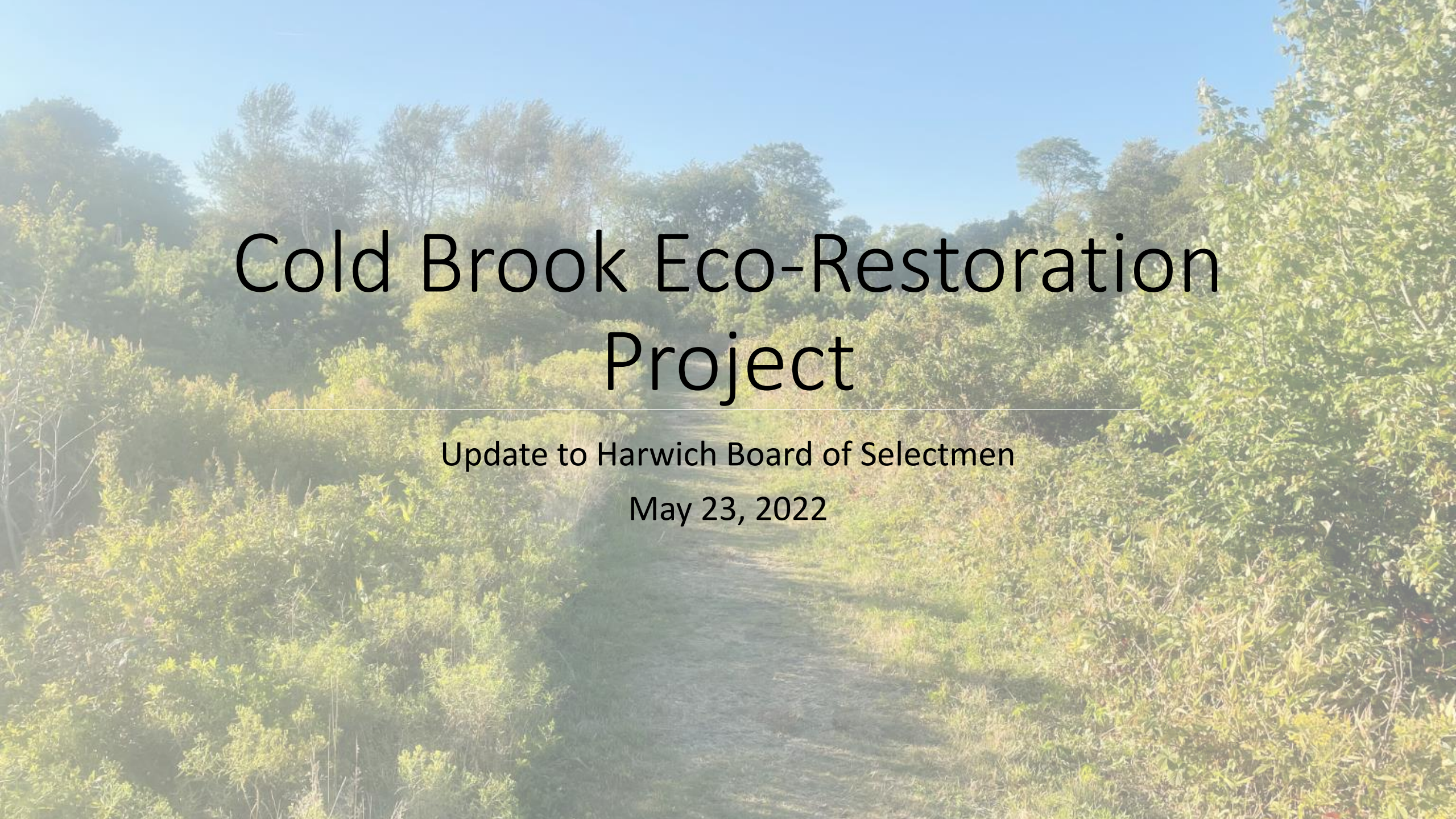
