



MassMarsh

Massachusetts Long-term

Salt Marsh Resilient Research & Monitoring Program

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MassMarsh Advisory Committee

Massachusetts' Long-term Salt Marsh Resilient Research & Monitoring Program

1. **Andy Finkle**, Woods Hole Group
2. **Anne Giblin**, Marine Biological Laboratory
3. **Sara Grady**, Mass Audubon
4. **Kris Houle**, Tighe & Bond
5. **Russ Hopping**, Trustees
6. **Pat Huckery**, Mass Wildlife
7. **Rachel Jakuba**, Buzzards Bay Coalition
8. **Cristina Kennedy**, MA Div. of Ecological Restoration
9. **Jordan Mora**, Assn. to Preserve Cape Cod
10. **Adrienne Pappal**, MA Office of Coastal Zone Mgmt.
11. **Nancy Pau**, USFWS Parker River National Wildlife Refuge
12. **Danielle Perry**, NOAA
13. **Steve Smith**, Cape Cod National Seashore
14. **Jason Steiding**, Mashpee Wampanoag Tribe
15. **Megan Tyrrell**, Waquoit Bay National Estuarine Research Reserve
16. **Cathy Wigand**, EPA Region 1
17. **DEP Team** (Lisa Rhodes, Nate Corcoran, Dave Hilgeman, Tay Evans)
18. **Core Coordination Team** (UMass, UNH, CZM, DMF)

Goal & Objectives

Establish a long-term (~20 years) monitoring program to guide conservation efforts directed at maintaining the Commonwealth's salt marshes, the biodiversity they support, and the ecosystem services they provide.

Marsh Monitoring Metrics & Methods Categories

1. Marsh Condition: monitor **status and trends** of salt marsh ecological function
2. Threats: monitor impacts of **stressors** that negatively impact salt marshes
3. Climate Adaptation: Evaluate and document the **efficacy of marsh adaptation techniques**

Document recovery **trajectories of marshes after restoration and climate adaptation projects have been implemented**

Year 1: Develop a Monitoring Plan

In collaboration with the Advisory Committee, we will develop a Plan to:

1. **Frame a long-term strategy** for a statewide, comprehensive salt marsh monitoring program
1. **Develop an approach for monitoring** marsh restoration/adaptation projects to evaluate and document effectiveness of restoration/adaptation techniques
1. **Identify Standard Operating Procedures** (SOPs) to be developed for various marsh restoration/adaptation techniques and to structure monitoring projects
1. **Implement a technical assistance process** to aid in monitoring project design and data analysis
1. **Compile and communicate data** from past, current, and future monitoring projects
1. **Establish ways for UMass to assist practitioners**, e.g., loaning monitoring equipment, UAS data collection, student field technicians, advice/assistance in study design and data analysis, data sharing

Timeline: Year 1 Progress

Progress									
Received project funding	Survey (n=129): Assess Use of Methods & Metrics	Remote Sensing: Pair field with RS observations to document change in marsh veg and inundation		Draft Plan: SOP concept for monitoring defined metrics		1st Draft for each SOP (veg, hydro, sed/elevation)		Year 1 Progress drafts due: Monitoring Plan, Report Template	Year 1 Progress Report due with Y2+ vision, schedule, timeline
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Advisory Committee formed	AC Meeting #1: kickoff, survey findings	Identify MA sites for long-term status & trends monitoring = 1:1 discussions		AC Meeting #2: frame SOP concept using Vegetation		AC Meeting #3: frame Hydrology & Sediment/ elevation SOPs	AC Meeting #4: Review Report Template	AC Meeting #5: Review Draft Plan to date	
	Website created	Identify current or future restoration sites for monitoring = 1:1 discussions				Update Website			Update Website

Next Steps

- Continue to convene the Advisory Committee
- Develop field observations to assess the efficacy and design of salt marsh restoration/adaptation projects
- Provide direct support to practitioners engaged in salt marsh restoration/adaptation projects
- Establish long-term monitoring sites across the Commonwealth
- Develop additional monitoring SOPs with input from stakeholders



Thank you!

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