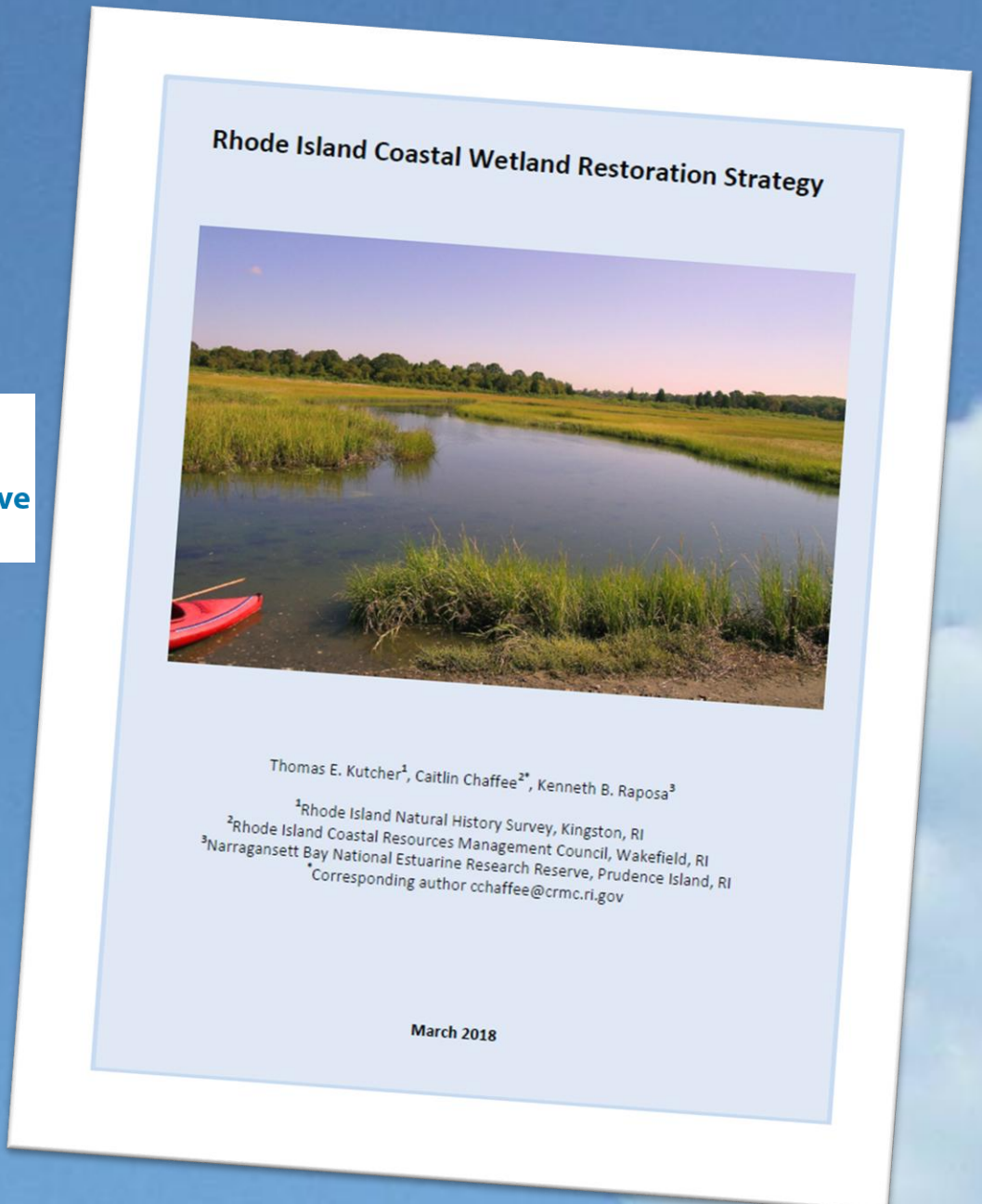
Rhode Island Coastal Wetland Restoration Strategy

