Nature Based Strategies for Climate Ready Southern Maine

York River Stewardship Committee Meeting
December 16, 2025

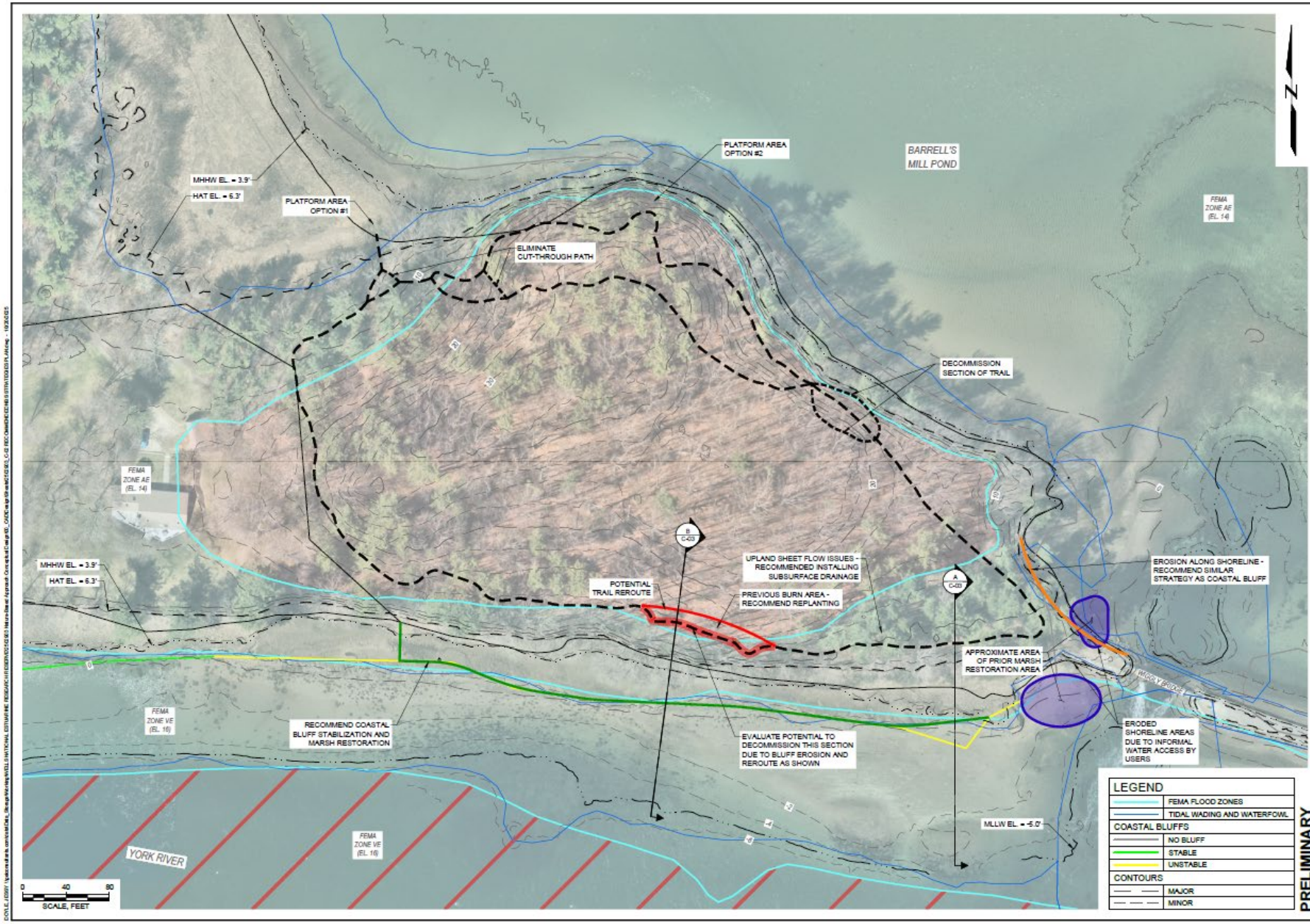
Jacob Aman
Wells National Estuarine Research Reserve

