



Management Committee Meeting Summary

January 24, 2018

9:30 am – 12:30 pm

Executive Office of Energy and Environmental Affairs

100 Cambridge Street, Room 2B, Boston

Attendees:

Management Committee

Julia Blatt (Massachusetts Rivers Alliance [MassRivers])
Robert Buchsbaum (Salem Sound Coastwatch and Mass Audubon [SSCW])
Todd Callaghan (MA Office of Coastal Zone Management [CZM])
Joe Cosgrove (Merrimack Valley Planning Commission [MVPC])
Harlan Doliner (Marine and Oceanographic Technology Network [MOTN])
Andrew Gottlieb (Association to Preserve Cape Cod [APCC])
Jon Kachmar (The Nature Conservancy [TNC])
Ken Keay (Massachusetts Water Resources Authority [MWRA])
Beth Lambert (MA Division of Ecological Restoration [DER])
Regina Lyons (U.S. Environmental Protection Agency [EPA])
Rebecca Newhall (National Oceanic and Atmospheric Administration [NOAA])
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)
Barbara Warren (SSCW, Lower North Shore Regional Coordinator)
Sara Grady (NSRWA, South Shore Regional Coordinator)
Carole McCauley (NUMSC, Metro Boston Regional Coordinator)
Jo Ann Muramoto (APCC, Cape Cod Regional Coordinator)
Peter Phippen (MVPC, Upper North Shore Regional Coordinator)
Margherita Pryor (EPA Region 1 Program Coordinator)

Welcome and Introductions

Committee Chair Kristin Uiterwyk opened the meeting and welcomed the attendees. After introductions and review of the agenda, the Chair introduced the featured speaker.

Municipal Vulnerability Preparedness Program: Empowering Communities and Informing Statewide Action

Margot Mansfield, Executive Office of Energy and Environmental Affairs

Margot Mansfield gave a [presentation](#) of the [Municipal Vulnerability Preparedness Program](#) developed by EOEEA's Climate Program. In 2017 Governor Baker signed [Executive Order 569](#) which lays out a comprehensive approach to further reduce greenhouse gas emissions, safeguard residents, municipalities and businesses from the impacts of climate change, and build a more resilient Commonwealth. Margot explained that the MVP program is designed to build on existing efforts by the administration to work in partnerships with municipalities. Communities who apply to be a Climate MVP Community will receive technical assistance to complete action-oriented climate change vulnerability assessments that will inform revisions of local plans, future investments, and make these communities eligible to receive priority

consideration state grant programs. She recommended that communities should embark on the assessment process and apply for funding to implement identified priority actions.

Margot explained the stepwise project in detail. Communities who complete the assessments and develop action plans will receive designation as an MVP community, thereby making them eligible to compete for other state grant programs and funding opportunities. In turn, the MVP program will provide state government with a window into the challenges communities face and help frame coordinated statewide efforts and align state programs with the critical challenges facing communities.

Several MassBays communities are participating in the program, and some (*) are already designated MVP communities, include Boston*, Chelsea, Cohasset, Essex, Gloucester, Manchester, Marblehead, Newbury, Newburyport, Peabody, Rockport, Salem*, Sandwich, Swampscott*, Weymouth, and Winthrop. To date, 66 communities have been awarded MVP funds (April 2017) and 288 MVP service providers have undergone training in fall 2017. The first round of MVP communities will complete the process by June 2018. A second round of funding for planning (for new MVP communities) and implementation (for MVP designees) is anticipated for late spring of this year. EEA is making several resources available including an interactive climate change clearinghouse website (Resilient MA) that will serve as a curated repository for resources, provide an Arc GIS On Line viewer of MVP municipalities and related information, and provides climate projections for MVP designated communities. Phase 1 of the website including the viewer is anticipated to be available in March.