Tom Kutcher

RI Natural History Survey

May 12, 2026



1. Strategy details: Your organization, geographic region, habitat/ecological function focus, year published (including any major updates since publication)

3. Organizations or agencies that you regularly partner or coordinate with to develop or implement the plan

- Olivia Ahern, Narragansett Bay Estuary Program
- Walter Berry, EPA Atlantic Ecology Division
- Gary Casabona, NRCS
- Christopher Deacutis, DEM Division of Fish and Wildlife
- Marci Cole-Ekberg, Save The Bay
- Wenley Ferguson, Save The Bay
- David Gregg, RINHS
- Meg Kerr, Audubon Society of Rhode Island
- Rose Martin, EPA
- Laura Meyerson, University of Rhode Island
- Larry Oliver, USACE
- Suzanne Paton, USFWS
- Margherita Pryor, EPA Region 1
- Charles Roman, University of Rhode Island
- Scott Ruhren, Audubon Society of Rhode Island
- Linda Steere, Applied Biosystems
- Jim Turek, NOAA Restoration Center
- Elizabeth Watson, Drexel University
- Robin Weber, NBNERR
- Jennifer West, NBNERR
- Cathy Wigand, EPA Atlantic Ecology Division



2. What is the ultimate vision for your strategy or the reason you originally developed a strategy?

- Salt marshes are rapidly degrading and losing area due to sea-level rise, impoundment, eutrophication, and other stressors.
- We are losing functions and values, including species that critically depend on marshes for survival.
- Sea-level rise is accelerating.
- We needed a coordinated effort to address this dire situation.
- We needed a documented strategy to support funding proposals.







2. What is the ultimate vision for your strategy or the reason you originally developed a strategy?

Vision

Coastal wetlands perpetually retain the critical functions and ecosystem services they have provided historically.

Goals

1. Wetland area loss is minimized through restoration, conservation, and other interventions;
2. Management minimizes loss of critical functions and ecosystem services across broad systems.