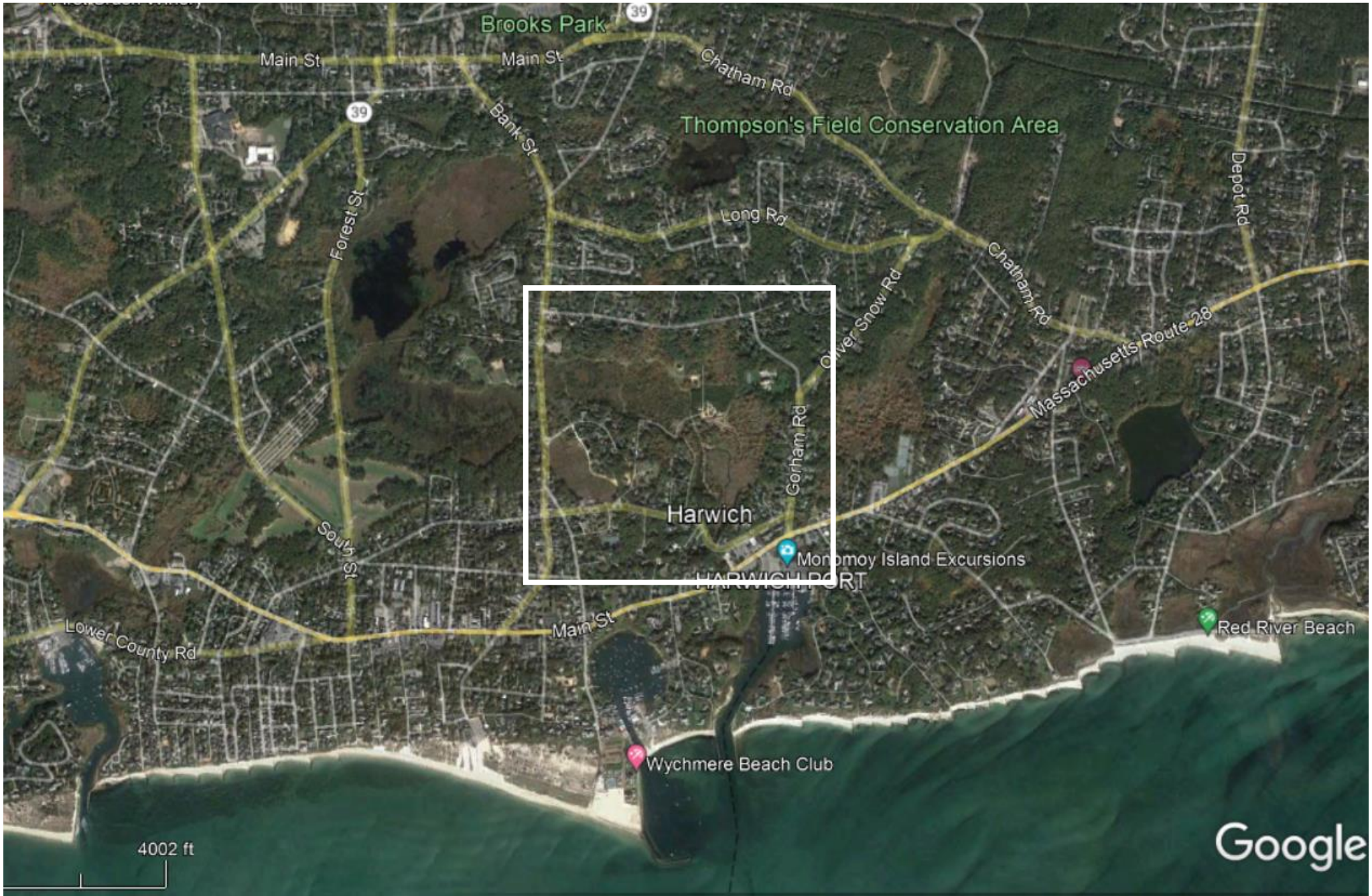