Discussion

- Committee members asked whether the updated drought management plan will be integrated into the MVP and Margot indicated that some of the indicators are common between the two different plans but will provide additional information.
- In answer to committee members' questions, Margot indicated that the ResilientMA website will provide brief narratives on several climate change indicators (change in precipitation, temperature changes, sea level rise, and extreme weather events). In addition, the draft risk assessment which is currently for review has graphics showing some indication of how these drivers will affect communities.
- Existing grants including those awarded by MEMA, FEMA, coastal resilience, and others will all be consider MVP designation as a review criterion. Some committee members suggested that just as certain work to implement climate change resilience strategies (e.g. engineering) has served to reduce flood insurance within certain communities, an MVP designation may also be included in the community rating system.
- Margot indicated that additional tide gauges will be installed in various municipalities for sea level rise projections. Guidance will be provided in the form of CZM's updated sea level rise guidance document expected this spring.
- Some committee members expressed concern that with changes in municipal staff it may be challenging to keep the MVP designation and plan implementation process going. To make sure that this process is continued, towns need to obtain buy-in and establishes a core team that will ensure that the communities is engaged. Success in obtaining implementation funding will serve to keep the momentum moving forward.

**Program Evaluation Findings:
Development process, Management Committee Response**
*Pam DiBona, MassBays
Margherita Pryor, EPA Region 1*

Margherita Pryor provided a brief background of the [program evaluation](#) process - its history and purpose. MassBays submitted an evaluation package and hosted an EPA site visit in 2017; EPA's findings based on those materials highlight success and challenges (which require action prior to the next PE, scheduled for 2022).

Margherita described some of the findings including: 1) MassBays needs more online visibility, a prominent place to announce and share its accomplishments, publications etc; 2) coastal monitoring is very dependent on watershed groups and MassBays harbors a very strong citizen engagement process; and 3) the Science and Technical Advisory Committee is made up of experts who are very engaged in the work of MassBays. The CCMP is due at the end of 2018 and should include short descriptions of finance, monitoring, and communications plans which in turn are due by 2020.

The main challenges for the next program evaluation are to address:

1) Outreach and communication

MassBays needs a website that share its accomplishments, publications, etc. in an easy-to find way. A communications plan is needed that will explore MassBays capabilities to speak to their stakeholders through a robust website. The feasibility of social media (possibly even through the regional coordinators) needs to be explored.

2) Annual reporting

Margherita explained that the accomplishments and challenges section of the work plan could be used to provide an annual report and a public friendly version be posted on the website, describing that is happening in the MassBays program. As an example, each year one of the regions could be highlighted and all pulled together every 5 years. Suggestions included using Arc GIS On Line, videos interviewing people to share lessons learned.

3) Climate change

MVP designated municipalities is one big factor. It was suggested that a checklist of climate change factors would help keep track of actions taken, including all work in implementing climate change resilience e.g. habitat restoration will increase habitat value, making it still valuable in the future.

4) Program recognition

Regional coordinators are encouraged to emphasize the support they receive from MassBays and their role should be clear on the website. The deliverables tied to their scope of work could be highlighted as part of the accomplishments on the website.

Discussion

Committee members expressed their satisfaction and support of the program accomplishments, recognizing that the evaluation was very positive and that the item that needs to be addressed is communication and visibility. In response to Pam's ask, the Management Committee agreed to focus on the needs identified by the letter and be able to respond for the next program evaluation.

Margherita also pointed out that under Clean Water Act §320, NEPs can conduct a consistency review for any federal activity that may impact an NEP's ability to implement its CCMP or address actions. MassBays has not taken on this role, as the CZM Act also has federal consistency review and staff are assigned to that. The Committee suggested that MassBays could be on the list of internal CZM reviewers for proposed projects in the MassBays planning area.

Financial Subcommittee Update

Colin Van Dyke, Financial Subcommittee Chair

Colin Van Dyke provided a status report on discussions within the finance subcommittee on opportunities to increase resources to support MassBays activities (the subcommittee's Charter was approved by the Management Committee in October 2017). Additional funding would support CCMP implementation, and perhaps increase MassBays' funding for work in the regions. The goal of the committee is to identify cash and in-kind support and to identify which CCMP activities may benefit from funding other than section 320 funding. A priority consideration is not to decrease funding for the regional service providers which are a vital part of MassBays. He concluded by saying that follow up calls will be scheduled to continue the conversation.