GEI Consultants

Feasibility Report and Conceptual Design Development

Nature-Based Strategy Conceptual Design Steedman Woods

York, Maine



PRELIMINARY

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WELLS NATIONAL ESTUARINE RESEARCH RESERVE

NATURE-BASED APPROACH CONCEPTUAL DESIGN

YORK, MAINE

DRAFT

PJE. No.:	
Approved:	
Checked:	DJB
Drawn:	JLD
Designed:	LCV
GEI Project	2502903

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

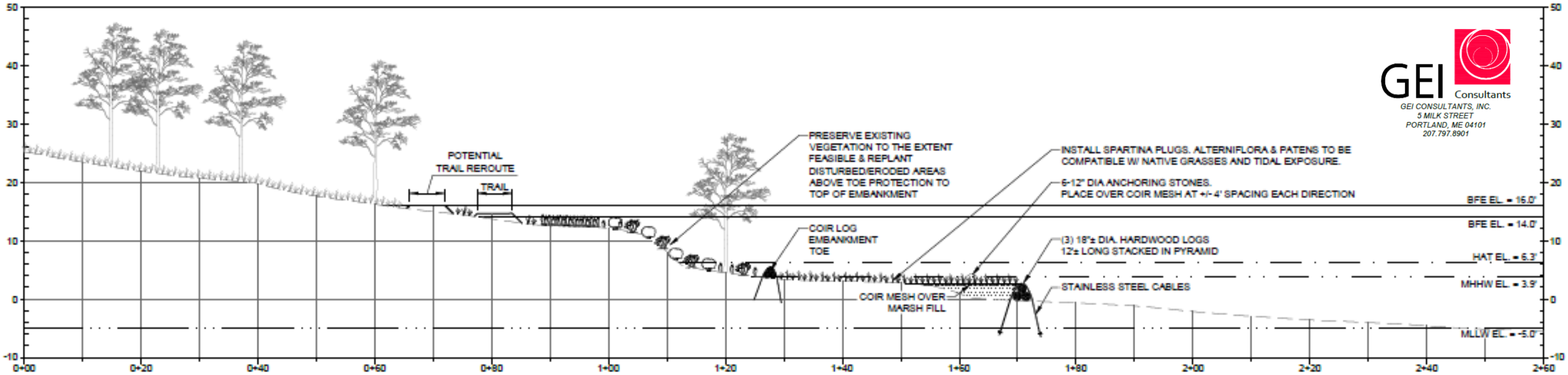
NO.	DATE	ISSUE/REVISION	APP
0	7/14/2025	SITE CONDITIONS REPORT	LCV

SHEET NAME

RECOMMENDED NBS STRATEGIES PLAN

SHEET NO.

C-02



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Decision Support Tool for Nature-Based Strategies in Southern Maine

About | Layers | FAQ

- Site Suitability Assessment for Southern Maine
- Socio-Political Site Feasibility Assessment for Southern Maine
- Beach Priority Assessment for Southern Maine
- Maine Parcels Organized Towns
- Maine Sea Level Rise Storm Surge Scenarios 2018 - Highest Astronomical Tide Plus 1.6 Feet
- Maine Sea Level Rise Storm Surge Scenarios 2018 - Highest Astronomical Tide Plus 3.9 Feet