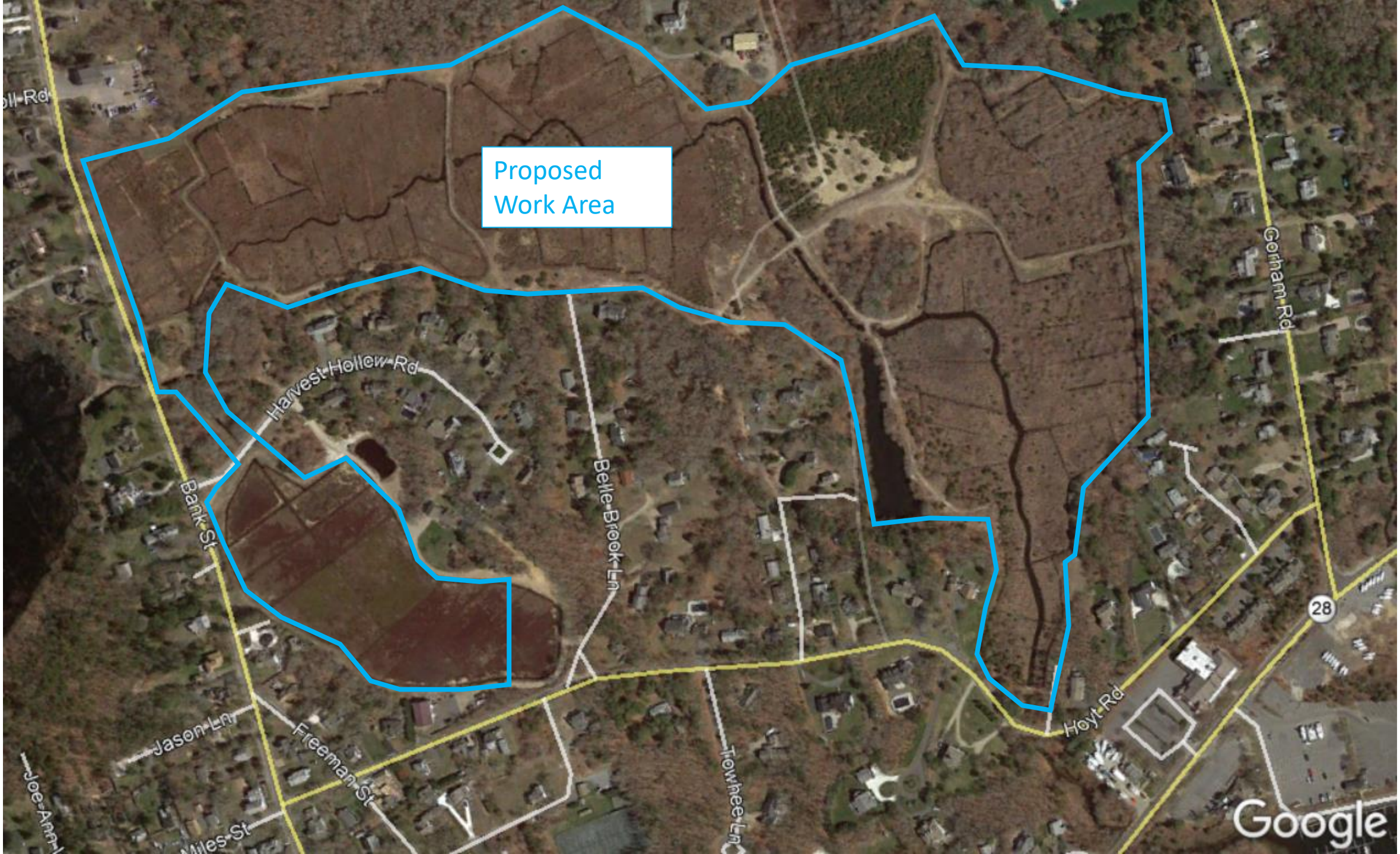
Cold Brook Eco-Restoration Project

Update to Harwich Board of Selectmen

May 23, 2022

2019 Air Photo and Project Site Location




Proposed
Work Area
Harvest Hollow Rd
Bank St
Belle Brook Ln
Gorham Rd
28
Hoyt Rd
Jason Ln
Freeman St
Miles St
Towhee Ln
Google