Management Committee Member Updates

The Nature Conservancy: TNC has been working closely with DMF on the Boston Harbor reef. The project is in the design and setting up for pre-application (\$130k). (2) TNC hired a coastal resilience specialist (Eric Roberts). (3) A replacement for Jon Kachmar as the TNC representative on the MassBays Management Committee will be named presently.

NOAA: (1) Climate adaptation training is scheduled to take place in March in Main. (2) A marine debris coordinator has come on board with NOAA and is also serving as the GOMC co-chair for the Marine Debris Initiative. (3) A sea level rise viewer together with tutorial is the newest resilience tool to be added to digital coast.

Mass Audubon: The 2017 State of the Birds Report is online: [Massachusetts Birds and Our Changing Climate](#).

Massachusetts Water Resources Authority: (1) In fall 2017 MWRA wrapped up a summary of bacterial conditions that covers over 20 years of data. The overall finding is a remarkable improvement in water quality. (2) MWRA in collaboration with EPA and DEP will have a steering committee meeting on 2/8/2018 - the meeting will be devoted to findings of monitoring of sediment, water and flounder.

Massachusetts Division of Ecological Restoration: (1) Beth Lambert is the new Director for DER, replacing Tim Purinton. The post of habitat restoration program manager will be posted shortly. DER will also be having meetings with members of the Management Committee to learn more about habitat restoration status and needs. (2) A [pre-RFR notice](#) for municipalities culvert replacement grant is issued. RFR will be published in March/April for contracts to start in July 2018. The fixing of culverts has environmental and public safety benefits. A minimum of \$600k is available. Funds are not eligible for tidal restrictions, funds are for freshwater culverts. (3) A position has been posted for a culverts restoration person to work with DPW to undertake culvert assessment. (4) All restoration projects on the North Shore are still ongoing. There is a lot of on-the-ground work underway and new projects may be initiated this summer. (5) DER is exploring the feasibility of developing a programmatic approach to cranberry bog restoration including funds, staff, research agenda, etc.

Urban Harbors Institute: (1) Kristin Uiterwyk is the new Director of Urban Harbors Institute which has now been incorporated into the School for Environment at UMass Boston. Jack Wiggin will be staying as faculty with UMass Boston.

North and South Rivers Watershed Association: (1) NSRWA worked with DER in Hanover to remove the 3rd dam on 3rd Herring Brook. Sediment results came clear and partners are looking for funds to remove the final dam on the river. (2) Scituate has funding to help increase reservoir water supply (First Herring Brook on North River). This is the culmination of more than 10 years' work to get herring into the upper part of the river and increase resilience of water supply to communities by 30 days. These steps will also improve fish passage. Permit and design will be the focus of the next 2 years (\$200k Dam and Seawall Grant). (3) NSRWA is working with the town of Marshfield to implement a ban on the use of plastic bags. (4) NSRWA is hosting a legislative breakfast on 4/12/2018 that will be focused on the southeast Massachusetts communities.

Merrimack Valley planning Commission: (1) An emergency preparedness meeting was held and there was good response. (2) In January DEP awarded MS4 technical assistance grants to be used by June 2018. The \$200k are dedicated to outreach and education on compliance and permit requirements. A meeting is being held in February.

U.S. Environmental Protection Agency: (1) New Regional Administrator Alexandra Dunn was appointed on 11/16/2017 and taken up the post officially on 1/8/2018. She is a native of Massachusetts and is familiar working with state organizations.

MA Office of Coastal Zone Management: An meeting of the Ocean Advisory Commission is scheduled for 1/30/2018.

