



## Management Committee Meeting Summary

July 25, 2018

9:30 am – 12:30 pm

Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Room 2B, Boston

---

### Attendees:

#### *Management Committee*

Robert Buchsbaum (Salem Sound Coastwatch [SSCW])  
Joe Cosgrove (Merrimack Valley Planning Commission [MVPC])  
Mel Côté (U.S. Environmental Protection Agency [EPA])  
Lisa Engler (MA Office of Coastal Zone Management [CZM])  
Tay Evans (Division of Marine Fisheries [DMF])  
Andrew Gottlieb (Association to Preserve Cape Cod [APCC])  
Ken Keay (Massachusetts Water Resources Authority [MWRA])  
Stephen Kirk (The Nature Conservancy [TNC])  
Vandana Rao (Executive Office for Energy and Environmental Affairs [EEA])  
Julie Simpson, (MIT Sea Grant) [STAC Chair]  
Kristin Uiterwyk, Chair (Urban Harbors Institute [UHI])  
Colin Van Dyke, Vice Chair (Anderson-Krieger )  
Samantha Woods (North and South Rivers Watershed Association [NSRWA])

#### *Coordinators and Staff*

Pam DiBona (MassBays, Executive Director)  
Prassede Vella (MassBays, Staff Scientist)  
Jo Ann Muramoto (APCC, Cape Cod Regional Coordinator)  
Margherita Pryor (EPA, U.S. Environmental Protection Agency)

#### *Other Attendees*

John Logan, DMF

### Welcome and Introductions

Committee Chair Kristin Uiterwyk opened the meeting and welcomed the attendees. After introductions and review of the agenda, she introduced Tay Evans as the new representative for Division of Marine Fisheries.

### Committee Business

**Finance Subcommittee:** Colin Van Dyke reported that Andrew Gottlieb led an effort to include state funds for MassBays to use as match to EPA's grant in the 2018 Massachusetts Environmental Bond Bill. Andrew reminded the Committee that the Regional Service Providers are providing the bulk of MassBays' required 1:1 match to Clean Water Act §320 funds granted by EPA. At the time of the Committee meeting, the Bond Bill was being considered by the legislature's conference committee – a question remained as to whether the proposed authorization for funding to MassBays would be included in the final version, as only the House included it in their bill. Andrew encouraged those who could to contact their Senators and ask them to weigh in and support the House's language.

*Update: The legislature included \$660,000/year authorization for Massachusetts Bays National Estuary Program in the 2018 Environmental Bond Bill subsequently signed by Governor Baker. While the Bond authorizes spending by EEA, the Secretary must include it in his own capital funding request*

*for the funds to be allocated. Pam has alerted Bruce Carlisle and offered to provide justification and/or background information.*

The Finance subcommittee will meet during the last week of August to discuss a draft report and recommendations to the Management Committee.

**Science and Technology Advisory Subcommittee:** Prassede Vella updated the Committee on progress (by STAC) toward setting target conditions for MassBays embayments and starting to develop a Biological Condition Gradient (BCG) framework for MassBays (an approach endorsed by the Committee at the October 2017 meeting). Prassede reported on the findings of the NUMSC team led by Jon Grabowski (presented to STAC on May 30, 2018) that identifies four “types” of embayments based on statistical analyses, categorization that facilitates type-specific target setting. The final report is available upon request to [prassede.vella@mass.gov](mailto:prassede.vella@mass.gov). STAC members provided feedback and recommendations including conducting a sensitivity analyses in the coming months and conducting analyses to include Beverly Harbor. Also at the May STAC meeting, Emily Shumchenia presented proposed work on the BCG that she and Prassede had developed for initial feedback from STAC. Next steps will be to work with the Subcommittee and regional stakeholders to develop narrative targets for each embayment type and to compile additional data. A scope has been developed to guide work through June 2019.

**Communications and Outreach Subcommittee:** Pam DiBona explained that Pacer/Strategies’ Cyndi Gonzales interviewed multiple partners and stakeholders as she examines MassBays’ current communications efforts, identifies gaps, and develops creative ways to tell MassBays’ story to specific audiences, including potential funders. The Communications Plan will lay out the different ways in which MassBays can communicate with stakeholders, including legislators. Cyndi has submitted the first two sections of a Strategic Communications Plan to be discussed as part of a Communications & Outreach Subcommittee conference call, scheduled for September 13th.

