

NROC Coastal Hazards Resilience Committee (CHRC)

NROC Meeting - May 15, 2025

Dani Boudreau, NOAA NOS
Coastal Hazards Resilience Committee Co-Chair

NROC Coastal Hazards Resilience Committee

Goal

- Build hazards resilience to impacts of coastal erosion, flooding, storms, and climate change through region-wide dissemination of data, tools, and case studies, as well as fostering collaborative actions

NROC Coastal Hazards Resilience Committee

Co-Chairs

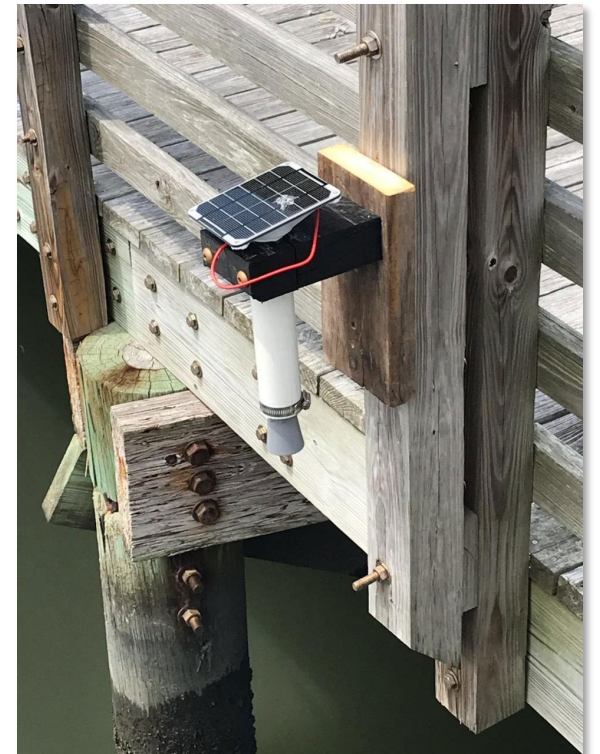
- Dani Boudreau, NOAA
- Gavin Jackson, CT DEEP
- Julia Knisel, MA CZM

Staff

- Joan LeBlanc, NROC Coastal Hazards Resilience Program Director

Coastal Hazards Resilience Committee Projects

- *Establishing a Water Level Sensor Monitoring Network*
- *Advancing Living Shorelines in New England*
- *Hosting a Coastal Resilience Exchange*



Developing a Regional Water Level Sensor Monitoring Network

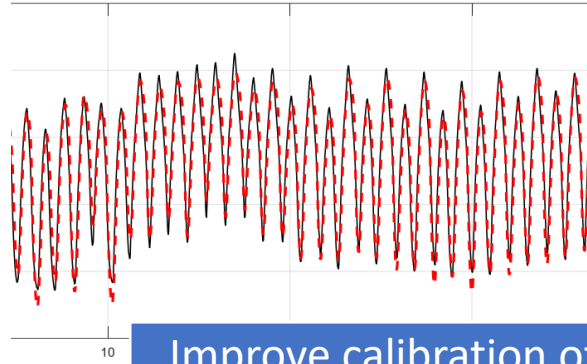
- Provide real-time data to monitor storm surge and SLR
- Inform local planning, adaptation, and decision-making
- Create reporting tools to analyze and share data



