

Nature Based Strategies for Climate Ready Southern Maine



York River Stewardship Committee Meeting
December 16, 2025

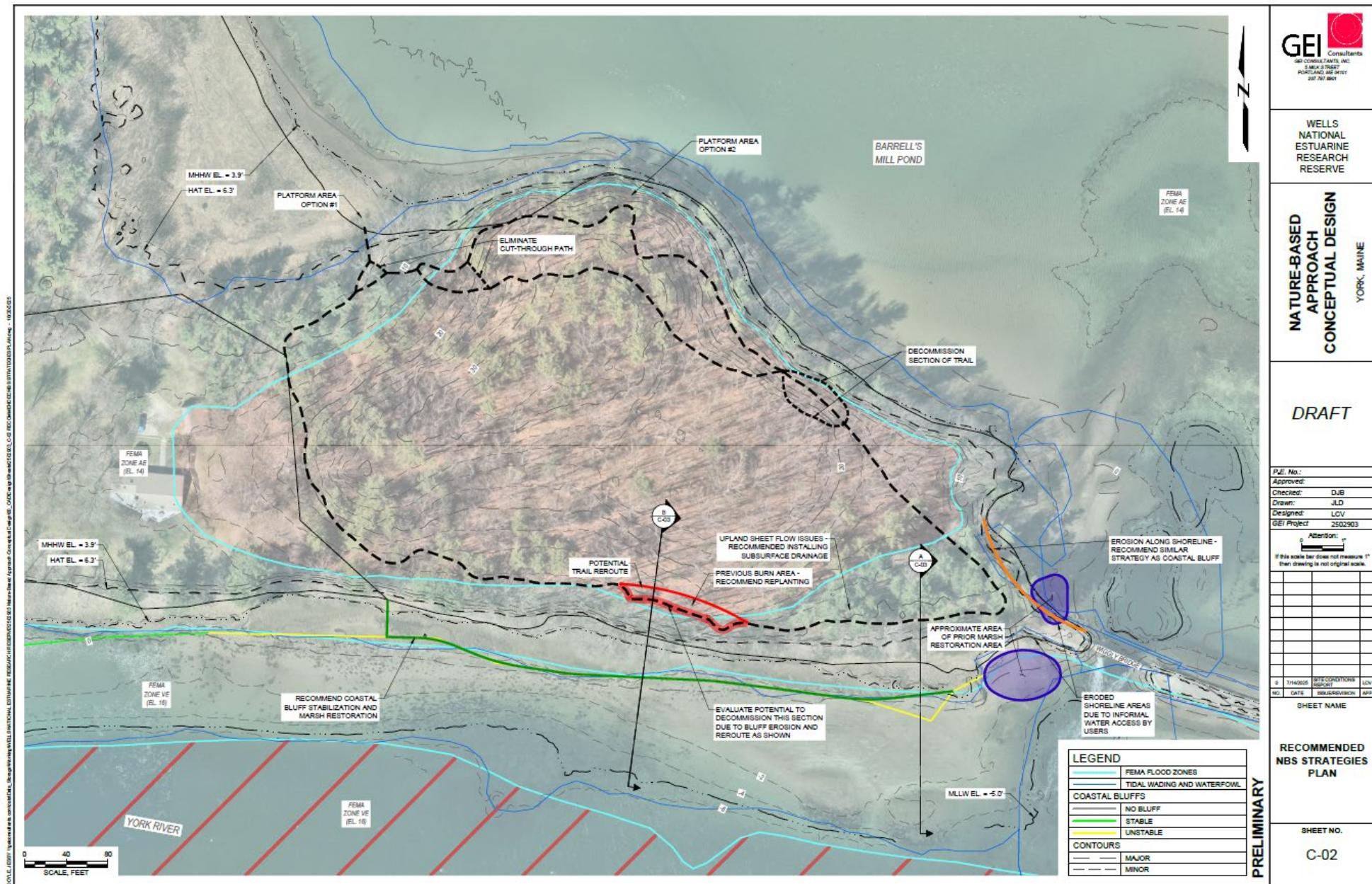
Jacob Aman
Wells National Estuarine Research Reserve