#### **Harbor Tour**

Stephen Kirk extended an invitation to the Management Committee for a tour of Boston Harbor in September. The Committee expressed interest. The next step will be to schedule a date; Pam will follow up with Steve.

#### **Federal FY18 Workplan Overview**

*Pam DiBona, MassBays*

Pam DiBona presented the Federal Fiscal Year 2018 Workplan (July 1 2018 to June 30 2019) and report on accomplishments for FFY 2017 (July 1 2018 to June 30 2018) submitted to EPA following endorsement by the Management Committee (see slides, attachment A).

The workplan was developed through meetings with the regional coordinators (who in turn consulted with their Local Governance Committees) and EPA. The workplan is based on the environmental and management challenges identified in the CCMP, and the strategic actions identified to address them. Highlights for the coming year include:

- Finalization of the CCMP, due at the end of this calendar year
- State of the Waters: Cape Cod (a MassBays-wide State of the Bays is due in 2020)
- Pam’s nomination to become the Chair of the Association of National Estuary Programs (pending an election in October), which should open up new opportunities for MassBays to access national funding sources through collaborative grants.
- Work to be carried out by regional coordinators in their respective regions.

Regarding the budget, while EPA requires a 100% match to EPA funds, this year MassBays required a 50% (direct) match from the Regional Service Providers, which they exceeded with project match. A state-funded project match of 28% was included in the budget match this year, more than \$180K in funding that will go to a Salem Sound resilience project on which the Lower North Shore RSP is a

partner. These funds do not come to MassBays, but are spent on efforts that help to meet the goals of the CCMP and thus can be counted toward the 100% match requirement.

The Committee discussed the possibility of using additional state grants as project match in the future, to decrease the burden on the Regional Service Providers. This is possible on a case-by-case basis, and requires coordination with CZM.

Colin thanked the Central Staff for making the draft workplan available to the Management Committee for feedback, and thanked everyone for their comments and contributions. Margherita pointed out that the use of tables made it easier to follow the many accomplishments and future tasks in the work plan.

### **Salt Marsh Aboveground Production in New England Estuaries in Relation to Nitrogen Loading and Environmental Factors**

*John Logan, Division of Marine Fisheries*

John Logan [presented](#) an overview of his work on salt marshes which builds on [previous work](#) funded by MassBays to characterize impacts of shading by docks and piers on salt marsh communities in Massachusetts. In this most recent work, over 200 stations in salt marshes across Massachusetts were sampled for nitrogen in the stems of *Spartina alterniflora* and *Spartina patens*. The purpose of the study was to look at N ratios from *Spartina* spp. stems (stem density/biomass/height) as approximate N-proxies (( $\delta^{15}\text{N}/\text{DIN}/\text{N-loading}$ ) together with physical characteristics including distance and elevation. For *S. alterniflora*, results showed a general consistency in modelled relationship with all three nitrogen proxies. Stem density decreased with elevated nitrogen, while stem height and biomass increased. *S. patens* on the other hand generally showed increased aboveground production with increased levels of nitrogen in the environment. Results indicated interesting interactions at low elevation where marsh is exposed to aquatic environments. John stressed that limitations in using N-proxies and that the N loading data used may not capture all the stressors and conditions in the system. The study design did not include a fertilization gradient. Nonetheless, the findings were consistent with the literature of controlled fertilization studies. John recommended future work on below-ground nitrogen levels as well as a carefully designed study to measure a fixed gradient of wastewater input.

#### **Q & A**

Q: How well do these results compare to nitrogen studies? A: Earlier studies relied on fertilization that may not be a good representative of real conditions. The biggest effects were observed belowground. Aboveground, studies indicated similar results for *S. alterniflora* but somewhat different for *S. patens* in which case a pristine system was flooded with nitrogen.

Q: Is there any understanding of whether these conditions weakened corresponding belowground structure of the salt marsh? A: There are concerns that with increase in microbial production, there is increase in decomposition, resulting in fewer rhizomes and therefore increased erosion. It is important to keep in mind that belowground conditions are vital to maintain the salt marsh structure.

Q: Is there concern about algal growth on marshes (as mats) and possible smothering of marshes? A: Eutrophic conditions may give rise to algal growth that could be detrimental to marshes. This conditions has been observed in marshes on the south shore in Massachusetts. Studies on the west coast and east coast are ongoing.

