Narragansett Bay Tidal Crossing Study



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5/12/2026
NBEP Habitat Restoration Strategy Kickoff
Seekonk, MA





COMMONWEALTH OF MASSACHUSETTS

Division *of* Ecological Restoration

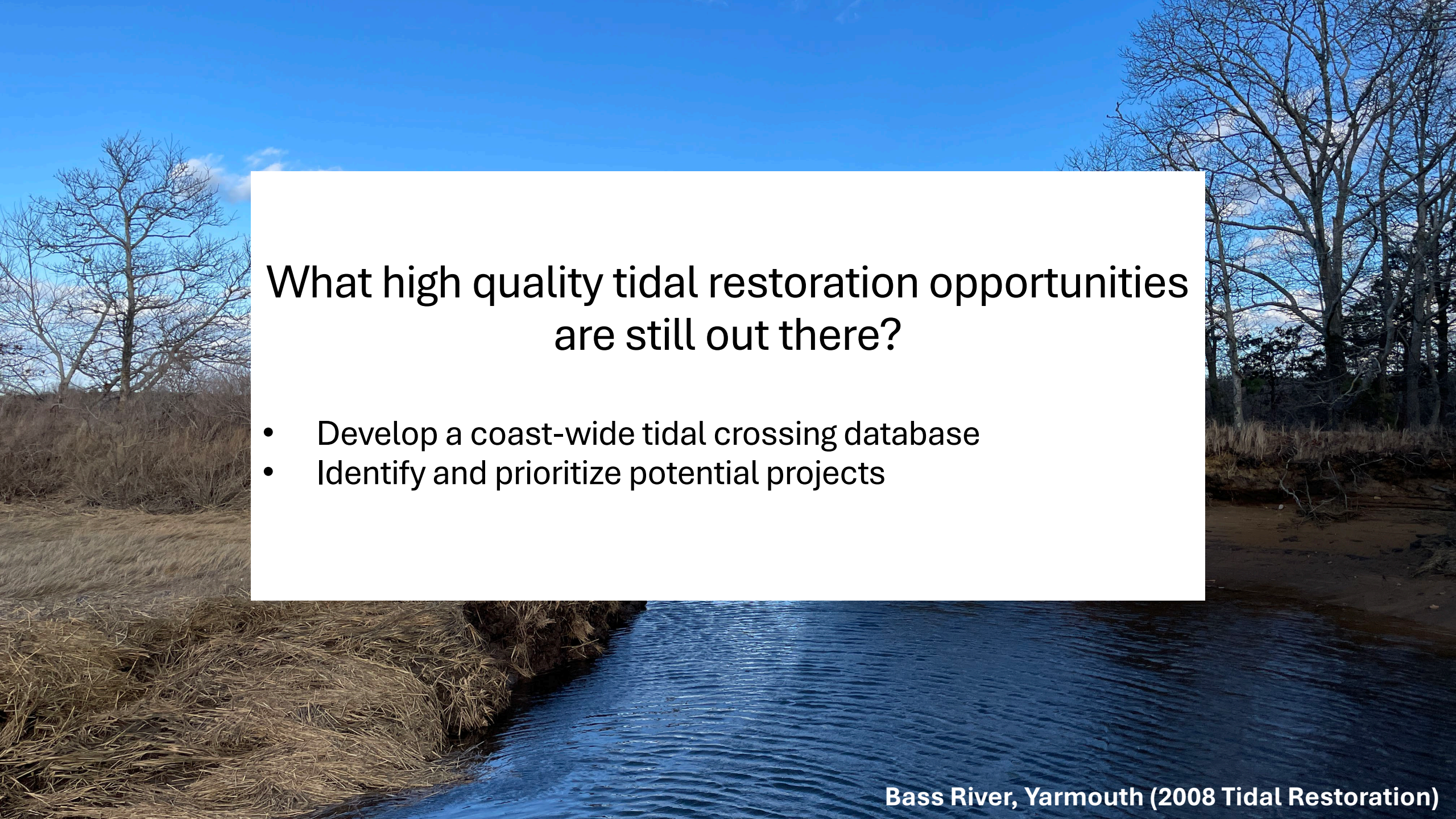
Invested in Nature & Community

Mission: Restore and protect rivers, wetlands, and watersheds for the benefit of people and the environment.