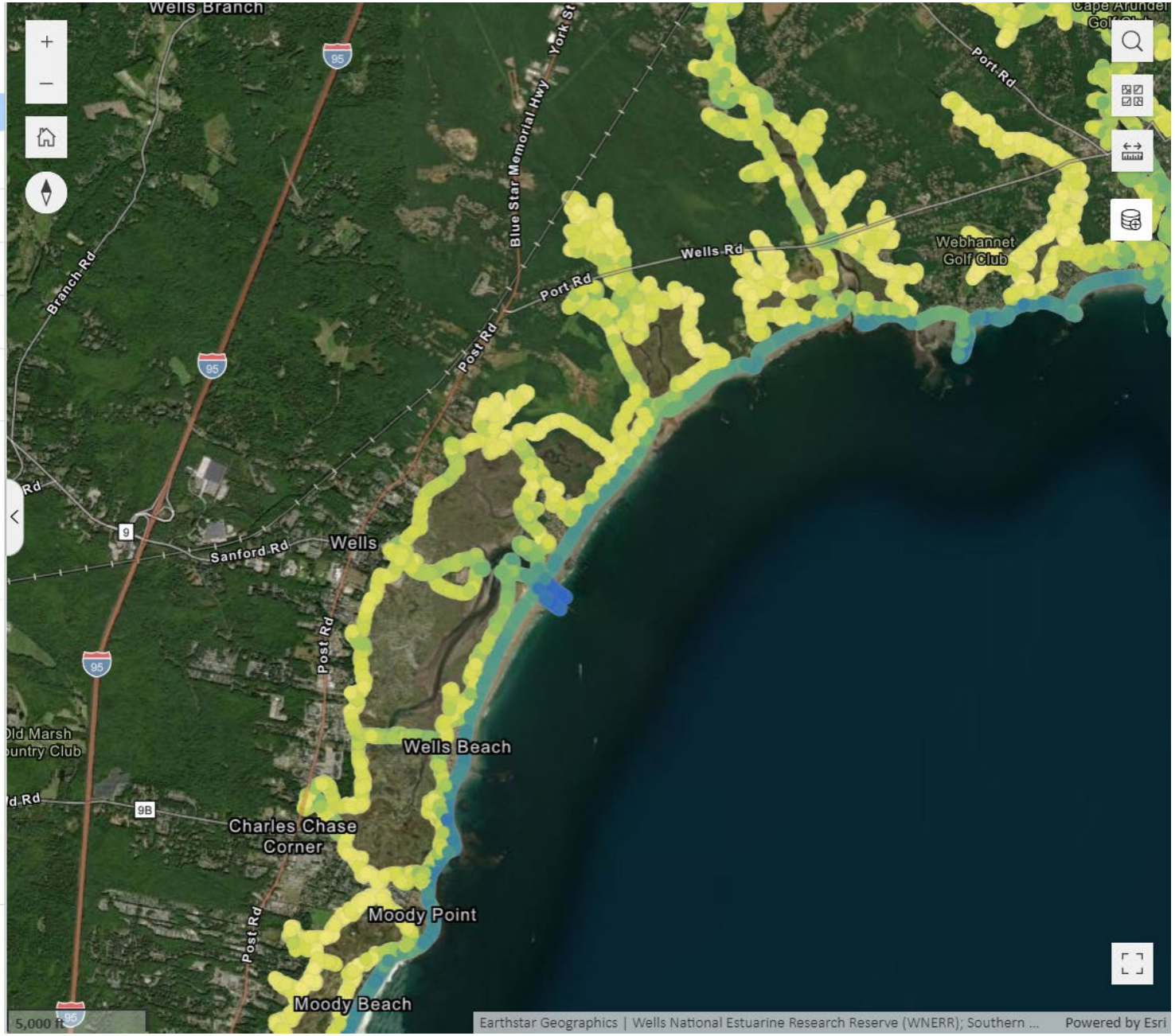
Legend

