

Development of a Long-Term Monitoring Plan for the Hampton-Seabrook Estuary

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SEABROOK-HAMPTONS
ESTUARY ALLIANCE

WWW.SHEA4NH.ORG



Project Overview

BUILDING CAPACITY

Coastal Conservation
Coordinator

Hampton-Seabrook
Estuary Collaborative
Coordinator

Estuary Management
Plan Small Grants
Program

**Hampton-Seabrook
Estuary**

SCIENCE

Baseline Assessment

Long-Term Protocols +
Monitoring

Technical Assistance
Committee

Funding: \$1.4 M | **Time Frame:** April 2025 – March 2028

Measuring Elevation Increase of Salt Marshes of the HSE using a Surface Elevation Table



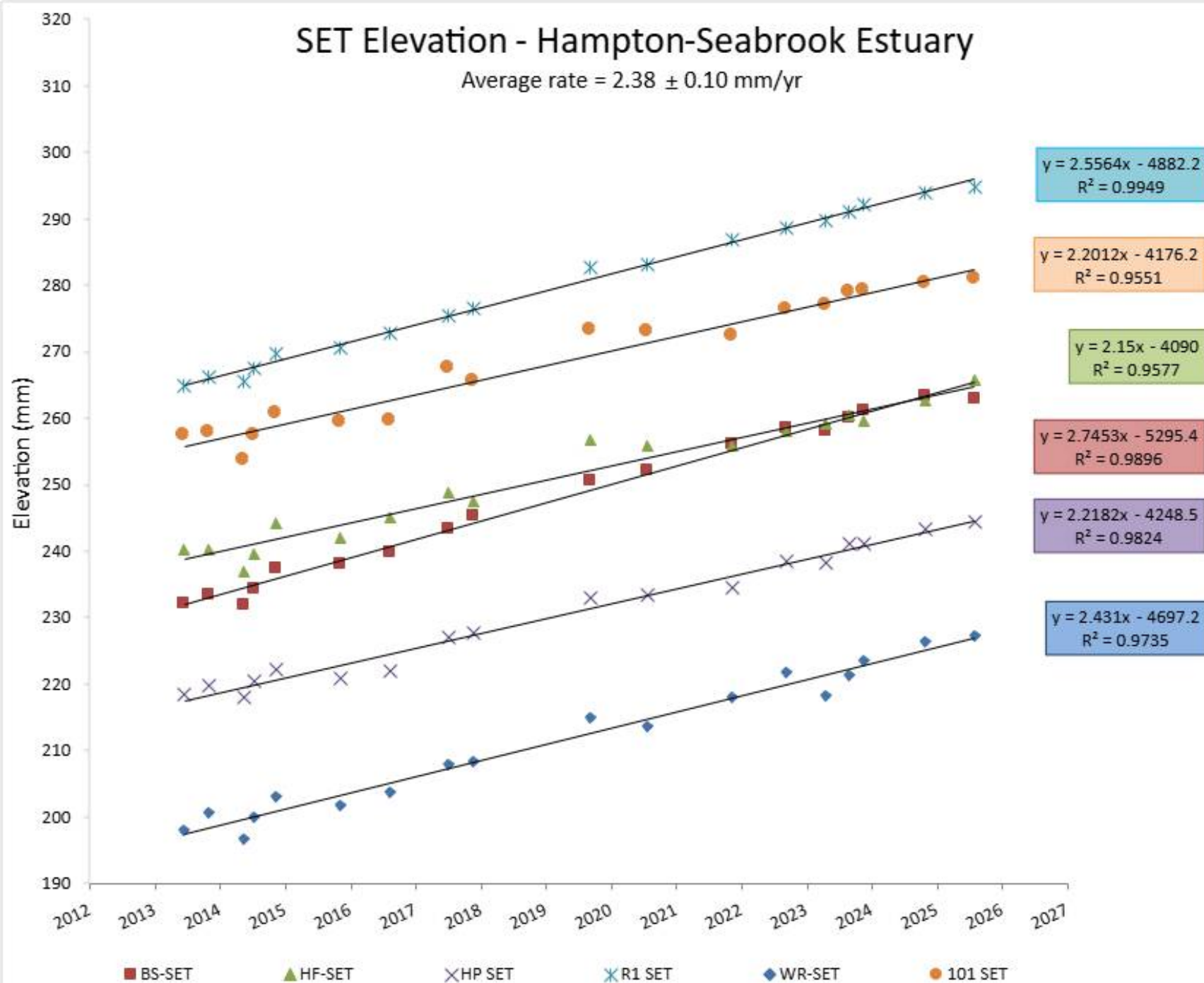
 SET Stations in HSE



Andy Payne measuring SET at Hampton Harbor

SET Elevation - Hampton-Seabrook Estuary

Average rate = 2.38 ± 0.10 mm/yr



Site	Post Elevation
BS	1.339
R1	1.405
HF	1.454
HP	1.479
WR	1.479
101 SET	1.488

Salt Marsh Monitoring Constraints

Needs to be accessible:

- Ownership & physical access of proposed sites

Needs to connect to monitoring goals and questions:

- How do we get good coverage spatially?
- What might this transect tell us over time?
- Potential to monitor inland migration?