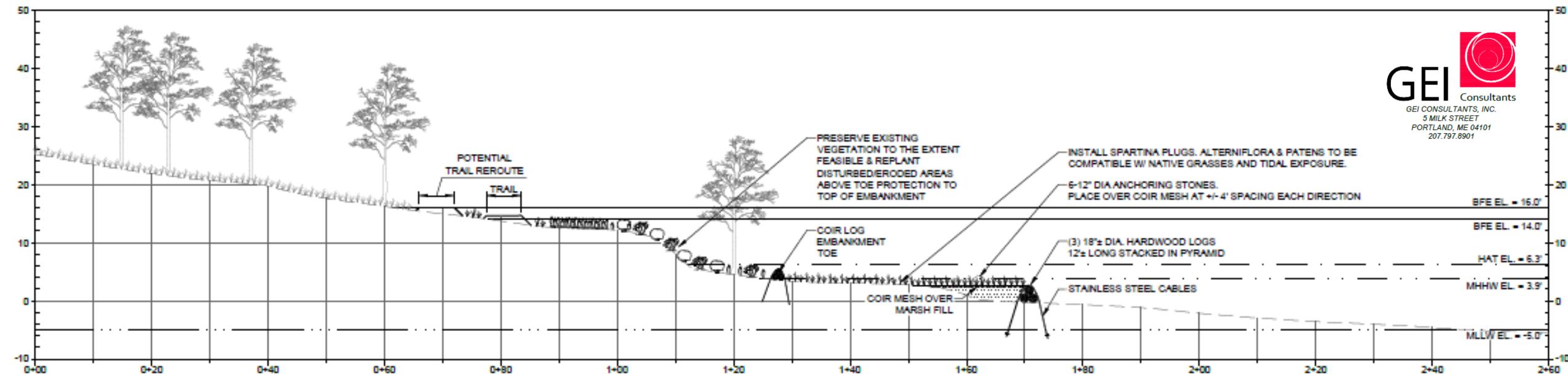


Feasibility Report and Conceptual Design Development
Nature-Based Strategy Conceptual Design
Steedman Woods

York, Maine







Decision Support Tool for Nature-Based Strategies in Southern Maine

About

Layers

FAQ

Site Suitability Assessment for Southern Maine

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Socio-Political Site Feasibility Assessment for Southern Maine

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Beach Priority Assessment for Southern Maine

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Maine Parcels Organized Towns

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Maine Sea Level Rise Storm Surge Scenarios 2018 - Highest Astronomical Tide
Plus 1.6 Feet

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Maine Sea Level Rise Storm Surge Scenarios 2018 - Highest Astronomical Tide
Plus 3.9 Feet

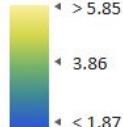
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Legend