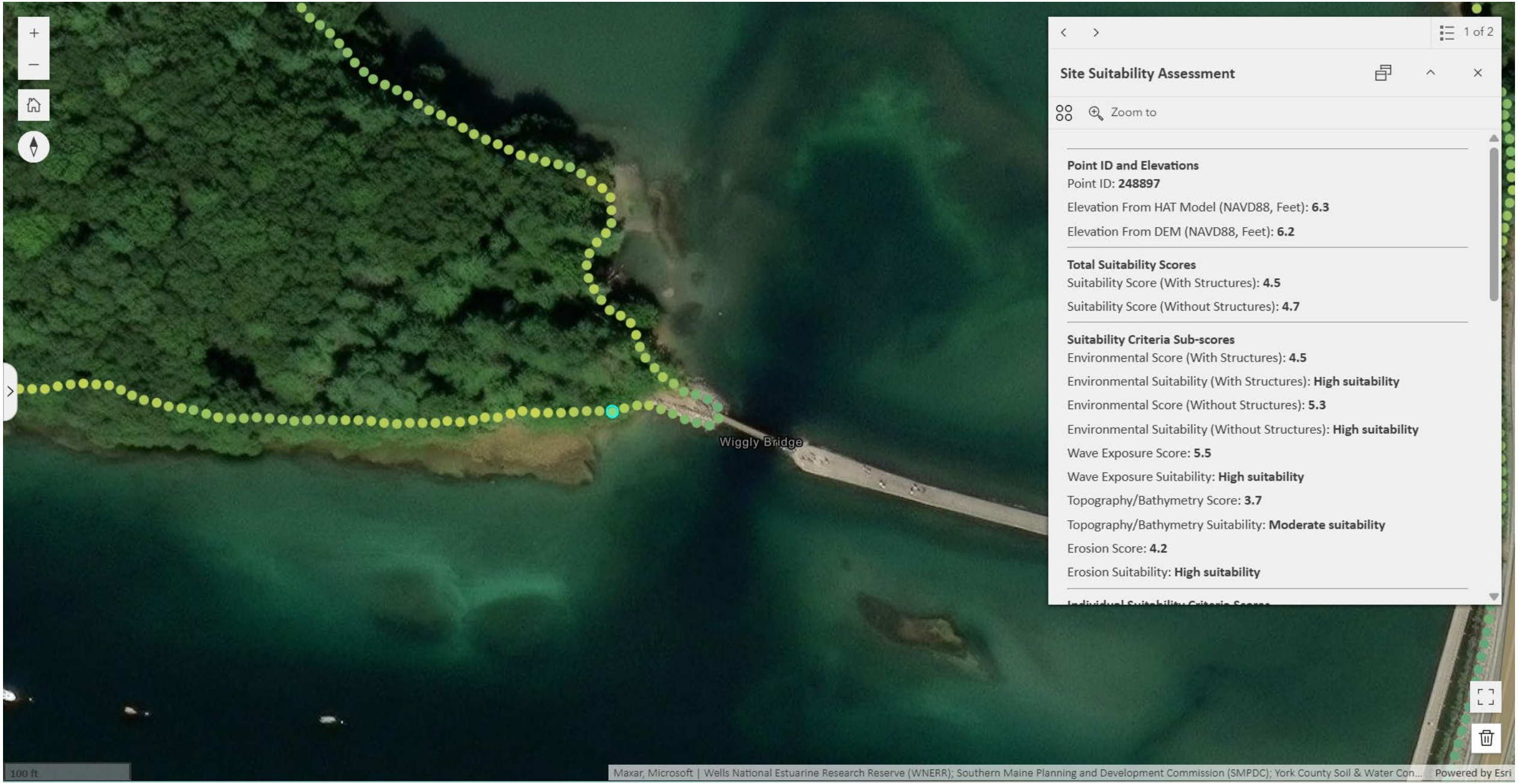
Site Suitability Assessment for Southern Maine