What high quality tidal restoration opportunities are still out there?

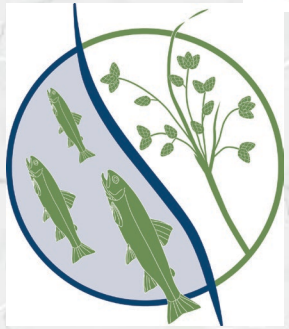
- Develop a coast-wide tidal crossing database
- Identify and prioritize potential projects

Bass River, Yarmouth (2008 Tidal Restoration)

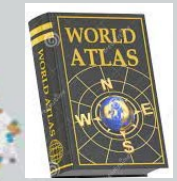
Develop a coast-wide tidal crossing database (2020-2022)

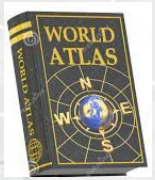


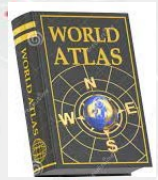


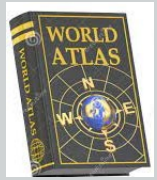












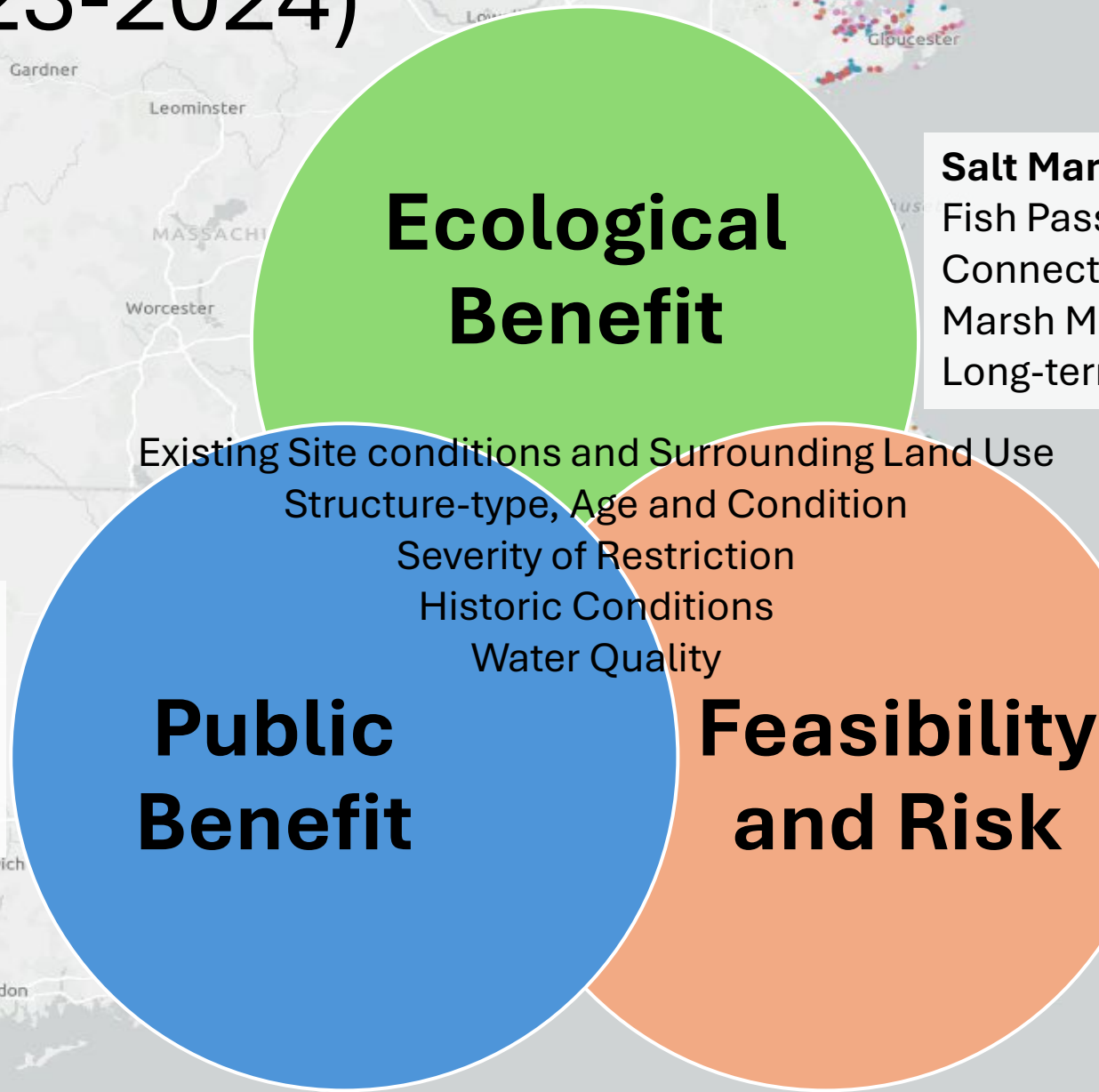


Database Sources

- Tidal Atlases: Buzzards Bay, Mt. Hope Bay, South Shore, and Cape Cod Tidal Atlases