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
 - Eelgrass restoration: Eelgrass from UNH Jackson Laboratory was transplanted at the restoration site in Ipswich on Plum Island. This site is being evaluated for potential full restoration similar to the site in Essex Bay. Other sites were assessed for potential planting including a site at the confluence of Fox Creek in the mouth of Ipswich River.
 - Salt marsh monitoring: End of growing season monitoring of the ditch plug removal Thin Layer Deposition (TLD) site was completed. This site is being assessed for the impact of ditch maintenance - spoils were removed and spread on the marsh platform. The draft report of experimental Great Marsh TLD sites by UNH was reviewed.
- Lower North Shore
 - Salem Harbor Plankton and Nutrient Study: The pilot study sampling by Salem State University (SSU) is completed and analysis is in the works. According to David Borkman (URI) on 9/17/2017 a bloom of *Karenia mikimotoi*, an athecate dinoflagellate associated with fish and benthic invertebrate kills was detected. Dave wrote that there "was a shellfish die-off in the harbor at Portland, Maine due to this species during late Aug-early Sept. 2017. Concentration of *Karenia* at station E was relatively high (864,000 cells per liter) to potentially cause problems - so something to keep an eye on." Station E is off Forest River Park - shallow, inner Salem harbor.
 - Lower North Shore Coastal Acidification Citizen Monitoring: SSCW conducted sampling weather permitting. An Acidic Waters story map was completed and is online at <http://salemsound.org/researchResources.html>.
 - Three-Year Monitoring Plan: The RC is currently researching the possibility of opening shellfish beds in Manchester and working with DMF on monitoring requirements and associated protocols. We will be conducting a preliminary shellfish sanitary survey at the end of January, weather permitting. Initial focus is on three areas: Grey Beach, Black Beach and Chubb Creek. If the initial survey seems promising, monitoring will continue and DMF will process the water samples.
- Metro Boston
 - Boston Harbor Habitat Atlas: The Contract secured and work started with ESRI on development of new platform. Species lists and map data for 8 habitats secured after stakeholder vetting; content for 4 (of 8) watersheds developed and vetted; fifth of 8 virtual tours filmed; assets

- populated in 3 virtual tours (4 are now completed). The Atlas review committee was convened on 11/20, some key decisions informing content development were made. A second graduate student is being recruited to help with content development
- Mystic River Watershed: RC participated in Mystic River Watershed Steering Committee meeting on 11/30 and its planning group on 11/9 and held discussions with stakeholders about assessing restoration potential in the Lower Mystic and in Fort Point Channel.
 - South Shore
 - Shellfish Restoration: RC organized and analyzed data from Gulf River shellfish surveys. RC planned mussel surveys.
 - Horseshoe crab spawning surveys in Duxbury Bay: RC presented a lecture on horseshoe crabs at Northeastern University Marine Science Center.
 - Cape Cod
 - River Herring Network annual meeting, 11/2/17: 67 people attended this meeting. Presentations included comparison of herring count methods (visual counts, electronic and video counters, sonar), regional trends in populations, management, monitoring, etc. Visual counts are recommended over electronic counters. Statewide, herring populations remain depleted to near historic lows with some possible improvements here and there. DMF thanked APCC for our volunteer herring count program and intern project to monitor juvenile herring. Jo Ann provided copies of the 2007-2017 Cape Cod Herring Run Summary which is posted on our website.
 - Cyanobacteria monitoring: APCC received a \$15K grant from a private foundation to conduct cyanobacteria monitoring. The RC prepared the proposal. The grant will enable APCC to purchase equipment and monitor several ponds. Monitoring in 2017 documented a cyanobacteria bloom in one pond severe enough that state officials closed the pond to public use. APCC plans to hire a summer intern to assist. Planning for the 2018 monitoring season is underway with EPA and other groups.
 - MET grant proposal for “State of the Waters: Cape Cod”: APCC submitted a proposal to MET to fund a 2-year program to assess and prepare report cards on the state of all of Cape Cod’s water resources (coastal, freshwater, groundwater, drinking water). The goal is to raise public awareness of water issues and to spur action to improve and restore water resources. Many letters of support were received from towns, agencies and organizations.