### **Management Committee Member Updates**

The Nature Conservancy: (1) TNC supports EEA with the MVP program, helping train the trainers and helping to spread the work to include more towns. (2) A task force was established by EEA to advance the Massachusetts Shellfish Initiative. The MSI task force is looking at existing management with the aim of revising the strategic management plan for Massachusetts. (3) Coastal resilience grant funding by NOAA has been awarded to various communities across New England. One of the goals is to develop standard monitoring protocols for living shorelines. (4) TNC is exploring ideas for employing innovative financing for testing technology for section 208 implementation.

Association to Preserve Cape Cod: (1) APCC has begun its State of the Waters project and is researching examples of report card formats and sources of water quality data. They will be looking to STAC for input. This project is funded by a \$50K MET grant and funds from an EPA SNEP grant. (2) APCC is working for the Town of Wellfleet to develop a model conservation bylaw for climate change adaptation. We are seeking information on examples of bylaws, policies and measures for climate change adaptation to protect resource areas. A meeting is scheduled for next week. (3) Cyanobacteria monitoring involves sampling 10 ponds in Brewster, Dennis, Falmouth and Chatham, including four in the MassBays region that feed directly to estuaries (e.g., Stony Brook and Sesuit Creek estuaries). Toxic blooms are a public health concern as well as an indicator of poor water quality and nutrient loading, and can result in pond closure. This monitoring approach will help towns with rapid assessment of water quality. (4) The Cape Cod Commission was awarded funds under 604(b) grant and is seeking a consultant to help develop tools to help towns address MS4 requirements. Towns are also exploring systems management software and PeopleGIS to map systems using tablets. (5) The state legislature approved a new Cape Cod Water Protection Trust, which will fund grants or low-interest loans for municipal wastewater management activities. The Fund will receive monies from a new 2.75% surcharge on short-term rental fees. When combined with the State Revolving Fund, town projects aimed at nutrient reduction may be eligible for loan principle reduction. Towns can decide whether to opt out of the surcharge and forgo benefits of the fund if they choose. *Update: The Governor sent the bill back to the legislature for amendment after adjournment for the year and the bill sits in committee and may or may not move forward this year.*

Urban Harbors Institute: (1) UMass Boston is promoting Green Living and Learning Communities for students housed in the new dorms adjacent to campus; send ideas for activities to Kristin. (2) A report by the NOAA Marine Debris Program for Maine is due shortly.

North and South Rivers Watershed Association: (1) NSRWA finished the spring herring monitoring as well as the horseshoe crab monitoring in Duxbury. Results will be provided to DMF. (2) NSRWA led a citizen science project on saltmarsh health, developing a protocol that is transferable to other communities. (3) The regional coordinator has been working on a project to trap green crabs and is working with the Upper North Shore regional coordinator to identify more uses for green crab such as fertilizer, bait, and culinary. (4) NSRWA has been talking with Newt Tedder (EPA) and with DPWs to file the Notifications of Intent due under the new MS4 permit, as well as develop an education and outreach plans. "WaterSmart" incorporates a school program and other outreach components. (5) Regarding dam removals, the Regional Coordinator is providing technical assistance to Scituate on stream flow, which is an ongoing issue. A DER grant will enable continuation of work on dam removal on the South River.

U.S. Environmental Protection Agency: (1) EPA will take part in the One Cape Summit sponsored by the Cape Cod Commission on August 16-17. (2) Beach monitoring grant awards have been reinstated and events have been held in NH and RI. Pending events in August in MA (Cape Cod). \$200k-\$250k are available to states. (3) Jane Peirce is retained as a consultant with DEP on a temporary basis to work on the NPS program for Massachusetts. An updated approved coastal non-point source management plan is due in September 2019.

MIT Sea Grant: (1) Students are conducting hands on work with industries for their projects over a semester, ideas needed for spring 2019. One project involves working with DMF to ground-truth shellfish bed maps. Students are collecting samples to produce a report for one area that can be shared with other areas. Julie invited management committee members to come forward with ideas for ecological projects for Spring 2019.