- DER Project Tracking Database and Great Marsh Database
- IRWA Tidal Assessments
- CZM/MassBays NEP TIDEGateway Geodatabase
- CZM Sandy Neck ACEC Assessment
- Umass Designing Sustainable Landscapes Tidal Restrictions
- NAACC Unassessed Stream Crossings

Draft Viewer is Publicly Available:
https://experience.arcgis.com/experience/8c948f06227b47e4a4b5b496eceb6561/page/Map

Identify and prioritize potential projects (2023-2024)



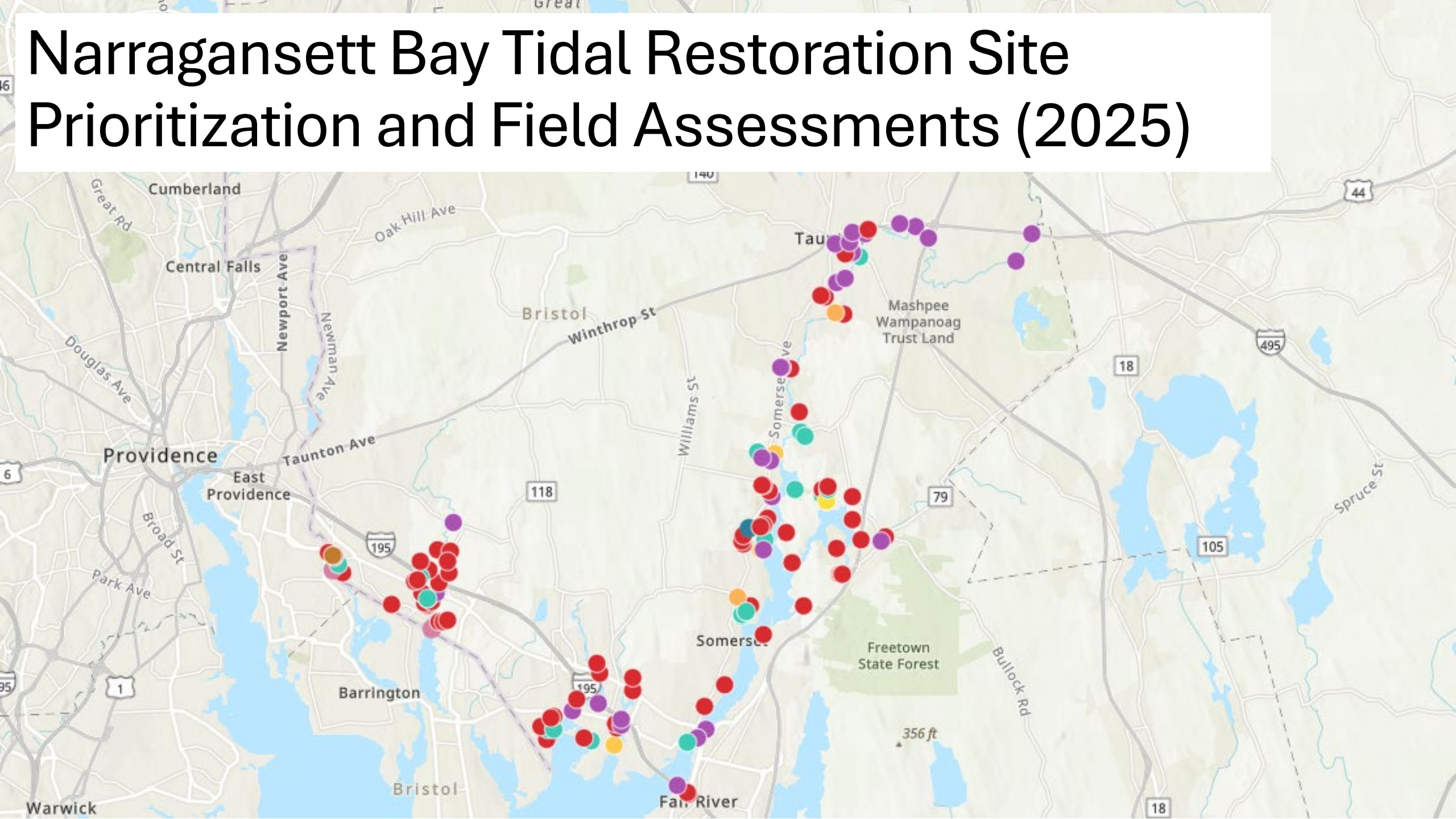
Salt Marsh Restoration Potential
Fish Passage
Connectivity
Marsh Migration Potential
Long-term Salt Marsh Resilience