Water Level Sensor Monitoring Network -> Real-Time Data



Losses due to frequent flooding



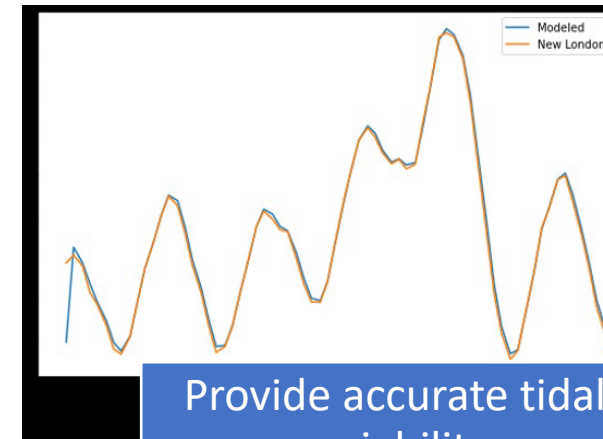
Improve calibration of flood models



Inform flood adaptation designs



Inform sea level impact on marsh migration



Provide accurate tidal variability

water level sensor sites

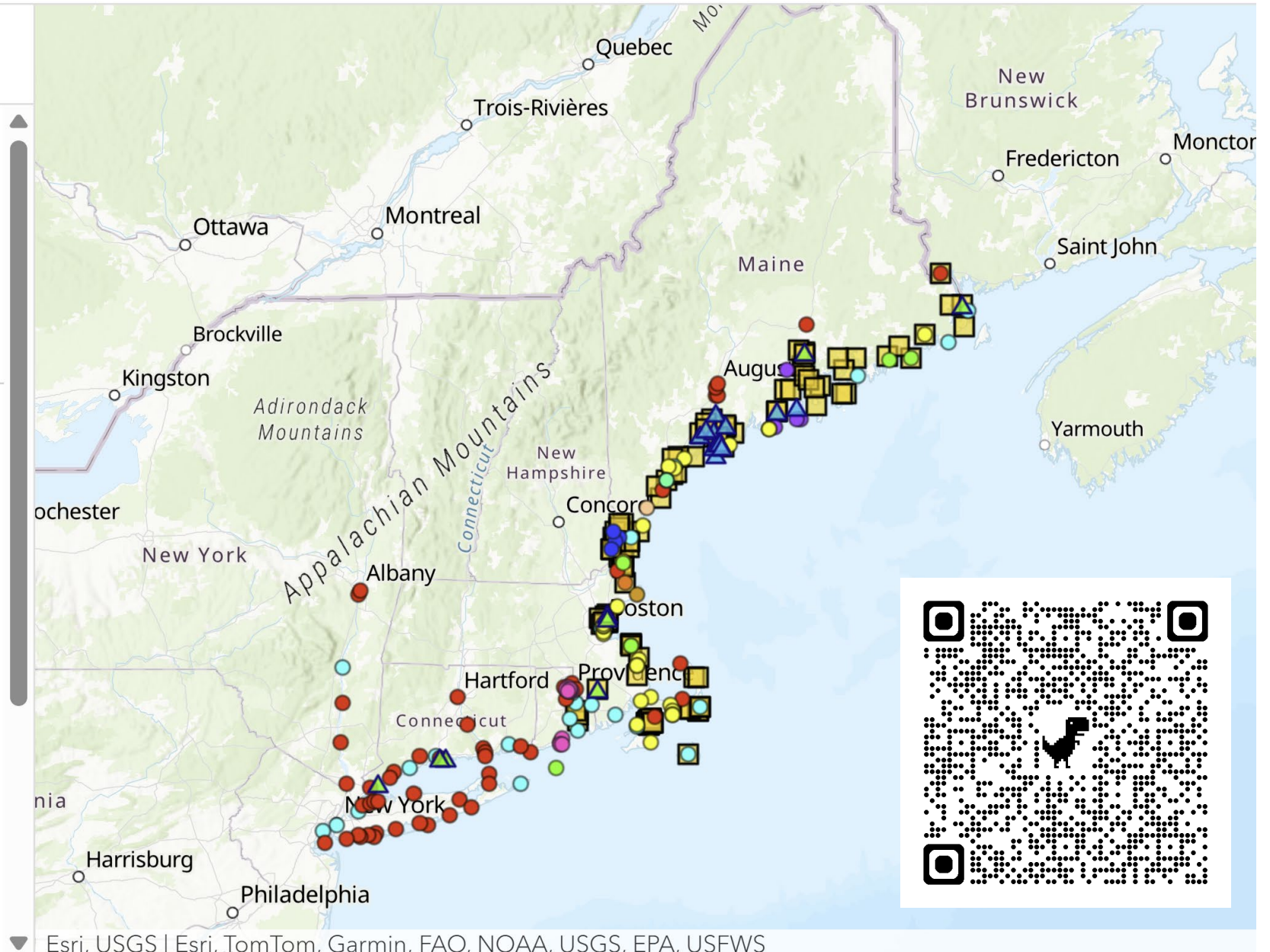
Legend

planned

- △ EPSCoR 3CRS
- △ NROC BIL
- △ FloodNet

active

- USGS
- CO-OPS
- Hohonu
- local
- NERACOOS
- Wells NERR
- New Hampshire Coastal Resiliency Partnership
- NROC BIL
- EPSCoR 3CRS