Division of Marine Fisheries: (1) DMF and MassBays will train citizen scientists on eelgrass monitoring in DKP in August. (2) Satellite mapping of eelgrass is underway to ground-truthing methods using satellite imagery, in coordination with EPA. (3) Eelgrass seeding tests are conducted for transplanting in Plum Island Sound, to prevent damage by green crabs. (4) A GIS layer of diadromous fish runs is being revised and updated and will be made available for municipalities. It will also inform restoration opportunities as it includes information including spawning areas, passage obstruction, etc.

Massachusetts Water Resources Authority: To mark its 27<sup>th</sup> year of monitoring since the outfall was moved from Boston Harbor to Massachusetts Bay, the SAP is planning a workshop on November 13, 2018. The purpose is to review the existing monitoring program and discuss its relevance, as well as address emerging concerns. An announcement will be made soon. Outreach and education on fish consumption advisories (Chelsea, Everett, etc.) are strongly supported by MWRA.

Merrimack Valley Planning Commission: (1) Proposals for the National Coastal Resilience Fund (Sandy 2.0) are due August 7. MVPC is submitting a proposal in partnership with National Wildlife Federation and Mass Audubon. (2) MVPC has been providing support to municipalities to prepare MVP implementation grant proposals as well as a number of planning grants for the second round of implementation funding. Amesbury and Salisbury are submitting proposals. More inland communities including Andover, Methuen and Boxford will be in the next round of MVPs. (3) DER is submitting a proposal seeking support to communities for culvert replacement projects.

Mass Audubon: Conducting an evaluation of Important Bird Areas on offshore islands on the north shore which provide colonial water bird habitat. This was conducted by the Commonwealth and focused on Kettle Island which has the highest density of nesting egrets in Massachusetts. Some species are doing fine but others – for example the Glossy ibis and Snowy egret populations – are declining. These are species of conservation concern. A report on status of wading bird colonies is being prepared. (2) Shearwaters have been observed in June off Revere Beach. This is typical but it is not known where they nest, probably in Nahant or on Boston Harbor Islands). (3) The In Lieu Fee (ILF) program funded Phragmites control in 2013. A decline was observed through 2015 but 2018 surveys have indicated more than 50% has regrown.

### **Staff Updates: Regional Coordinators**

Regional updates are organized according to the seven action areas of the implementation workplan:

1. Gathering data on conditions and trends (DATA)
2. Reducing stormwater discharge volumes and pollutant loadings (SW)
3. Reducing contamination from wastewater (WW)
4. Adapting to/mitigating impacts of climate change (CC)
5. Removing barriers to streamflow and tidal flushing (SF)
6. Managing invasive species (IS)
7. Conducting education and outreach (E&O)

#### ***Gather data on conditions and trends [DATA]***

- Upper North Shore
  - Marsh Edge Erosion: All 23 sites in Plum Island Sound and Essex Bay were monitored. A few locations had significant erosion as a result of last winter's storms. Other sites did not exhibit as much erosion as one would have expected. New MEE site established at Joppa Flats in Newburyport for Mass Audubon.
  - Eelgrass restoration: Eelgrass was harvested (primarily at selected sites in Gloucester) and planted in April, May and June in three new pilot sites in Plum Island Sound off the southern marsh of Plum Island. Only one planting was performed at the Essex River site (not necessary) which is now fully functioning and expanding on its own.
  - Mussel restoration: In conjunction with DMF, UMass, and MA Oyster Project, criteria are being developed for a mussel restoration in the Great Marsh.
- Lower North Shore
  - Lower North Shore Coastal Acidification Citizen Monitoring: Sampling by citizen scientists is ongoing and Calibration Party will take place in June with Volunteers.
  - Salt Marsh Monitoring for Climate Change Impacts: This monitoring program continues to document storm impacts and marsh deposition. RC collected data at Juniper Cove and SSU salt marshes with Peter Phippen. Peter shared past data for these 2 sites so we write report. SSCW will receive the protocols and continue monitoring on our own.