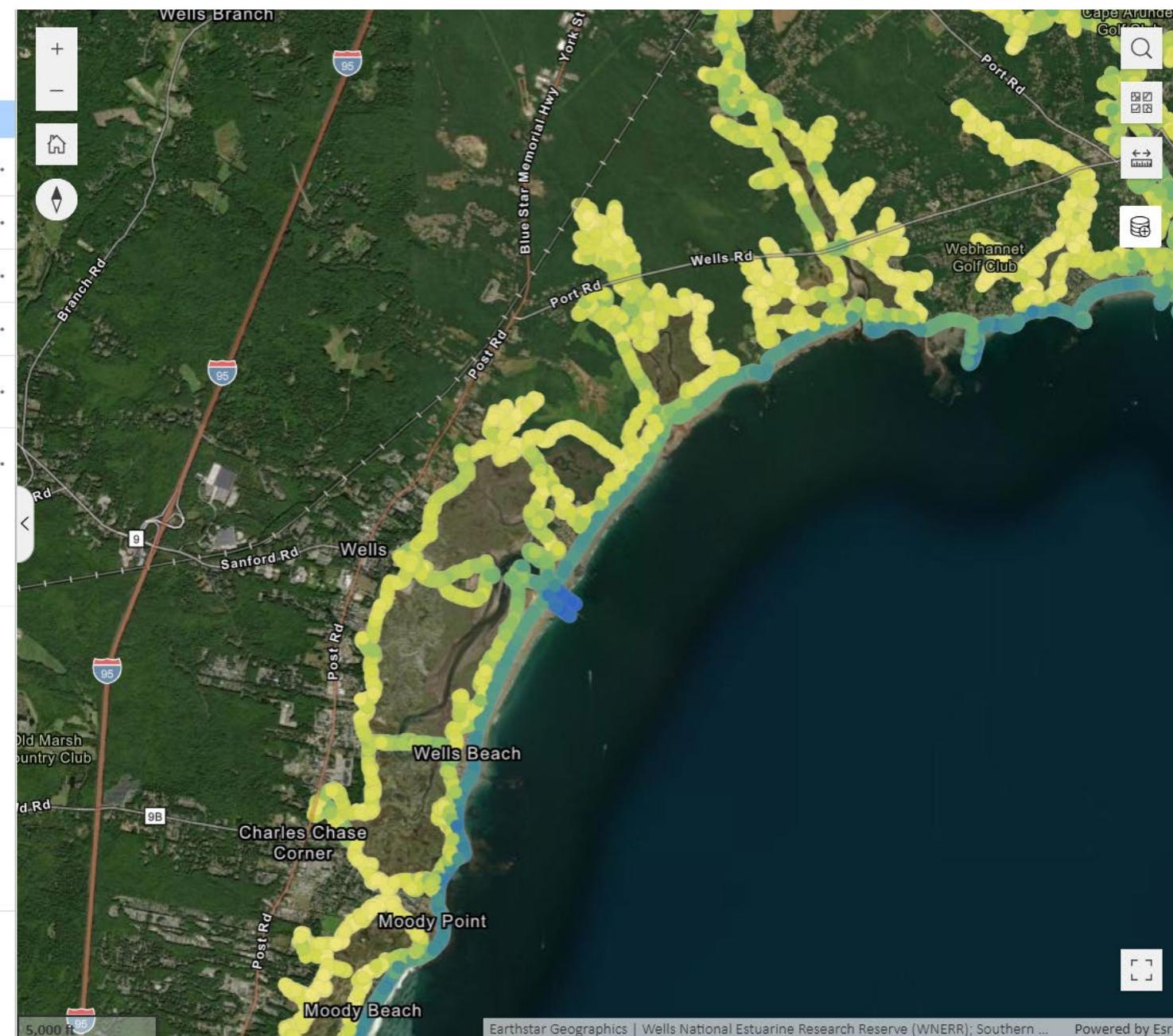
Site Suitability Assessment for Southern Maine



Site Suitability Assessment Normalized Score (With Structures)



Socio-Political Site Feasibility Assessment for Southern Maine





Aerial map showing a coastal area with a wiggly bridge and a yellow line of dots. The yellow line of dots is concentrated along the shoreline and the bridge structure. The map includes a scale bar (00 ft) and various navigation icons (zoom, home, orientation).

1 of 2

Site Suitability Assessment

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**

Individual Suitability Criteria Scores

Maxar, Microsoft | Wells National Estuarine Research Reserve (WNERR); Southern Maine Planning and Development Commission (SMPDC); York County Soil & Water Con... Powered by Esri

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

Nature-Based Strategies for a Climate Ready Southern Maine

by  [Annie Cox](#)  [Jacob Arman](#)  [Jessica Brunacini](#)



Construction of a cobble core dune at Laudholm Beach. Photo Credit Vanessa Beaulieu, December 2024.

Project Updates

The new Decision Support Tool for Nature-Based Strategies in Southern Maine is now available.

[Decision Support Tool](#)



See the full announcement for more details.
[View the announcement](#)

The final report on conceptual design for nature-based strategies at Steedman Woods, York, Maine is now available.

[Steedman Woods Design Report](#)



RELATED PROJECTS

- [Marshes for Maine's Future](#)
- [Reciprocal Relationships in Reserves](#)
- [What Makes This a Special Place? Using Photovoice to Explore Place Attachment with Coastal Communities](#)
- [Social Resilience Project](#)
- [Coastal Habitat Response to Changing Water Levels \(SSAM\)](#)

RELATED POSTS

- Sep 17, 2025 [Announcing the New Decision Support Tool for Nature-Based Strategies in Southern Maine](#)
- Jul 18, 2025 [Watermark, Summer 2025](#)
- Dec 3, 2024 [Watermark, Fall 2024](#)
- Sep 19, 2024 [What is a Grief Ritual? And Why It Might Be Just What You're Looking For](#)
- Aug 7, 2024 [A Wells Reserve Intern's Busy Summer](#)

RELATED EVENTS

- January 12, 2026 [Forecasting Climate Change with Meteorologist Ryan Breton](#)

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

Thank You!

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