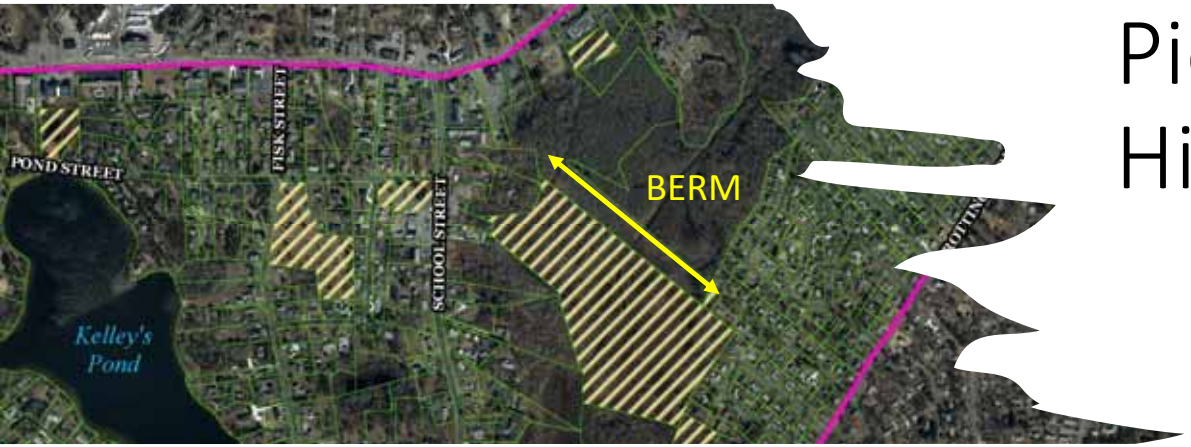
- **Climate Change – Sea Level Rise**

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!

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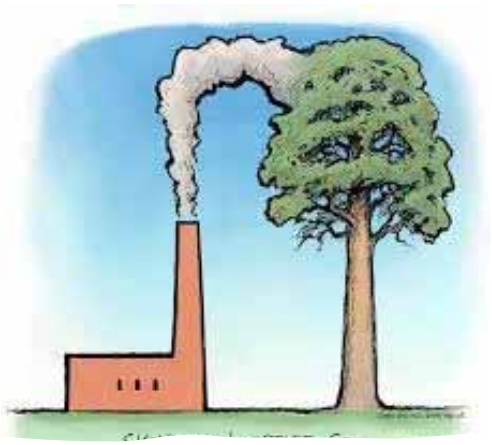