- Three-Year Monitoring Plan: In February, the Shellfish Sanitary Survey was initiated with monthly fecal coliform water sampling with assistance from Division of Marine Fisheries. Water collection and analysis continuing monthly.
- Salem Harbor Plankton and Nutrient Study: RC assisted is starting to work closely with SSU awarded Mass Bays Healthy Estuary grant, attend scoping and will be involved in the project.
- Metro Boston
  - Progress continues on the Boston Harbor Habitat Atlas: At the end of June 2018, Northeastern University released the beta version of the Boston Harbor Habitat Atlas. This open-source digital education tool presents information about metro Boston area habitats, watersheds, biodiversity, stakeholders, field sites, research, and much more. Over fifty external partners have served as content providers/editors to date, including resource managers, scientists, educators, and others. Over the coming year, it will be piloted with a diverse group of stakeholders for further feedback.
  - Plan for assessment of clam die-off: Coordinated with DMF to develop a plan for assessing clam die-off in Boston Harbor. This is part of an effort to better understand and address causes of the observed die-offs. RC secured letters of support from Winthrop, Quincy, Weymouth, Hull, and Hingham for a proposal for funding and provided support in drafting the proposal. The RC also facilitated the first meeting between the proponent and DMF.
- South Shore
  - Eelgrass loss in Duxbury/Kingston/Plymouth: The regional coordinator assisted with planning and deployment of SeaTrac sampling platform; preparations are underway for a volunteer training on eelgrass monitoring according to a protocol currently being developed.
  - Horseshoe crab spawning surveys in Duxbury Bay: The regional coordinator coordinated horseshoe crab surveys. Data analyses and report will be available.
  - Anadromous fish run monitoring: Participated in Plymouth herring festival, coordinated river herring counts, helped tag herring in Town Brook, set up camera in South River, organized herring data, and reported on long-term trends; the RC completed Gulf River shellfish report
- Cape Cod
  - Herring run monitoring: (1) Herring counts ended in early June and data QA has begun. Count data have been received for Sandwich, Yarmouth, Dennis (2 runs), Brewster, Eastham (2 runs), and Wellfleet in the MassBays area) and for Falmouth, Mashpee (3 runs), Barnstable, Harwich, Yarmouth, and Chatham outside the MassBays area. (2) A draft report summarizing run sizes and spatiotemporal patterns from 2007-2017 has been prepared. Cape Cod Bay runs appear to be about 8 days shorter in duration than the large runs on Nantucket Sound, starting later and ending earlier.
  - Cyanobacteria monitoring: Monitoring is underway at the Mill Ponds in Brewster, Scargo Lake in Dennis, five ponds in Chatham, and there is interest in Falmouth. Two interns are assisting with monitoring and analysis.

***Reduce stormwater discharge volumes and pollutant loadings [SW]***

- Lower North Shore
  - Greenscapes and LID: Wrapping up FY18 and preparing deliverable list for FY19 and MS4 NOIs in September.
  - Implement low impact development: RC assisted City of Salem with a CZM CPR grant for 3 LID BMPs for 2.5 acres of parking lot at Winter Island; Conducted clean ups, weeding of the Commercial Street rain gardens.
  - Adopt-a-Beach Program: SSCW conducted Adopt a Beach Training-in May, training 20 new people; continuing beach, island and marsh clean ups.
  - Clean Beaches and Streams Program: Sampling started in June.
- South Shore
  - Riverwatch: The regional coordinator scheduled training, and sampling.
  - Regional stormwater outreach and management: Worked on organizing MS4 permit outreach, organized list of target outfalls.

- Cape Cod
  - Cape Cod Stormwater Coalition: The group met on 5/23/18 for a DEP training session on the Notice of Intent (NOI) and an update on the Commission's Americorps project to map Bourne's stormwater system. The group met again on 7/11/18 for a presentation on stormwater asset management, to review outreach materials produced by the Statewide Stormwater Coalition, and to plan for reissuing the RFQ for a contractor.
  - Local governance committee (CRC): The CRC met on 1/26/18; topics included an update on Phase II of the Cape Cod Water Resources Restoration Project, County dredge, Cape Cod Stormwater Coalition project, and updates from members. A second CRC meeting is planned for 4/26/18; topics will include an MVP (Municipal Vulnerability Preparedness) grant information session, reports from two Cape Cod towns on their MVP grants, Cape Cod Water Resources Project, County Dredge, Stormwater Coalition, and updates from members.