Objectives

Establish Permanent Transects for Vegetation Monitoring

- Characterize the overall system with respect to plant communities
- Document current baseline
- Identify future changes in plant communities as climate change impacts affect the HSE
- Transects should be long-term, sustainable & minimize impacts to the marsh

Expand Participatory Science within the Hampton-Seabrook Estuary

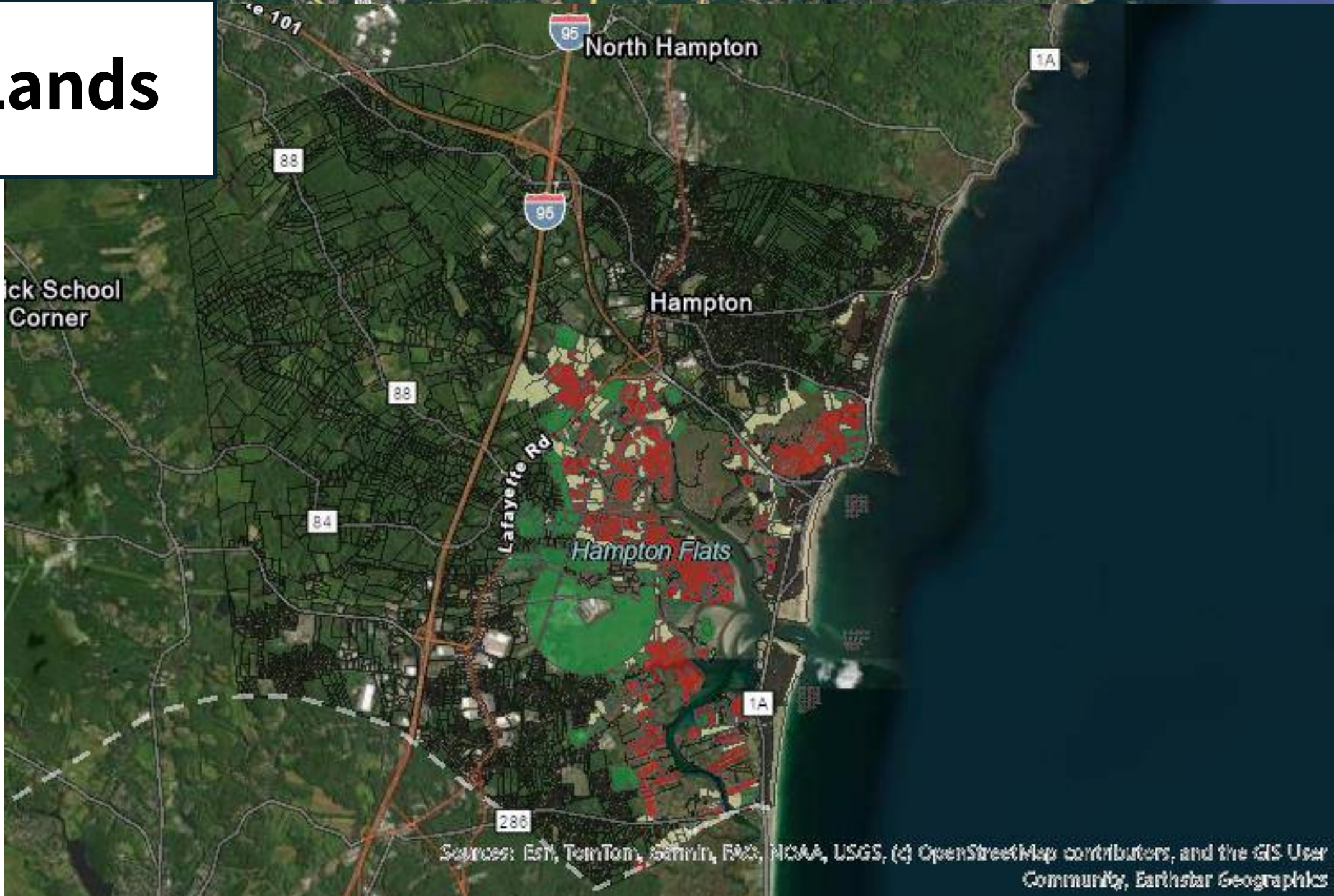
- Broaden the number of opportunities for participatory science
- Increase the number of people engaging in science in the estuary
- Overall goal is to increase resident's connection to the HSE