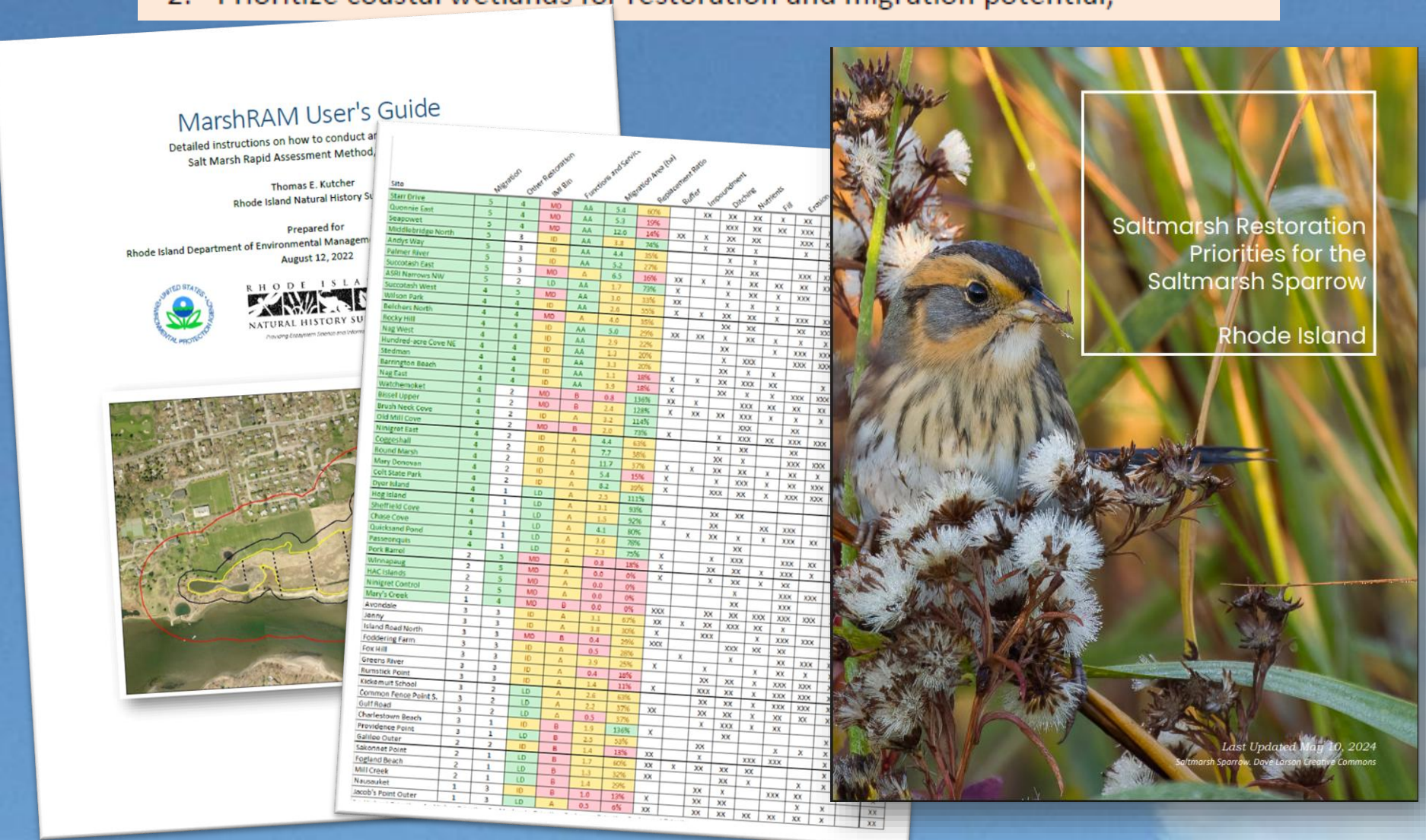
Objectives

1. Develop restoration and intervention prioritization tools based on the criteria outlined in this Strategy;
2. Prioritize coastal wetlands for restoration and migration potential;
3. Systematically maintain or restore the ecosystem functions and services of coastal wetlands based on priorities outlined in this Strategy;
4. Systematically evaluate restoration outcomes;
5. Identify, evaluate, adapt, and implement the most effective and efficient management practices.

4. Example projects or efforts, completed, ongoing, or planned, that implement your plan

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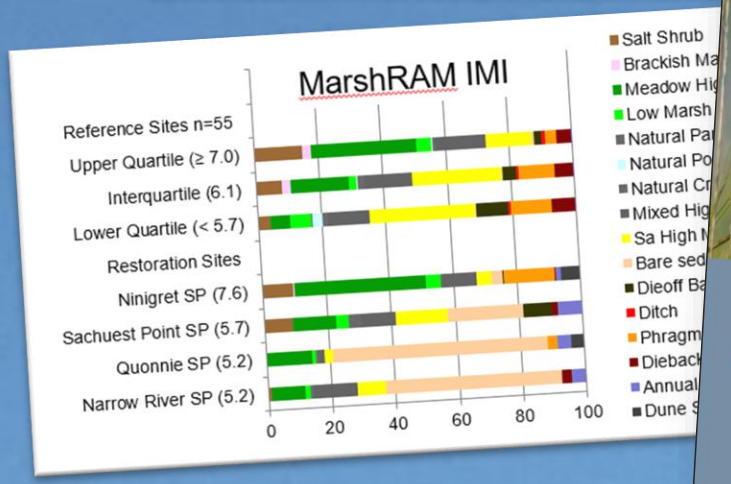
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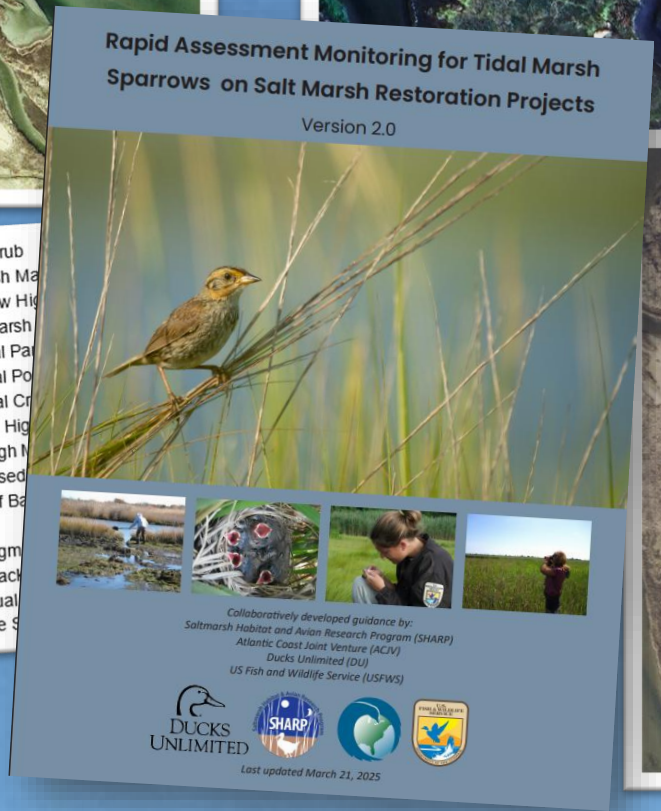