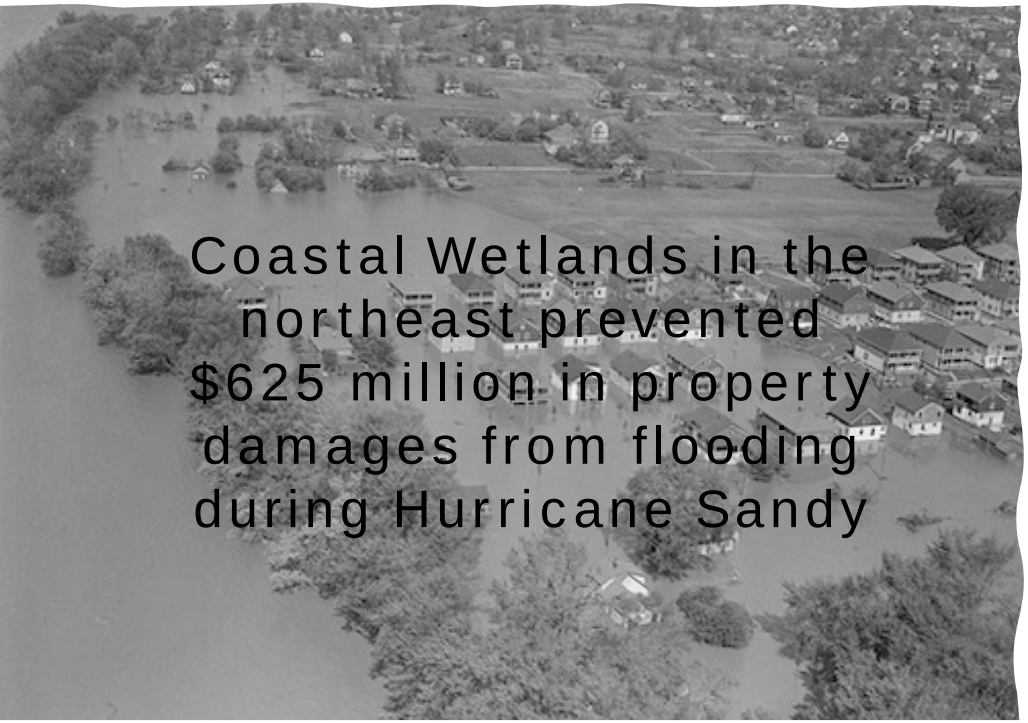

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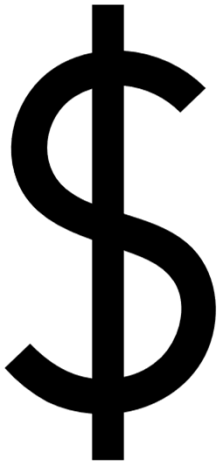
- **Ecosystem Services**