Installing Water Level Sensors

- 25 completed so far
- 8 more to be installed within the next two months



Data Delivery

Station HPMN3: Hampton Harbor

Hampton Harbor Tide Gauge

Lat: 42.91 Lon: -70.81

[NERACOOS](#)

Last updated at: May 14, 11:00 PM

Sea surface height above geopotential datum (NAVD 88): 1.2 ft

Unit system: Metric English

Station: HPMN3: Hampton Harbor

Datum:

☐ Mean High High Water

☐ Mean High Water

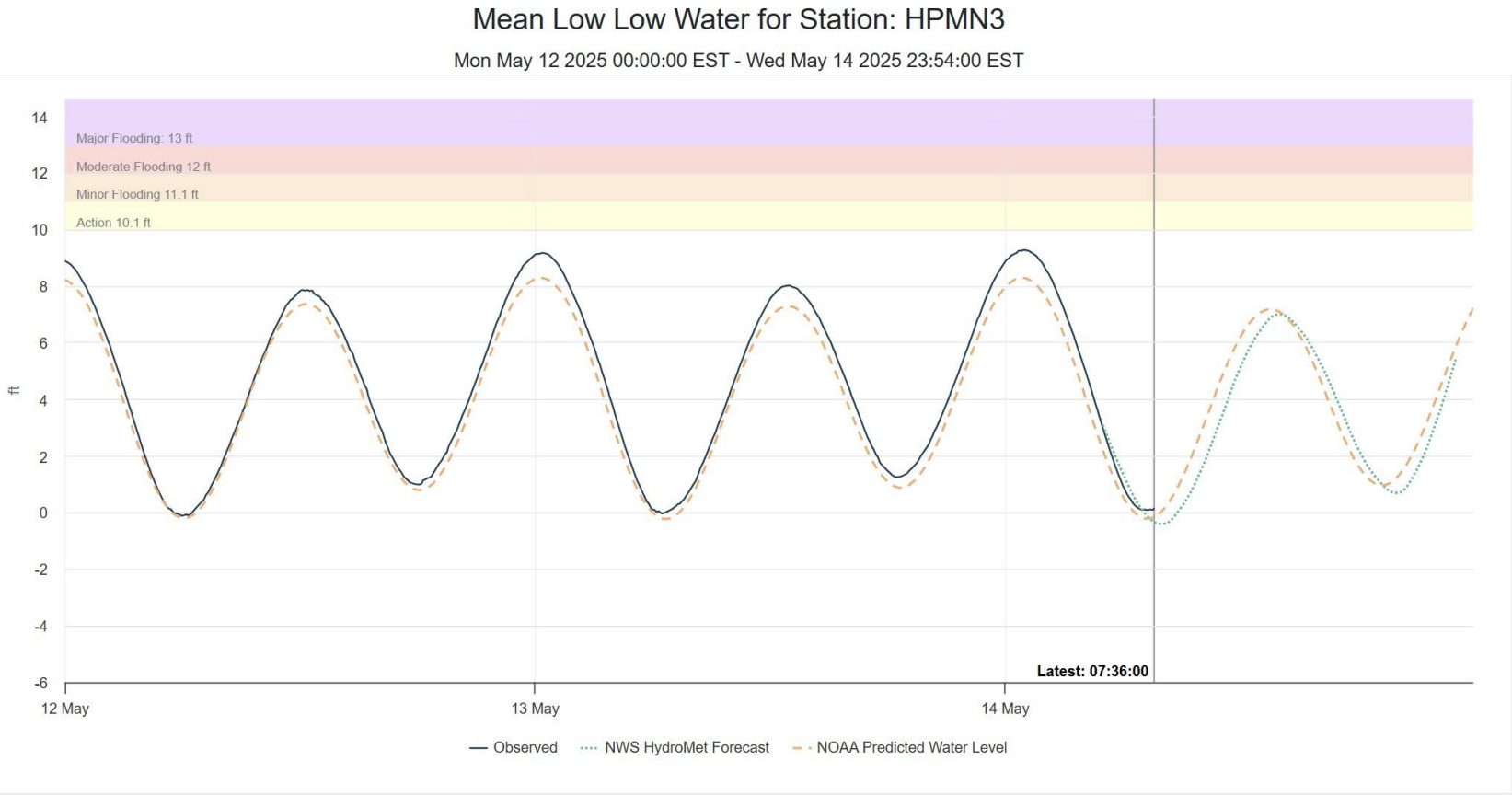
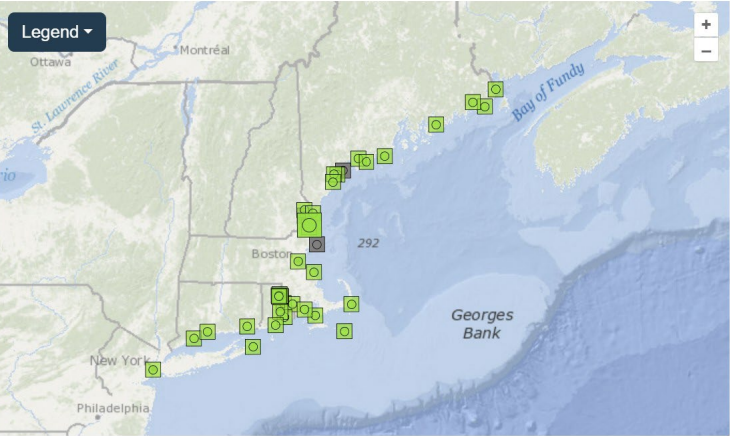
☐ Mean Tide Level