Reduce stormwater discharge volumes and pollutant loadings [SW]

- Metro Boston
 - RC hosted tech transfer presentation by Amy Schofield of Boston Water & Sewer Commission at Boston Harbor Ecosystem Network meeting on 11/2; topic was BWSC’s efforts to identify illicit discharges using DNA analyses.
 - Lower Neponset: The RC attended briefing with EPA on 11/29 on process for potential listing of lower Neponset as superfund site; the RC also attended and spoke briefly (see above) at lower Neponset community meeting about water quality and public access issues in the Hyde Park/Mattapan stretch of the river
 - Assisted with submission of two proposals (MET & Healthy Estuaries) to investigate softshell clam mortality in Boston Harbor with DMF, local shellfish officers
- Cape Cod
 - Cape Cod Stormwater Coalition: APCC, the Commission, the Cape Cod Stormwater Managers Group, the CRC and the County are partnering on a project funded by a 604b grant to the Cape Cod Commission to identify options for forming a Cape Cod Stormwater Coalition and for cost-effective and environmentally effective stormwater management. Work included a survey of municipal stormwater managers’ resources and needs, compiling survey responses and needs, preparing a summary of stormwater utilities, and meetings. The Commission is preparing a draft MOU for forming a coalition and a draft SOW for hiring a consultant to conduct a needs assessment, tools, financing options and recommendations. All seven MS4 communities on Cape Cod Bay plus three other MS4 communities are participating. The RC assisted in preparing the 604b proposal.

- Brewster 319 grant: Brewster was awarded a 319 grant for \$105K for stormwater mitigation and tidal restoration at Crosby Landing. The grant will enable the Town to complete planning, install stormwater mitigation, and improve tidal flow to restore salt marsh. This area is within the Inner Cape Cod Bay ACEC and contains many valuable resources. The RC assisted in preparing the proposal.

Reduce contamination from wastewater [WW]

- Lower North Shore
 - Clean Beaches and Streams Program: The [2017 Bacterial Water Sampling report](#) is completed and available online. This year for the first time only Manchester's Wolf Trap marsh sites were hotspots defined the Geometric Mean for ONLY DRY weather sampling (n=4) for Enterococcus > 1000 CFU/100mL. Salem has an excellent IDDE process and outfalls that have been hotspots for the past decade or more were not on the 2017 list. In Marblehead, one offending outfall was remediated quickly during the summer when high counts were reported for June and beginning of July. SSCW spoke with the Marblehead Water and Sewer Department suggesting an investigation of the outfall's watershed. They cleaned the catch basins during the summer and found raccoons living in one of them. Dog waste bags in the catch basins is another neighborhood problem. Salem Sound Coastwatch continues to work with all our communities, particularly Marblehead and Beverly, with public education and monitoring.

Adapt to/mitigate impacts of climate change [CC]

- Upper North Shore
 - Hurricane Sandy grant projects update: Preliminary report development of work completed under the three-year Hurricane Sandy effort was begun. For MassBays this includes Hydrodynamic Modeling of the Plum Island marsh, Erosion Modeling of Plum Island beaches, Invasive Pepperweed Management, Invasive Phragmites Management, Eelgrass Restoration, and Invasive Green Crab Management. The RC is working to secure funding to continue several of these programs in 2018.
- Lower North Shore
 - Municipal Vulnerability Preparedness: Salem Sound Coastwatch was selected to be the primary MVP provider for Manchester-by-the-Sea, with Tighe & Bond providing mapping assistance.
- Metro Boston
 - Hosted tech transfer presentation by Paul Kirshen, Bob Chen, Kim Starbuck, and Jack Wiggin of UMass Boston at Boston Harbor Ecosystem Network meeting on 11/2 to; topic was the draft Boston Harbor protection feasibility study findings
 - Gathered significant feedback from colleagues (EPA, Mass Audubon, TNC, and others) related to municipal engagement in climate resilience education; this morphed into an all-MassBays proposal to the NOAA ELG program
 - The RC participated in several outreach events: MAPC Metro Mayor's Climate Task Force meeting on 12/12; met with Boston Harbor Now policy and planning staff to discuss collaboration on 12/6; and met with NEAq on 12/9 to discuss support for their NOAA ELG project to work with Hull, Chelsea, and Lynn on climate resilience education.
- South Shore
 - Vegetation response to sea level rise: Worked with Salt Marsh Sentinels to collect data, took pontoon boat ride to document extent of marsh grasses, discussed potential for drone mapping project with Jones River Watershed Association.
 - Attended CZM Coastal Manual Workshop, discussed municipal roundtables with MAPC