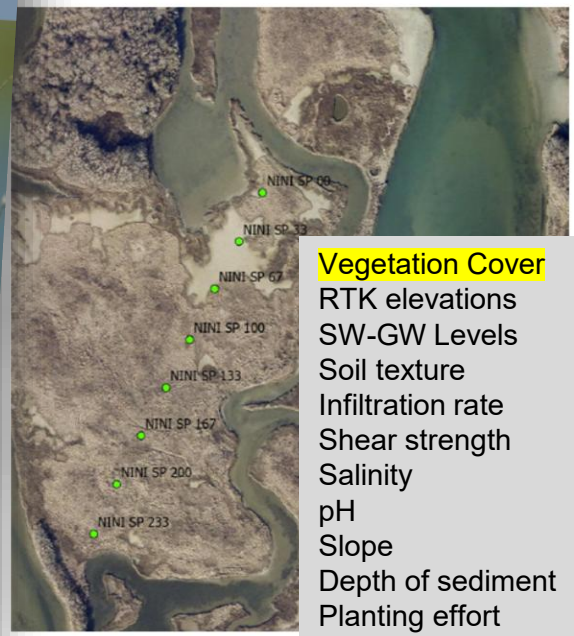
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4. Systematically evaluate restoration outcomes;
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Vegetation Cover
RTK elevations
SW-GW Levels
Soil texture
Infiltration rate
Shear strength
Salinity
pH
Slope
Depth of sediment
Planting effort

5. Any methods that you've developed to track progress/success on your plan's vision
6. Any part of your plan that you wish you had done differently or that you thought was particularly effective

Appendix A. Tasks to Operationalize the Rhode Island Coastal Wetlands

1. Objective: Continue to develop and formalize a coastal wetland monito restoration program for RI (anticipated completion dates in parentheses, >> = currently in progress, $ = funding currently available)

Action	
1.1 Retain FTE wetland scientist to manage and work c program development ($ >>)	
1.2 Further formalize technical advisory/working grou program lead, and organizational structure	
1.3 Develop and maintain a coastal wetlands monitori assessment, and restoration website and/or data p to house information on protocols, methods, metr restoration actions, restoration outcomes, and all aspects of coastal wetland management	