☐ Mean Sea Level

☐ Mean Low Water

☒ Mean Low Low Water

☐ NAVD88



<https://mariners.neracoos.org/water-level>



Next Steps for Water Level Sensor Network in 2025

Ongoing Activities

- Continue working with regional and local partners to identify potential sites and install sensors
- Refine water level data viewer
- Provide support for network operations



Workshop on August 7, 2025 - NH DES, Portsmouth NH

- Share lessons learned
- Review best practices for sensor deployment and surveys
- Assess data management and reporting tools to inform product development



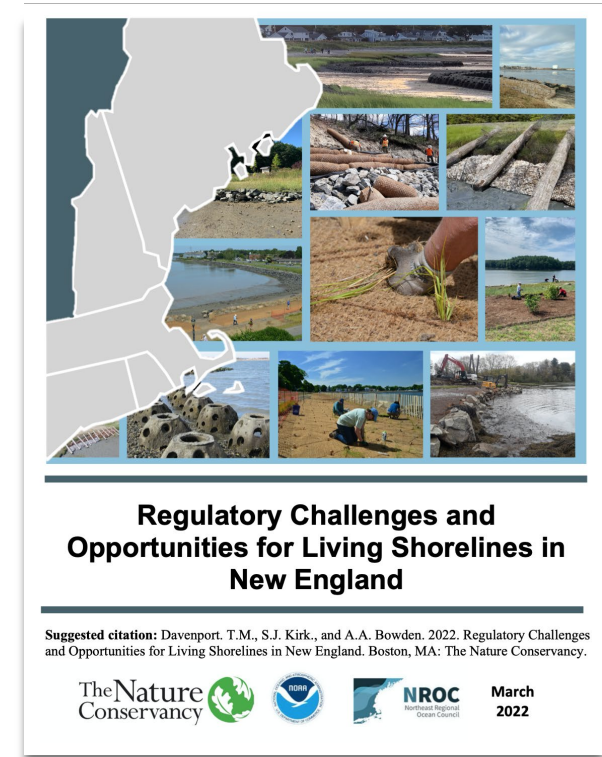
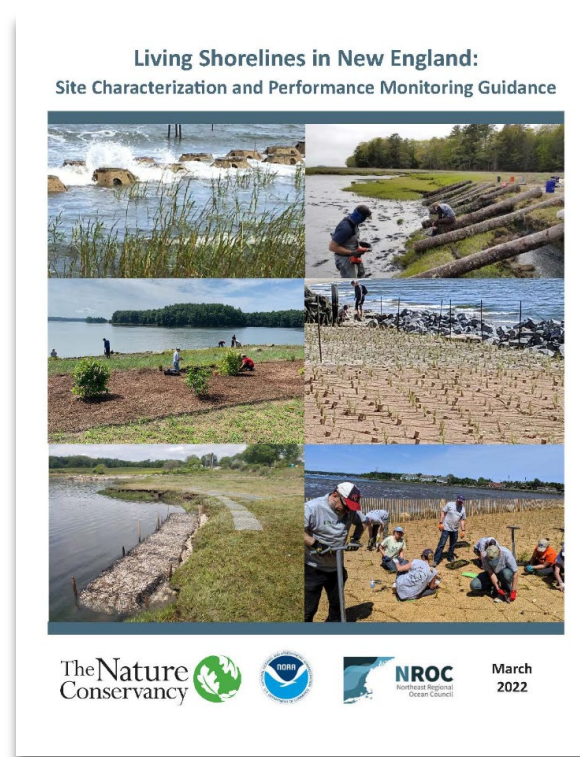
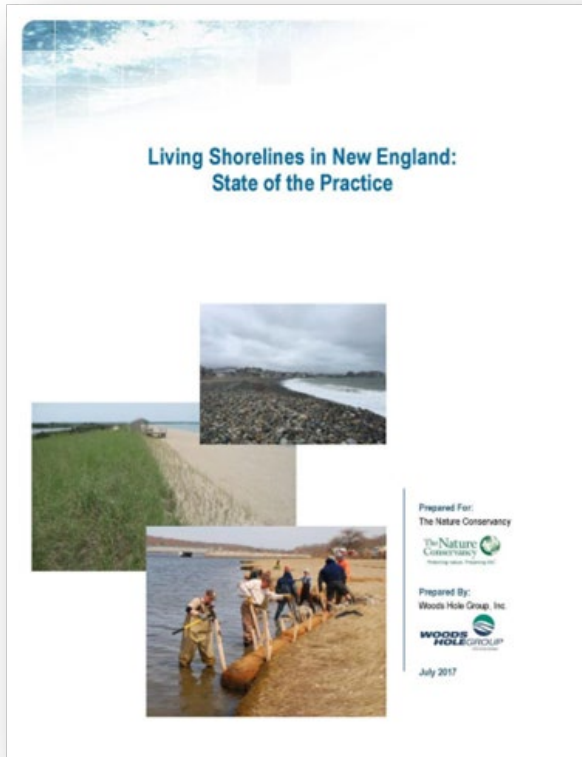
Find out more: <https://www.northeastoceancouncil.org/project/water-level-sensor-network/>