### ***Adapt to/mitigate impacts of climate change [CC]***

- Upper North Shore
  - ◊ Municipal Vulnerability Preparedness (MVP) planning grants: Development of, and awarding of three MVP Action grants in Newbury, Essex, and Ipswich to: further investigate thin layer placement on the marsh, explore mussel reefs as a living shoreline, and identify the role of marsh vegetation on storm surge and wave mitigation
- Lower North Shore
  - Coastal Resilience: The regional coordinator completed workshops and public listening session, including completed MVP report for Manchester (6/30/18) and Marblehead; The RC wrote LOS for Manchester's CZM CR and MVP grants to restore Sawmill Brook with the removal of the tide gate and reconstruction of the bridge/culvert; Helped facilitate breakout groups at two public meetings for the Beverly's Harbor Waterfront.
- South Shore
  - Vegetation response to sea level rise: North and South Rivers Association established a long-term monitoring of vegetation change in salt marshes. Results were presented data to Scituate Selectmen. The RC participated in Salt Marsh Working Group call, preliminary documentation of vegetation along the North River.
  - Municipal coastal resilience project: Climate workgroup preparation and meeting hosting, attended Cohasset MVP workshops, wrote support letter for Scituate sand nourishment.
- Cape Cod
  - Municipal Vulnerability Preparedness (MVP) planning grants: 10 towns on Cape Cod received \$205,500 in planning grants, including two where the RC assisted with the proposal (Wellfleet and Truro). To date, 12 of the 15 towns on the Cape have received MVP grants.
  - MVP training: two APCC staff (including the RC) have attended or will attend MVP training sessions to become MVP providers.
  - Model conservation bylaw for climate change adaptation for town of Wellfleet: APCC received the notice to proceed last week. This project is funded by a DLTA grant from the Cape Cod Commission.

### ***Barriers to streamflow and tidal flushing (SF)***

- Metro Boston
  - Rumney Marsh Study: The regional coordinator is working with NSF-funded Northeastern team studying tide gate management in Rumney Marsh, helping draft a stakeholder matrix to help inform where consultation is warranted; project team meets 2-3 times a month.
- South Shore
  - Streamflow restoration: The regional coordinator worked with Scituate Water Division to update and clarify flow releases. The regional coordinator assisted Scituate with Dam and Seawall grant, provided data to manage streamflow.

- Third Herring Brook: Interviews, review, and presentation of documentary; brook trout tagging and antenna repair, NOAA reporting, discussed permitting plans at Peterson Pond, river restoration tours at Tack Factory; South River: Veterans Memorial Park feasibility study work, Temple Street hydrology report review and discussion; Town Brook: discussed outreach with NOAA
- Green Harbor tide gate improvements and monitoring: Calculated tides for Daniel Webster survey.

#### Cape Cod

- Restoration Coordination Center (RCC): (1) The Regional Coordinator completed a report on “Preliminary Assessment of the Lower Little Pamet River Valley, Truro” for the town of Truro. Abutter concerns include disappearance of open water and loss of wildlife. We identified possible causes including a tidegate restriction, seawater input, nutrients from farming, spread of Phragmites. (2) The Regional Coordinator met with Town of Dennis and NRCS staff to identify the town’s priority restoration projects and possible projects for the Cape Cod Water Resources Restoration Project Phases 2 and 3. Restoration of the Scargo Lake herring run was highest priority; this is in the Sesuit Creek watershed.

### ***Manage invasive species [IS]***

#### Upper North Shore

- Green crab monitoring of 24 permanent sites in Plum Island Sound and Essex Bay; including 20 volunteers from area nonprofits, schools and New England Aquarium.
- Pepperweed treatments at priority areas in Ipswich and Newburyport, particularly along the rivers which are vectors for seed transport

#### Lower North Shore

- Coastal Habitat Invasive Species Monitoring: Dates being set for summer monitoring; RC is planning for MIMIC program monitoring in summer.
- Pepperweed management program: The RC is planning for pepperweed pulling in June in Marblehead Forest River Conservation, Pickman Park and derby Wharf (NPS) in Salem major efforts. Salem Forest River will be done a school group.