- Cape Cod
 - NERRS pilot project to test thin-layer-deposition for salt marsh restoration: A group of nine NERRs (including WBNERR and Narragansett Bay NERR) received a NOAA grant to conduct a pilot test of thin layer deposition to restore salt marsh. APCC is an identified potential end-user for salt marsh restoration. An initial conference call was held. Most NERRs are using local dredged material for their tests.

Remove barriers to streamflow and tidal flushing [SF]

- Metro Boston
 - RC liaised with EPA and others about streamflow concerns at Ballard Street/Rumney Marsh
- South Shore
 - Flow monitoring: Discussions with DER are ongoing on flow monitoring and the town of Norwell's water withdrawal permit. The RC participated in the permit review and provided comments.
 - Dam removals and stream continuity: (1) Bound Brook: reviewed and discussed as-builts; (2) Third Herring Brook – RC coordinated herbicide treatment at Mill Pond, worked on PIT tagging antennas, conducted monitoring of vegetation at Tack Factory, coordinated consultant work at Peterson Pond, and helped with outreach video; (3) South River – The RC conducted river cleanups, assisted with Temple Street hydrology study bid and kickoff.
- Cape Cod
 - Implement coastal habitat restoration and protection projects: (1) Site visit to potential restoration projects for CCWRRP Phase II: In the event that federal funding becomes available for Phase II of the Cape Cod Water Resources Restoration Project (CCWRRP), staff from APCC and NRCS attended site visits to potential restoration sites on Cape Cod. These included fish runs, salt marshes and stormwater remediation sites; (2) APCC's three summer interns worked on projects that will support monitoring and restoration, including salt marsh monitoring, testing cyanobacteria monitoring methods, video monitoring of juvenile herring, mapping natural communities, and outreach.

Manage invasive species [IS]

- Upper North Shore
 - Green Crab Population Monitoring: Green crab monitoring (24 sites) was conducted in October, with record high numbers for the period since the program was established. RC worked with local Senators and representatives on funding for green crab management. The status of green crab culinary program was presented to the Ipswich Shellfish Advisory Board.
- Lower North Shore
 - Pepperweed Eradication: Pepperweed pulling was conducted in August in Marblehead Forest River Conservation, Collins Cove and Pickman Park in Salem. 12 volunteers participated.
 - Coastal Habitat Invasive Species Monitoring: Monitoring 8 sites across the Sound completed monthly June – August. Data were submitted to CZM for inclusion in the database and will be available on MORIS.
- South Shore
 - Purple loosestrife biocontrol: Analyzed purple loosestrife data from Mill Pond and submitted report and Certificates of Compliance

Conduct education and outreach [E&O]

- Upper North Shore
 - Great Marsh Symposium: The 5th annual Great Marsh Symposium on Sea Level Rise was held in November. The focus of the symposium was to roll out the Community Vulnerability Plans developed as part of the Hurricane Sandy grant. It was well received and there was good attendance from the six core Great Marsh communities as well as other local stakeholders. This is