Existing Site conditions and Surrounding Land Use
Structure-type, Age and Condition
Severity of Restriction
Historic Conditions
Water Quality

Recreational Opportunities
Economic Benefits
Access/Accessibility
Benefits to EJ Communities
Flood Resilience Benefits

Crossing Ownership
Transportation Type
Partners
Neighbor and Public Support
Cost
Upstream Flooding

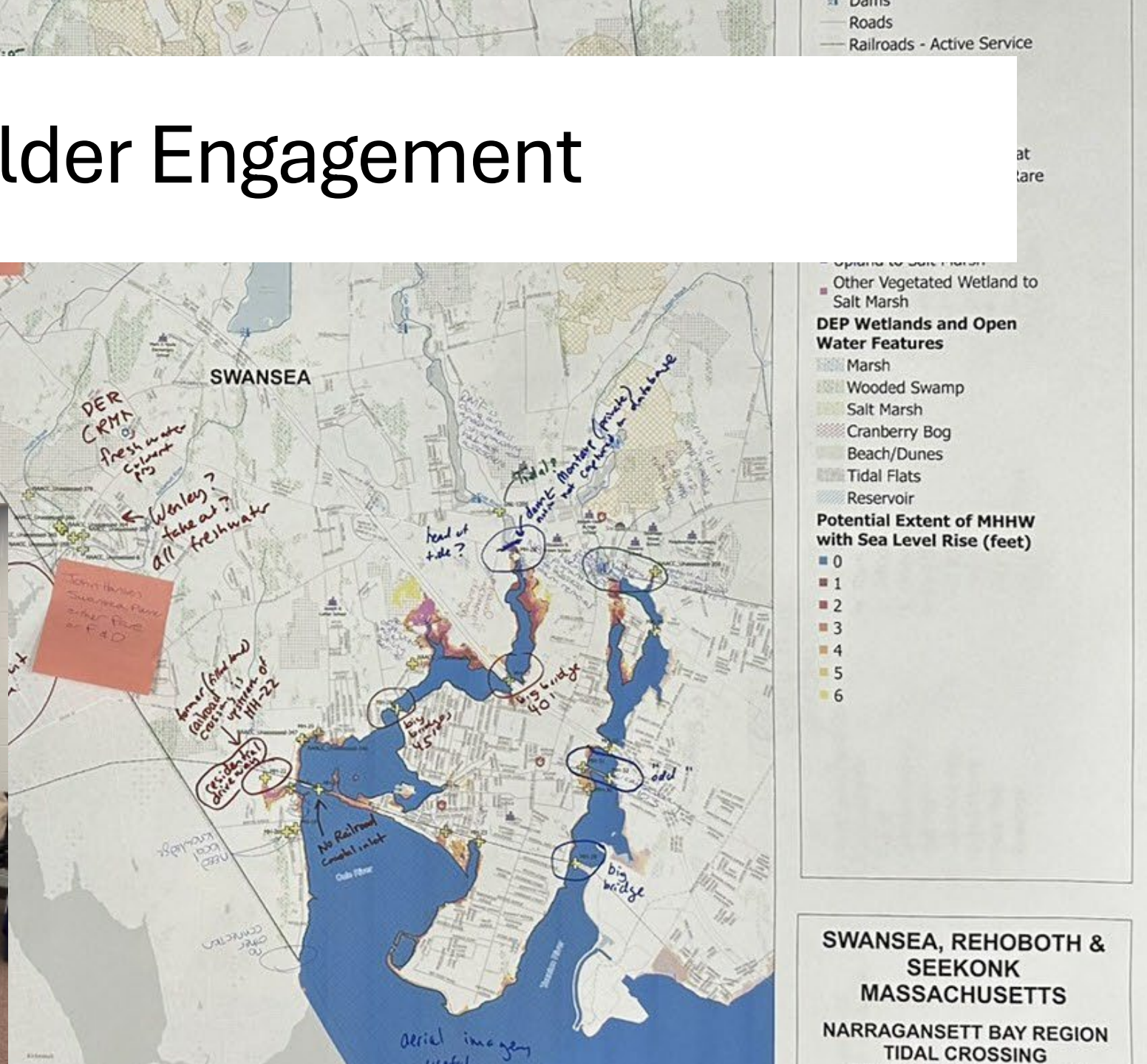
Narragansett Bay Tidal Restoration Site Prioritization and Field Assessments (2025)