#### South Shore

- Purple loosestrife biocontrol: Climate workgroup preparation and meeting hosting, attended Cohasset MVP workshops, wrote support letter for Scituate sand nourishment
- MIMIC marine invasive species monitoring: Planned for Mini-Rapid Assessment Survey, reviewed new invasives protocol, MIMIC survey training

### ***Conduct education and outreach [E&O]***

#### Upper North Shore

- Workshops attended: NEERS (Portsmouth NH), Green Crab Culinary Summit (Portland, ME)
- Great Marsh product development for Cape Ann Chamber of Commerce for their newsletter and outreach documents.
- Further updates and investigation into the “Pink House” repurposed as a research/office space for an area academic institution

#### Lower North Shore

- Underwater in Salem Sound Lecture Series: Scheduled dates for 2019 with Library: 1/30, 2/27, 3/27, 4/24; another Expedition to Antarctica (impacts of climate change) is being scheduled.
- Swampscott and Danvers passed plastic bag bans, with assistance from SSCW

#### Metro Boston

- Boston Harbor Ecosystem Network: A half-day meetings of BHEN were held (May 3, 2018), and with 25-30 participants. Topics presented included the Boston Harbor dredge project (USACE), Sea Level Affecting Marshes Model (CZM), and metrics for assessing the impacts of oil spills



- (DEP). <https://cos.northeastern.edu/marinescience/outreach/massbays/bhen/>
- Hosted three colleague field trips in the fall and spring, which reached 20-35 people each. The topics/destinations for these include tidal flat ecology and management, restoration and assessment of herring migration on the Mystic River, and environmental justice in Chelsea Creek.
- Data visualization and science communication workshop: From May 16-18, 2018, NU hosted a 2.5 day science communication workshop, which was attended by 40 participants representing NGOs, local/state/federal government, academia, and science education organizations. It was facilitated by UMCES-IAN. Additionally, a data-visualization-themed Science Cafe was offered by UMass Boston in tandem with the event, and attended by 35 people. The workshop was made possible by funds from EPA ORD, DEP, and MassBays.
- South Shore
  - Watershed stewardship certificate program: Planned for and hosted Tidmarsh Teacher Day for NOAA BWET, planned and wrote EPA EE Grant, Cohasset Center for Student Coastal Research summer kickoff
  - Tide gate maintenance and management: Discussed outreach with towns, discussed Tussock Brook tide gate with Jones River Watershed Association
  - Other: Working with journalists webinar, Science Communication Workshop, teaching students from Gates School about estuaries, horseshoe crab presentation, Boston Harbor Habitat Atlas review meeting, discussion with new Scituate wastewater treatment plant operator, green crab trapping planning and field work
- Cape Cod
  - State of the Waters: Cape Cod: APCC received an MET award for \$50,000 to develop report cards and an annual report on the state of Cape Cod's water resources. Work is underway to identify a suitable report card format, evaluation criteria and data sources. The next step will be to convene an Advisory Committee.
  - Technical assistance: The RC participated in the following: Helped the Towns of Wellfleet and Truro with a joint application for an MVP planning grant; Collecting literature on the effects of alum treatment on water bodies (ongoing); Signed onto a Consensus Statement on the value of Thin Layer Placement (TLP) for salt marsh restoration; Participated in WBNERR survey to determine interest in a study of ditch infilling as a means of restoring impacted salt marshes (follows on the TLP project).
  - Interns: Three interns are working on cyanobacteria monitoring, State of the Waters and mapping brackish and salt marsh natural communities.
  - Outreach: Prepared APCC newsletter articles on the MET grant for the State of the Waters: Cape Cod project and the MassBays Regional Service Provider renewal award.

### **Staff Updates: Central Staff**

#### **Executive Director**

##### ***Fundraising & Program Management***

- May 31, participated in a Finance Subcommittee conference call, July 5, met with Subcommittee Chair to draft a report summarizing the Subcommittee's work and recommendations.
- Followed up with respondents to our call for a communications consultant, and finalized a scope of work and contract with Pacer/Strategies to prepare a Strategic Communications Plan.
- Reviewed a draft of Part 1 of the Communications plan, re: identifying MassBays' audiences.
- May 9, convened Regional Coordinators to scope the FFY2018 workplan.
- Participated in scoping meetings with Healthy Estuaries Grant Program recipients.
- June 11, met with Northeastern University Marine Science Center RSP to discuss Regional Coordinator position.
- Provided materials to support Hack for the Sea, which will address MassBays' challenge of designing a user- and eelgrass-friendly boat mooring system (hackforthesea.tech) September 21-23 in Gloucester.

### ***CCMP & Monitoring***

- May 3, participated in a conference call of the Citizen Science Association's Metadata working group.
- May 10, attended a field trip with the Boston Harbor Ecosystem Network to see the Mystic River Watershed Association's video-based herring monitoring system.
- May 16-18, attended the Data Visualization workshop presented by UMaryland's Center for Environmental Science Integrated Application Network (IAN), and hosted by the Metro Boston Regional Service Provider. May 25, participated in a debriefing call about the event.
- May 31, attended the STAC meeting at MIT Sea Grant.
- June 14, reviewed beta version of the Boston Harbor Habitat Atlas prior to release by the Metro Boston RSP.