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



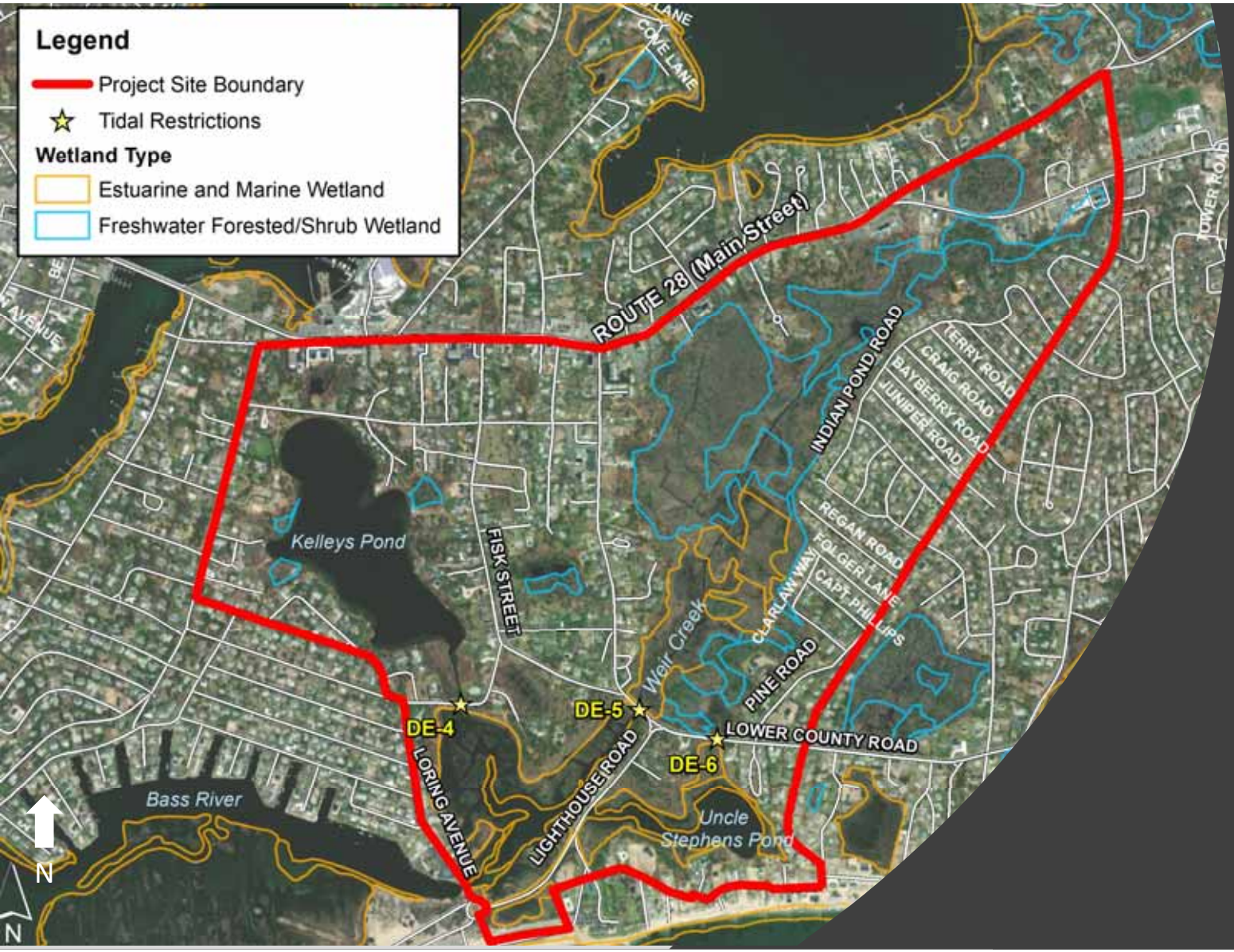
APCC: $42,888

Consultant: $319,000

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

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

Total Project Budget: $491,180



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

Credit: Carol Hawk - Nov. 27, 2022 High Tide

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

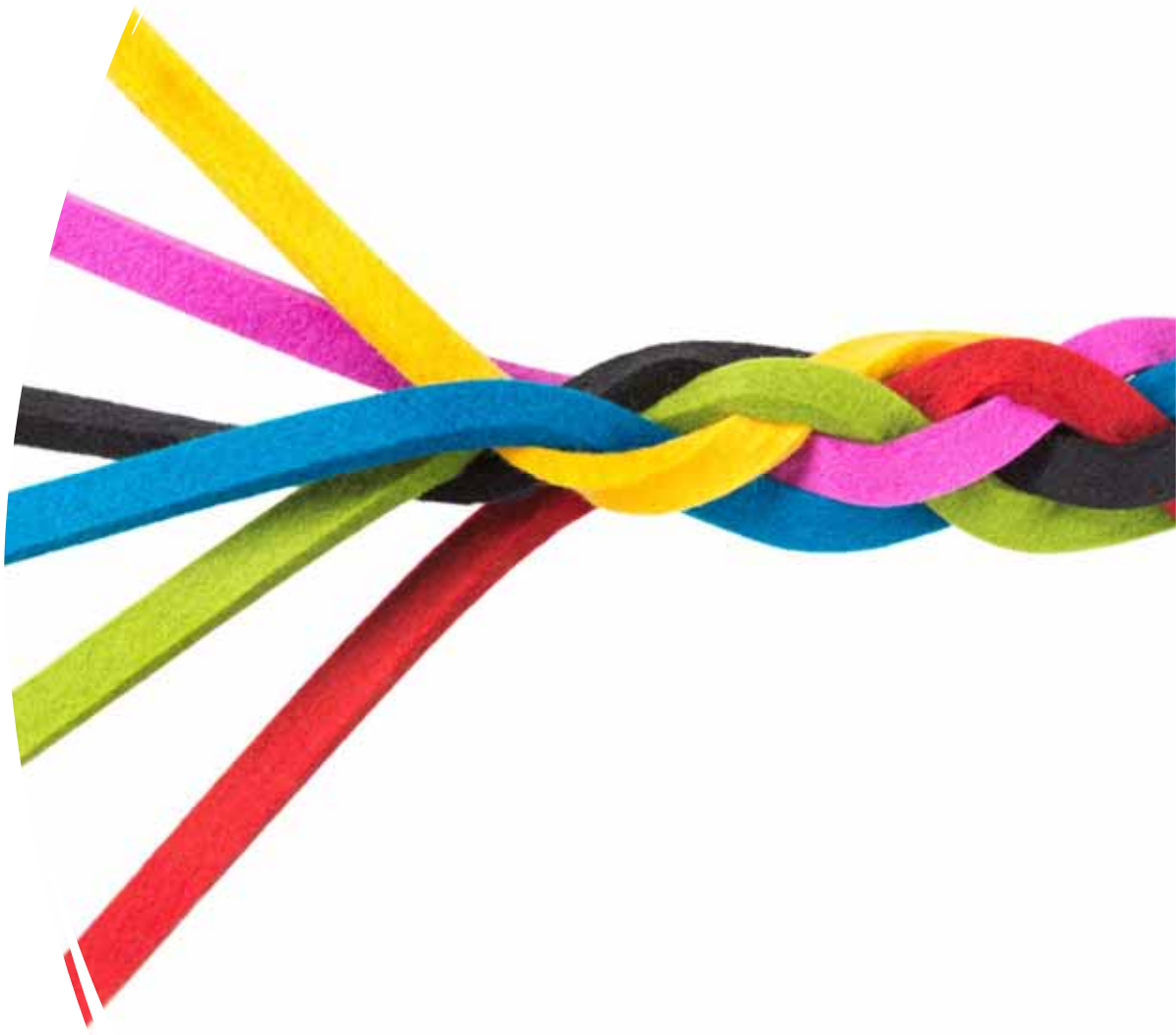
Eric Ohanian, PE, Tighe & Bond
Arden Herrin, Woods Hole Group

Tighe&Bond

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

APCC Association to Preserve Cape Cod

Town of Dennis Massachusetts

Tighe&Bond

WOODS HOLE GROUP FOR EARTH, FROM SPACE