Site Suitability Assessment Normalized Score (With Structures)

- > 5.85
- 3.86
- < 1.87

Socio-Political Site Feasibility Assessment for Southern Maine





1 of 2

Site Suitability Assessment

Zoom to

Point ID and Elevations

Point ID: **248897**

Elevation From HAT Model (NAVD88, Feet): **6.3**

Elevation From DEM (NAVD88, Feet): **6.2**

Total Suitability Scores

Suitability Score (With Structures): **4.5**

Suitability Score (Without Structures): **4.7**

Suitability Criteria Sub-scores

Environmental Score (With Structures): **4.5**

Environmental Suitability (With Structures): **High suitability**

Environmental Score (Without Structures): **5.3**

Environmental Suitability (Without Structures): **High suitability**

Wave Exposure Score: **5.5**

Wave Exposure Suitability: **High suitability**

Topography/Bathymetry Score: **3.7**

Topography/Bathymetry Suitability: **Moderate suitability**

Erosion Score: **4.2**

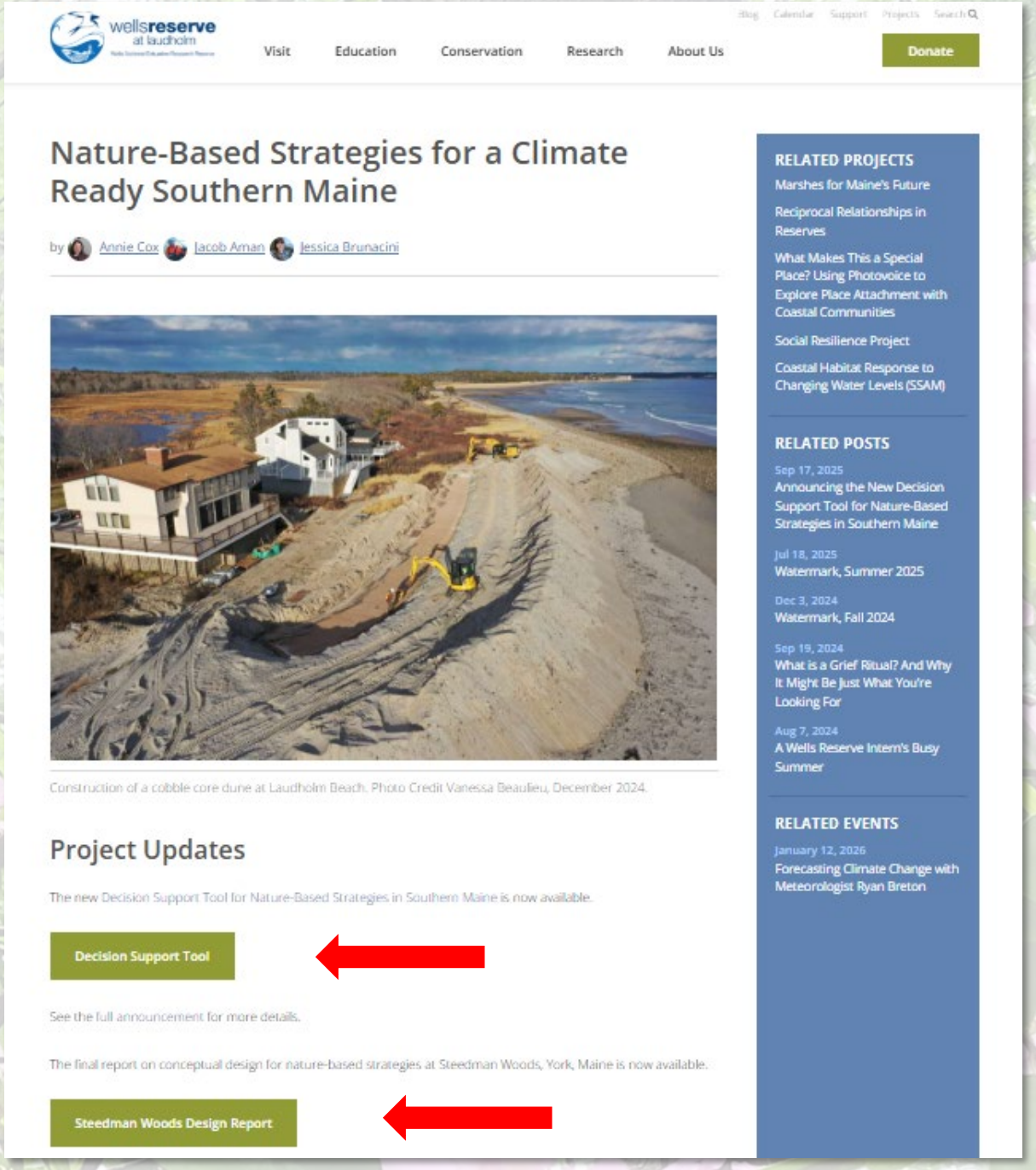
Erosion Suitability: **High suitability**

Site Suitability Assessment
A composite score (1 to 6) representing the relative biophysical suitability of each shoreline point for nature-based strategies.

Socio-Political Feasibility Assessment
A non-scoring contextual layer that includes regulatory, land use, ownership, and vulnerability attributes relevant to implementation feasibility.

Beach Priority Assessment
A composite score (1 to 6) identifies high priority beach segments for restoration or enhancement based on physical characteristics such as erosion rate, width, and dune structure.

Assessment Name	Scoring Type	Purpose	Criteria Included
Site Suitability Assessment	Scored (1–6)	Identifies shoreline segments with relatively higher biophysical suitability for nature-based strategies based on physical site conditions	Aspect; Annualized Fetch; Southeast Fetch; Northeast Fetch; FEMA Zone; Landward Relief Height; Saltmarsh Migration (MNAP); Tidal Crossings; Boat Wakes (Proximity to Navigation Channels); Landward Habitat; Seaward Habitat; Seaward Habitat (Secondary); Landward Slope; Intertidal Slope; Bathymetric Slope; Coastal Structures; Soils Erodibility; Landcover (C-CAP)
Beach Priority Assessment	Scored (1–6)	Identifies high priority beach segments for restoration or enhancement based on physical characteristics	Beach Change; Dry Beach Width; Dry Beach Change; Total Beach Width; Proximity to Structure; Dune Height; Dune Change
Socio-Political Feasibility Assessment	Not scored	Provides contextual information related to regulatory constraints, land use, vulnerability, and development potential	Proximity to Eelgrass Beds; Proximity to Shellfish Habitat; Proximity to Tidal Waterfowl and Wading Bird Habitat; Proximity to Aquaculture Leases; Overlap with Conserved Lands; Parcel Buildout Potential; Proximity to Impervious Cover; Building Vulnerability; Road Vulnerability; Habitat Vulnerability; DEP Priority Watershed Designation; Coastal Bluff Presence



https://wellsreserve.org/project/nature-based-solutions-for-a-climate-ready-southern-maine

Thank You!

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