### ***State collaboration***

- June 20, attended a Regulations Review meeting at DEP in Worcester to learn about proposed revisions to 314 CMR 4.0 (surface water quality standards).
- June 28, participated in a review committee for DEP's 319 grant program (stormwater remediation).

### ***Regional Collaboration***

- May 3-4, Attended a quarterly meeting of the New England Ocean Science Education Collaborative (NEOSEC) Governing Council.
- May 30, participated in a quarterly Board of Directors conference call for NERACOOS (Northeast Regional Association for Coastal and Ocean Observing Systems).
- Participated in two subcommittees planning NEOSEC's 2018 Ocean Literacy Summit (November 16-18 at UMass Boston).

### ***National Estuary Program Coordination***

- Participated in multiple planning calls for the annual Technical Transfer NEP meeting to be hosted by the San Francisco Bay Partnership (NEP) in October.
- June 13, accepted a nomination to be Chair of the Association of National Estuary Programs.
- June 21, participated in a national conference call regarding NEP and ANEP communications goals and strategies.

### ***Staff Scientist***

- **MassBays Healthy Estuaries Grants:** Five projects were awarded funding including: Salem State, Mystic River Watershed Association, Ipswich River Watershed Association, Massachusetts Oyster Program and The Trustees of Reservations. Work will be conducted between now and December 2019.
- **Science and Technical Advisory Committee:** A meeting of STAC was conducted May 31. Northeastern University presented their final work on EDA 2.0 including the categorization of 47 embayments into four types and development of some numerical targets. This was followed by a presentation of initial recommendations prepared by Emily Shumchenia and Prassede Vella on what a Biological Condition Gradient (BCG) framework for MassBays would look like, using initial data from the Northeastern U. team's work. STAC accepted the NU report and approved the next steps proposed for the BCG. STAC asked NU to conduct a sensitivity analysis and explore removing "impairment of bacteria". Next steps include: expanding cluster descriptions for the BCG beyond NU's "narrowed-down" descriptions, compiling and examining historical data, and developing an outreach plan to roll out to stakeholders to help inform definition of Level 1. The communication piece must be well packaged, even if conceptual (e.g. this is how we are using these data to answer specific questions". STAC also strongly recommended conducting a study of flushing/residence time in embayments. This is an important piece of information for setting targets. A smaller group (those who could not make the May meeting) met June 29 during which discussion focused on setting targets. STAC members argued against dropping the "impairment by bacteria" indicator since it is a significant stressor in a number of embayments and is a management priority. A summary of both meetings is underway and will be shared with STAC soon.

- **Research projects:** Developed a proposal for *Assessment of Tidal Flushing/Residence Time to Track Changes in Embayment Condition*. EPA provided supplemental funding to MassBays. RFR will be developed and posting to contract a consultant to conduct the field work and associated modeling. Initial proposal, scope, and RFR documents will be shared with STAC for comments.
- **EDA2.0 and Biological Condition Gradient:** EPA has provided additional funding to support the development of a BCG framework for MassBays with Emily Shumchenia through FY19. A scope has been developed and will be shared with STAC in the coming weeks.
- **Eelgrass mapping in DKP:** Work is continuing on the eelgrass project in DKP. Supplemental, funds provided by EPA in 2017 are being used to support additional mapping (conducted in summer/fall 2017) and experts were convened to discuss proposed citizen monitoring protocols (February 2018). A draft monitoring protocol is currently under review and an associated QAPP is under development to be submitted to EPA for review and approval. Currently the team is planning training of volunteers scheduled to take place in August. In addition, MassBays is working with SeaTrac Systems to conduct real time, continuous water quality monitoring in DKP as part of the effort to identify causes of eelgrass loss in this embayment. The first mission was carried out June 27 and repeated June 29. Data are currently being reviewed and planning is underway to conduct another mission in August.

Meeting adjourned at 12:30 pm.

***Next Management Committee Meeting***

**Wednesday, October 24<sup>th</sup>, 2018**

***Attachment A – Double-click to view slide show***