Targeted Stakeholder Engagement



Core Team Workshop
January 2025



Field Assessments of Priority Sites

- Full Tidal Assessments using North Atlantic Aquatic Connectivity Collaborative (NAACC) Tidal Crossing Protocol (19 sites)
- Quick Assessments (27 sites)



Narragansett Bay Tidal Restoration Site Prioritization and Field Assessments

Results

- 8 high priority projects identified (~ 23 tidal crossings)
- Tidal stream crossing surveys for all sites assessed using the NAACC protocol were uploaded to the NAACC Data Center .
- Findings summarized in report, story map and online viewer (draft form).

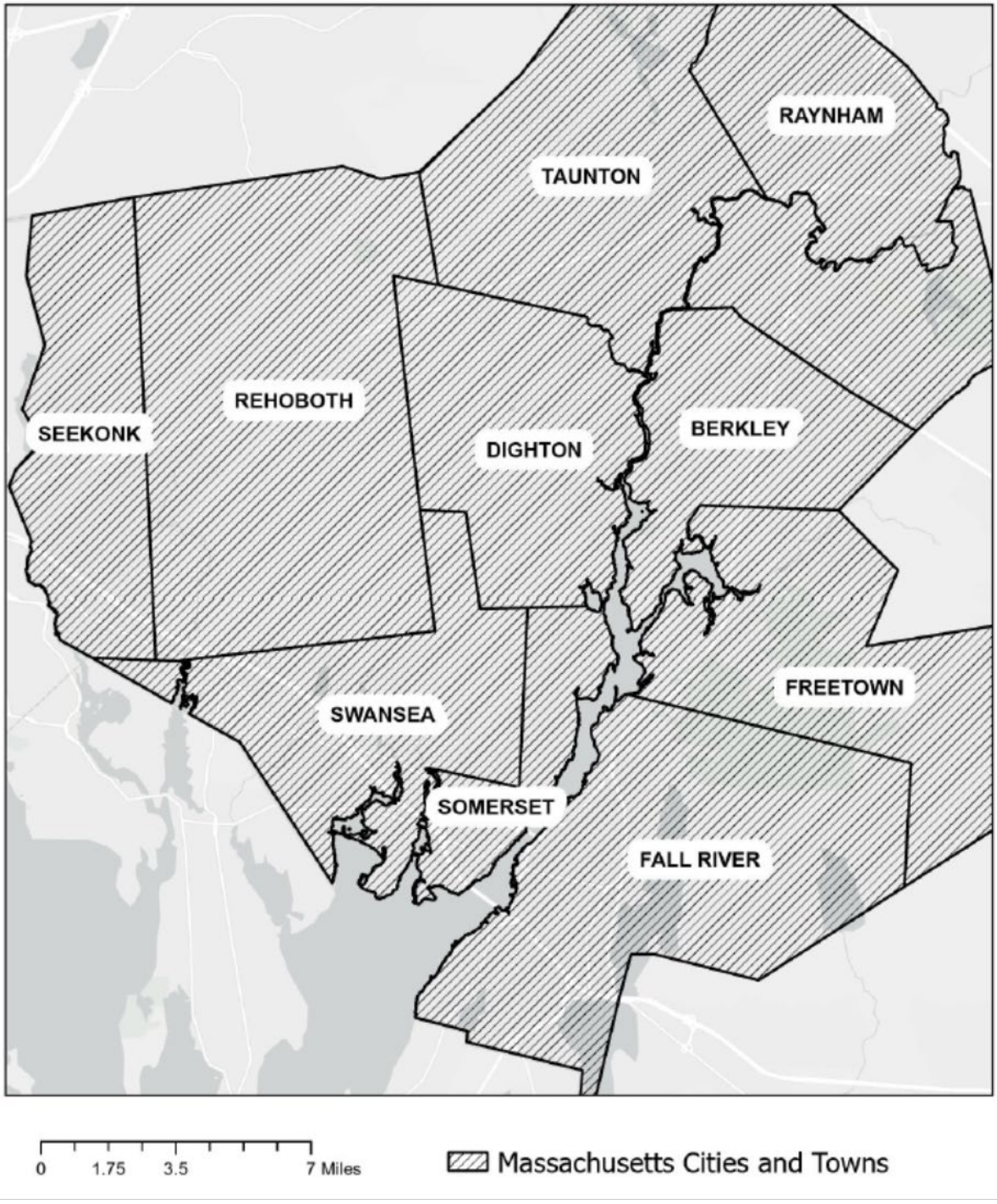
Lessons Learned

- A more diligent review of what's already been done in the region prior to meeting with people
- Be ok with re-inventing the wheel but don't forget to use what's been done
- Huge benefit of this study for DER (and hopefully for others) was re-establishing connections in this region

Next Steps: Narragansett Bay Tidal Field Investigations

- Site Selection (Spring/Summer 2026)
  - Application Period Closed May 11, 2026
- Field Investigations (Fall 2026-Spring 2027)
  - Field (and desktop) assessments to gather information needed to develop existing conditions plan and inform tidal restoration planning
  - May include tidal study, wetland resource delineation, targeted topographic and bathymetric surveys, and subsurface borings as applicable

https://www.mass.gov/how-to/ders-tidal-restoration-preliminary-field-investigations



Long-Term Goals

- Implement high potential projects identified in the NB region