2. Objective: Develop restoration and interventi outlined in this Strategy

Action	
2.1 Finalize and update existing Tier 1 vegetation comm mapping and assessment methods	
2.1.1 Test accuracy versus field data and work to accuracy as needed (>>)	
2.1.2 Run classification on 2016 aerial imagery	
2.1.3 Develop metrics for vegetation community: MarshRAM coefficients, SLAMM, or other m	
2.1.4 Validate against Tier 2 or other available dat Watson loss data)	
2.1.5 Research other available Tier 1 prioritization (2020)	
2.2 Identify critical unknown information, and carry out and monitoring needed to fill gaps in knowledge	
2.2.1 Collect tide-frame data in sub-estuaries and marsh systems ($) (2018)	
2.2.2 Evaluate marsh migration potential in variou soils, slopes, and SLR rates ($ >>)	
2.2.3 Monitor *Phragmites* long-term response to accelerating SLR	
2.2.4 Assess *Phragmites* long-term effects on marsh migration	URI, NBNERR
2.2.5 Quantify gains and losses in coastal wetland and services under accelerated SLR	
2.2.6 Establish baseline historic marsh area and a	
2.3 Validate Tier 2 Marsh RAM against existing data, su Watson loss data, Tier 1 metrics, RISMA, Tier 3 data (2019)	
2.4 Develop a probabilistic condition/vulnerability refe gradient using Tier 2 data, against which individual be compared for prioritization or restoration evalu	
2.5 Expand Tier 3 monitoring site network (>>)	
2.6 Develop Tier-3 metrics or models to predict region- resiliency and marsh migration potential, such as M refined SLAMM, MARS, etc.	
2.7 Develop funding mechanisms and/or partnerships t collection of long-term, standardized data for Tiers	

3. Objective: Prioritize coastal wetlands for rest completion dates in parentheses, >> = currentl

Action	
3.1 Develop a protocol for prioritizing coastal wetland s statewide, for restoration, intervention, and conse (2020)	
3.1.1 Identify and quantify, if possible, collective and services held by coastal wetlands in RI	
3.1.2 Assess which tools and information will bes statewide prioritization	
3.1.3 Apply criteria for statewide prioritization (o this report) to develop classes and ranks fo restoration, intervention, and conservation	
3.1.4 Develop scoring sheet based on CEHRTF	
3.1.5 Develop spreadsheet-based model that cat individual wetlands based on the scoring sh	
3.2 Collect data statewide to populate the prioriti model (>>)	
3.3 Use prioritization model and protocol to categorize coastal wetlands for restoration, intervention, or c	

4. Objective: Systematically maintain or restore the ecosystem functions and serv wetlands based on priorities outlined in this Strategy (anticipated completion d parentheses, >> = currently in progress, $ = funding currently available)

Action	Potential Funding Source
4.1 Pursue funding and resources to restore, intervene, or conserve coastal wetlands based on statewide priority and opportunity	RIDEM Open Space grants, CEHRTF, Federal Programs
4.2 Work with partners to evaluate proposed restoration projects according to established protocol (Objective 3)	
4.3 Quantify or otherwise document functions and services restored or conserved	

5. Objective: Systematically evaluate restoration outcomes

Action	Potential Funding Source
5.1 Develop specific monitoring and assessment protocols and metrics for particular intervention types through consensus of coastal wetlands monitoring and assessment group	EPA WPDG
5.1.1 Test metrics, as needed, to validate utility	
5.1.2 Publish monitoring and assessment protocols and make them available through coastal wetland restoration program website	EPA WPDG
5.2 Analyze restoration outcomes on short-term and long-term scales	
5.2.1 Short-term analysis of metrics versus reference gradient using various levels of monitoring data	
5.2.2 Long-term analysis of matured (> 10 yr) restorations using original monitoring data versus new data, and rapid assessment versus established condition/ vulnerability reference gradient ($) (2020)	EPA WPDG
5.3 Identify, evaluate, adapt, and implement the most effective and efficient restoration and intervention practices	
5.3.1 Use monitoring results to evaluate outcomes and effectiveness of specific interventions	
5.3.2 Use field experiments, as needed, to test various methods or method variants/modifications to promote effectiveness and efficiency	
5.3.3 Modify prioritization protocols/models and monitoring/assessment protocols as needed	

6. Any part of your plan that you wish you had done differently or that you thought was particularly effective

- Salt Marsh Restoration Assessment and Monitoring Program (RAMP)
  - Broad partnerships
  - Commitment
  - Regular meetings
  - Managed
- Actionable objectives
- Informative and accessible









For more information visit:

https://www.crmc.ri.gov/habitatrestoration/RICWRestorationStrategy.pdf

https://www.nbep.org/salt-marsh-ramp



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