Project Team

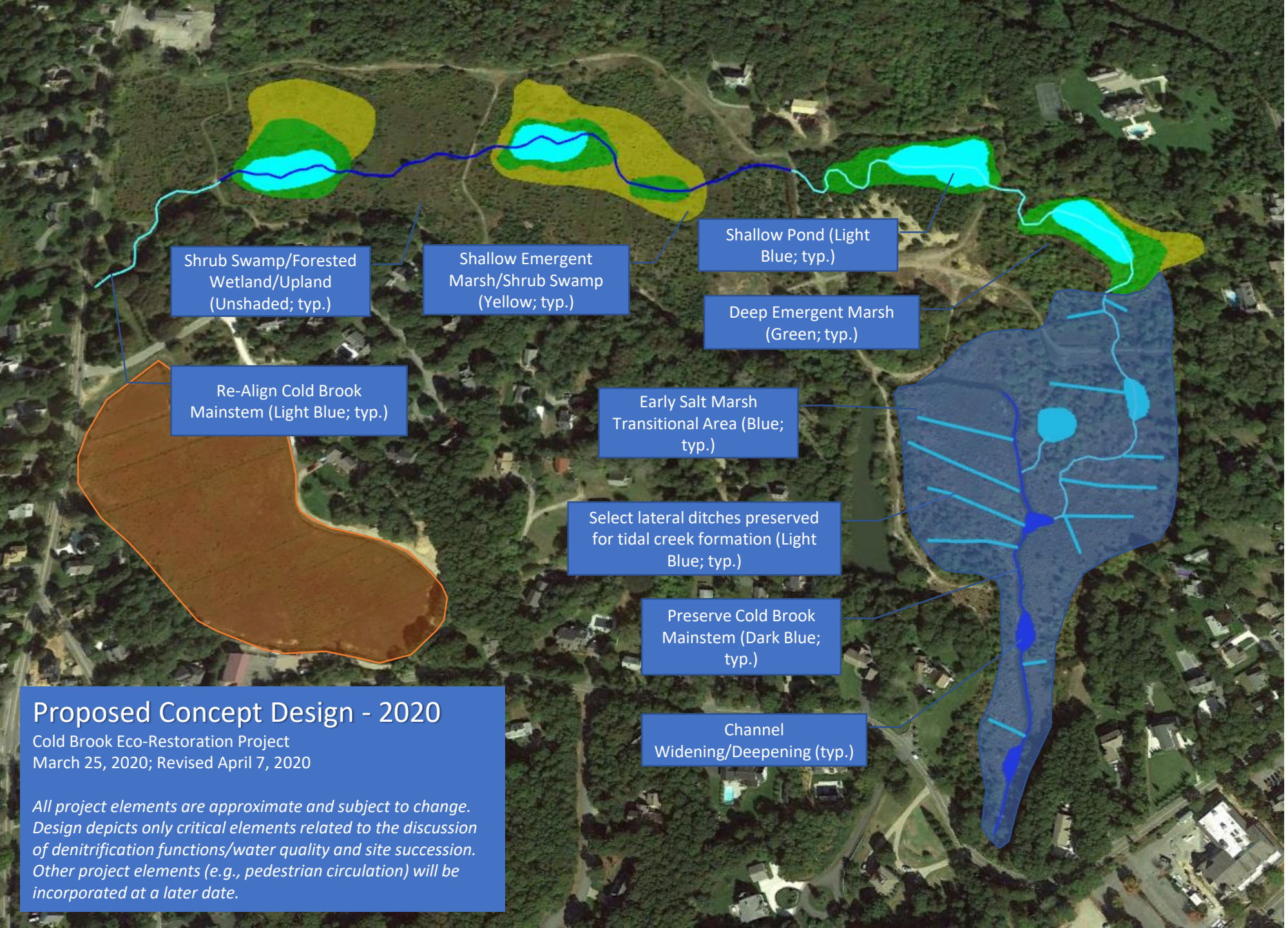
- Town of Harwich
- Harwich Conservation Trust (HCT)
- CDM Smith with TMDL Solutions and UMass Dartmouth School of Marine Science and Technology (SMAST)
- Massachusetts Department of Fish and Game, Division of Ecological Restoration (DER) with Inter-Fluve.
- Others

Town's Goal:

Increase nitrogen removal in the Saquatucket Harbor Watershed system via denitrification in a series of open water ponds and nitrogen uptake in a naturally transitioning marshland system.

HCT Goals:

- Nitrogen attenuation
- Ecosystem restoration/recovery
- Recreational opportunities



Proposed Concept Design - 2020

Cold Brook Eco-Restoration Project
March 25, 2020; Revised April 7, 2020

All project elements are approximate and subject to change. Design depicts only critical elements related to the discussion of denitrification functions/water quality and site succession. Other project elements (e.g., pedestrian circulation) will be incorporated at a later date.