Public Lands

1. Parcels are updated through 2022 and sourced from GRANIT
2. Parcel ownership & accuracy map from RPC

Where these two maps agree is our “go zone”

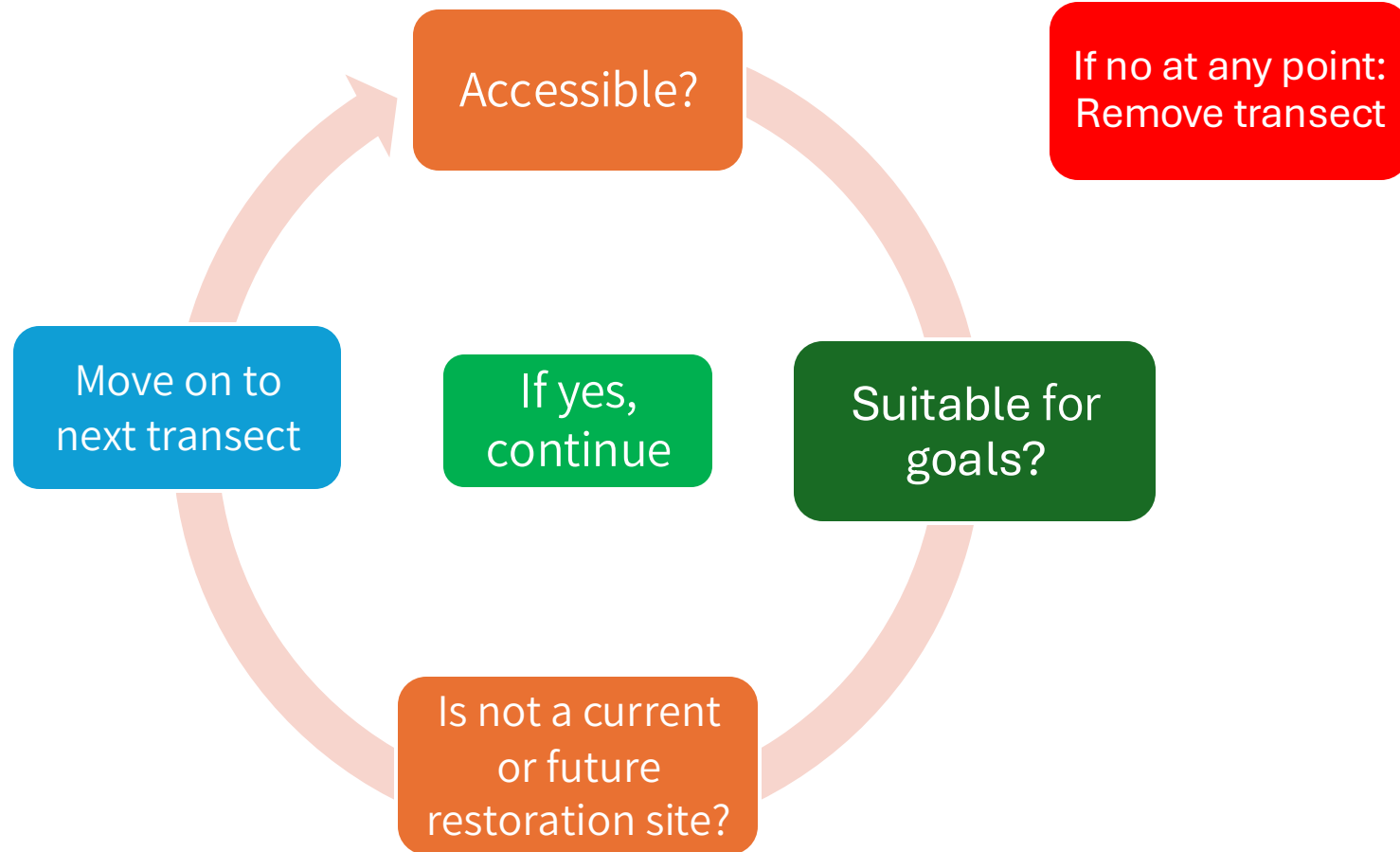
Cr. Grant McKown:
Google Earth parcels

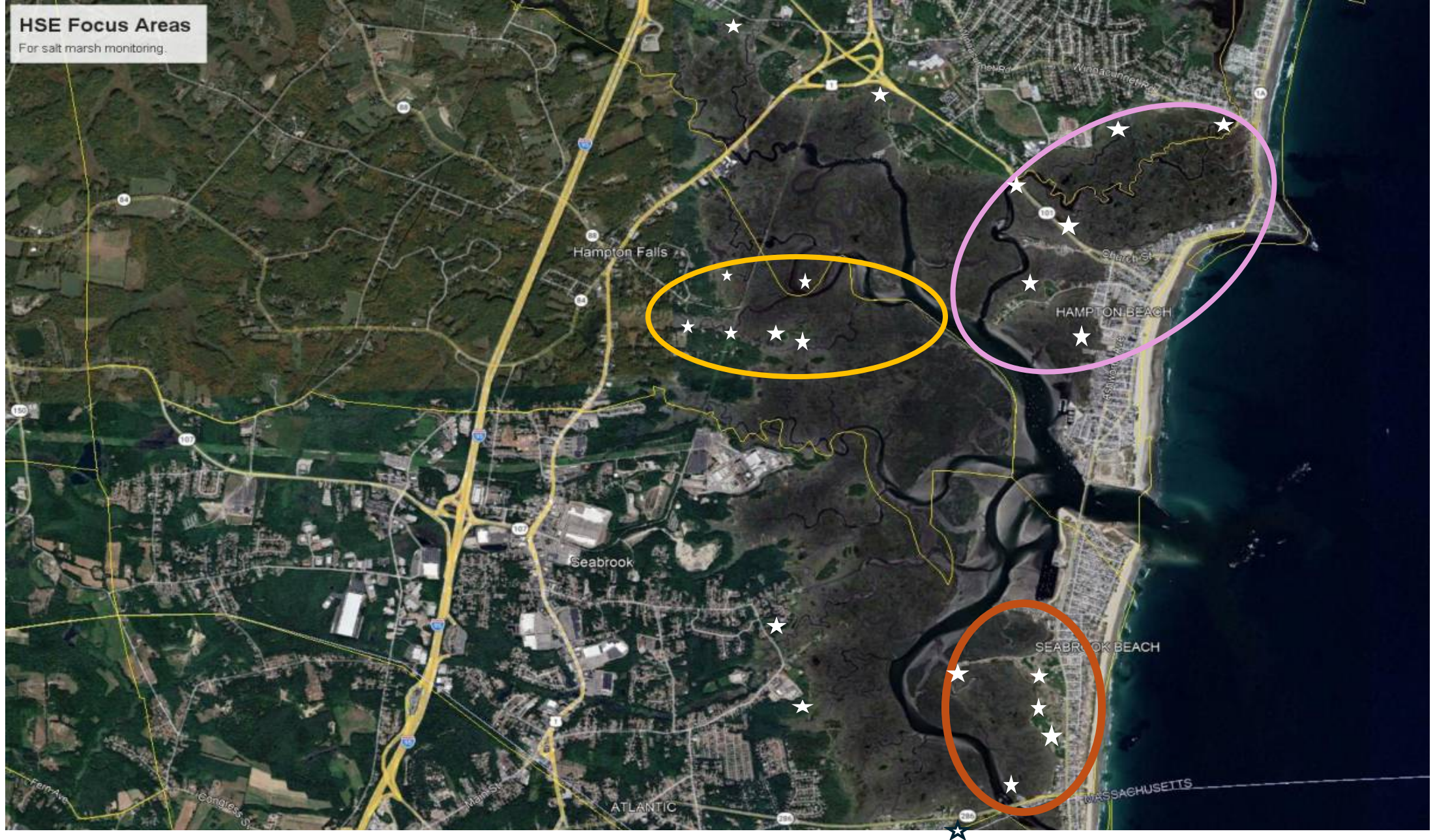


50 transects



Goal: 12
transects





Whole estuary with focus areas circled

5 Models to Consider:

1. Mixed Bag Model
 - Spatially broad
2. Ocean- River Model
 - Captures riverine gradients
3. Per Town Model
 - Four transects per town
4. SET Model
 - Transects within 1km of existing SET-MH locations
5. Focal Area Model
 - Characterize select marsh areas that are under 100 acres

Why 12 Transects?

- Obligated to do 4 transects but:
- 4 transects annually is not a significant source of data
- Having clusters of 2-6 transects allows comparisons to be drawn between groups
- Can be monitored with minimal financial inputs

Next Steps

- Pick which model is the best fit for our goals considering the constraints with advisory team
- Establish permanent transects and monitor (Field Season '26)
 - SET monitoring Fall '26
 - Vegetation monitoring through Summer & Fall '26
- Continue the development of engagement opportunities for schools and community members
- Continue developing new projects and expansions of existing participatory science programs



A photograph of a coastal landscape at sunset. The foreground is filled with tall, green grass. In the background, a row of houses is visible under a warm, orange and yellow sky. The ocean is visible on the right side of the image.

Thank you!

Emails always welcome:
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