- Expand this work (and lessons learned) to other regions of the coast
- Continue to update/refine our tidal crossing database

Thank you!

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ResilientMass

CZM

FUSS & O'NEILL

Geosyntec consultants

Prioritization Matrix Criteria

Core Stakeholders

- Basic Site Information
  - Crossing Type (road culvert/bridge, trail crossing, berm, bridge abutment, etc.)
  - Ownership
  - Status of Restoration Work at the Location (i.e. ongoing project design, recently replaced, etc.)
  - DER Preliminary Score
- Climate Change Considerations
  - Marsh Migration Potential
  - Climate Resilience/Flooding Benefits
  - Future Impacts of Sea Level Rise (SLR)
- Level of Resource Potential and Scale of Benefits
  - Degree of Constriction/Restriction
  - Tidal Status (i.e. salt marsh, brackish, freshwater tidal, future tidal with SLR)
  - Extent of upgradient marsh acreage
  - Fisheries or Rare Species Habitat
  - Invasive Species Impacts
- Restoration Professional Judgement/X Factor

Municipalities

- Urgency of the Project or Limited Window of Opportunity
- Feasibility
  - Ownership concerns; local support or opposition; major site constraints
  - Relative cost
  - Funding availability/fit with grant sources
  - Permitting Complexity
  - 'Criticality' -- Surrounding Low-lying Infrastructure/Property Risks
- Compatibility with Other Resource Initiatives
  - Flood Prevention
  - Public Safety
  - Prioritization in Other Planning Documents
  - Priority for Replacement Based on Aging Infrastructure/Structural Condition
  - Opportunities to Increase Recreational Access