Community Type Acreage

Salt Marsh: **9.5± ac**

Shallow Pond: **2.2± ac**

Deep Emergent Marsh: **3.2± ac**

Shallow Emergent Marsh/Shrub Swamp: **3.5± ac**

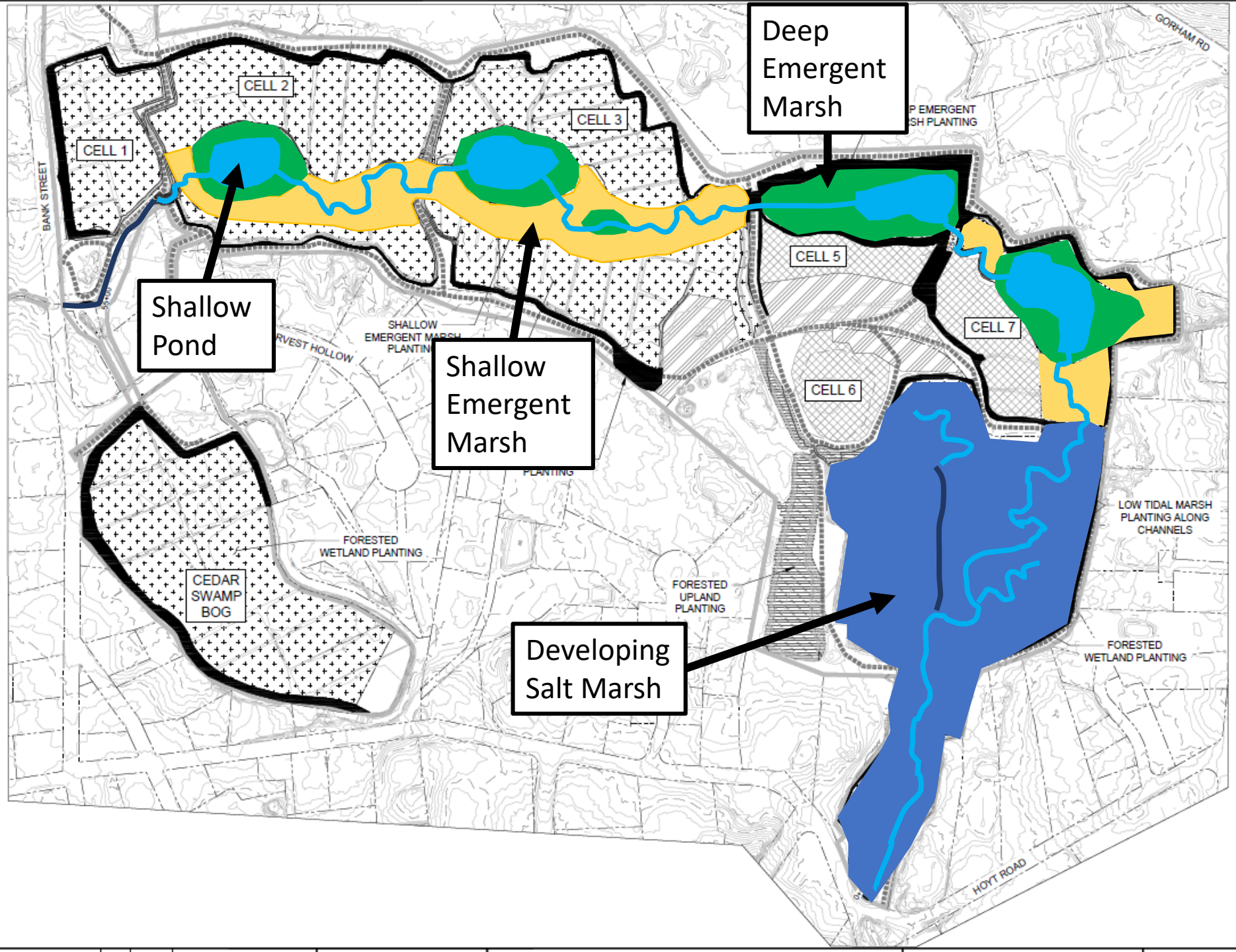
Shrub Swamp/Forested Wetland/Upland: **15± ac**

Realigned Stream: **2,700± lf**

DEPARTMENT OF FISH AND GAME
Division of Ecological Restoration

SMAST
University of Massachusetts Dartmouth
The School for Marine Science and Technology

TMDL Solutions



Community Type Acreage

Salt Marsh: ~9.5 ac (developing over time)

Shallow Pond: 2.2 ac

Deep Emergent Marsh: 3.2 ac

Shallow Emergent Marsh/Shrub Swamp: 3.7 ac

Shrub Swamp/Forested Wetland/Upland: 19.7 ac

Realigned Stream: 4,700 lf

2022

Preliminary
Not for Construction

Proposed Community Types

	2020 Concepts	2022 Preliminary Designs
Salt Marsh (acres)	9.5	9.5
Shallow Pond (acres)	2.2	2.2
Deep Emergent Marsh (acres)	3.2	3.2
Shallow Emergent Marsh (acres)	3.5	3.7
Shrub Swamp/Forested Wetland/Upland (acres)	15	19.7
Realigned Stream (linear feet)	2,700	4,700

Proposed Schedule (updated Aug. 2023)

- DER
- Complete final design and permitting – Spring 2023
- Bid project for construction – Summer 2023
- Construction completion – Summer 2024
- Town of Harwich
- Updated baseline monitoring – 2020 thru 2022
- Post construction monitoring – 2024 thru 2026
- Compliance monitoring report – Fall 2026