Advancing Living Shorelines in New England

Purpose

- Advance implementation of living shorelines projects in New England by increasing shared understanding of regulatory issues, monitoring techniques, and living shorelines approaches





2024 Living Shorelines Activities

- Interviews, workshops, webinar
- Educational site visit to Wagon Hill Farm living shoreline, NH
- Identified **key need for training opportunities**



Spring 2025 Living Shorelines Training Workshops

- 3 in-person full-day workshops and site visits during March and April
- 130+ workshop attendees
- In-depth learning and knowledge exchange through case studies
- Hosted webinar in April to share key takeaways, 140+ attendees



Braintree, MA



Stratford Point, CT



Wells, ME

Key Takeaways for Successful Living Shorelines (1 of 2)

- **Early on-site engagement with permitting agencies** to ensure agreement around project goals, approaches, and permitting requirements
- **Flexibility** is important as best projects often advance multiple goals and combine several LS design approaches
- Careful **site selection** to ensure **suitability** for selected living shorelines approach
- **Community outreach** is key to building community support and engaging volunteers in monitoring



Key Takeaways for Successful Living Shorelines (2 of 2)

- **Living shorelines provide co-benefits.** Projects often advance coastal resilience and shoreline stabilization + protect and restore habitat
- **Collaboration** among landowners, municipal departments, and other partners is needed to identify and advance shared priorities
- Small **investments in adaptation** informed by **effective monitoring** are critical to successful living shorelines



Next Steps for Advancing Living Shorelines in 2025

Jumpstart New Living Shorelines Projects

- Up to 10 new projects
- Expert design and planning support
- Engagement throughout the region

Add LS to the Northeast Ocean Data Portal

- Living shorelines sites, case studies, site suitability, tools, resources, etc.
<https://www.northeastoceandata.org/>

Resources from Workshops and Webinar

- Will be posted: <https://www.northeastoceancouncil.org/project/living-shorelines/>



Thank you!

Questions, feedback, discussion

Living Shorelines Project Team Leads

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