- the last in the series of Sea Level Rise symposiums as the Great Marsh Coalition will choose another topic to promote.
- “Keeping Water Clean”: These workshops, a component of the North Shore Greenscapes Coalition, were held in several area elementary schools to teach 5th graders about their watershed address, groundwater, wastewater treatment (both WWTP and septic systems) and stormwater. Participating communities receiving the workshop on the upper north shore included Gloucester, Essex, West Newbury, Merrimac, Rowley, and Salisbury.
 - Great Marsh Partnership: The Great Marsh Partnership developed a website promoting the restoration and research projects in the Great Marsh. The purpose of the nonprofit (in-the-works) is to solicit funding from foundations, corporations, and private individuals. The Partnership is seeking funds that are generally not available to government entities, academic institutions, and individuals which comprise the Partnership (www.greatmarshpartnership.com)
 - Conferences attended and presentations given: Association of National Estuary Programs, Parker, Ipswich Essex River Restoration annual meeting, Coastal and Estuarine Research Federation, Mayors and Managers Stormwater Conference, Annual Coastal Science Conference, New England Grows, Municipal Vulnerability Planning, Newburyport Vulnerability Workshop
- Lower North Shore
 - The RC conducted presentations to Beverly City Council; winter waterfowl viewing event (40); 5 week course "Our Rivers and Ocean" (20) and guest speaker at Salem Common Neighborhood Assoc. annual meeting
 - Metro Boston
 - Boston Harbor Ecosystem Network: Meeting held on 11/2 attended by 27 people (see SWW and CC above); Tidal flat colleague field trip on 10/11 attended by 23 people; Steering Committee met on 10/5 and 12/7, governance document advanced to near-final draft form; 3 new members joined the steering committee that started in January 2018
 - Public events: MSC Open House showcased local environmental research to 898 attendees and 160 volunteers/students/staff/faculty; Public lectures held in October (Sara Grady – horseshoe crabs on 10/17 attended by 36; Amy Mueller – trace metal sampling in coastal waters on 11/14 attended by 14)
 - Other events: NU presentation on eelgrass monitoring to ANEP attendees on 11/3; Facilitated Boston Harbor waterfront tour for ANEP attendees on 11/4; Presented on MassBays model at CERF conference on 11/6
 - Cape Cod
 - Barnstable County Coastal Resources Committee (CRC): The CRC will be meeting tomorrow, following a hiatus to work on the Cape Cod Stormwater Coalition project. Topics will include updates on the Cape Cod Water Resources Restoration Project, County dredge program, work to form a Cape Cod Stormwater Coalition, and reports from towns on their coastal projects, issues and needs. The County Commissioners may be considering re-organizing the committee as part of an overall reorganization of standing County committees. The CRC is not funded by the County and its work is supported by MassBays and APCC.
 - Restoration
 - 5th Cape Coastal Conference, 12/5/17 – 12/6/17: This annual conference was hosted by WBNERR with assistance from a planning committee comprising APCC, MassBays, CZM, WHOI Sea Grant, Cape Cod Cooperative Extension, Cape Cod Chamber of Commerce, Center for Coastal Studies, and CZM. Topics covered coastal resilience, restoration, adaptation and economics. The RC gave a presentation on opportunities for salt marsh migration as sea level rises.
 - Restoration Coordination Center: After providing a list of 16 priority projects, APCC continues to coordinate with the NRCS regarding the Cape Cod Water Resources Restoration Project (CCWRRP). The NRCS began contacting towns to scope projects and initiate contracting. The RCC will also continue work on the Sesuit Creek assessment of slow salt marsh recovery following restoration, funded by DER. Activities include replanting salt marsh vegetation in the barren area.

- **Technical Assistance:** The RC prepared three pre-proposals, two of which were for MassBays communities (Eastham, Wellfleet) and the third for APCC. The Town of Wellfleet's Mayo Creek Restoration Committee proposed to conduct pre-restoration monitoring of aquatic habitat along Mayo Creek. The Town of Eastham proposed to remediate stormwater discharges into Herring Brook. APCC proposed to conduct follow-up monitoring of restored salt marshes and compare with previously salt marsh monitoring data in order to describe the state of Cape Cod Bay salt marshes.

Staff Updates: Central Staff

Executive Director

- Meetings and conferences
 - Hosted the National Estuary Program Technical Transfer Meeting November 2 to 5; programming included an Association of National Estuary Programs (ANEP) Board meeting (hosted by Colin Van Dyke), a Women of NEP breakfast (hosted by Jon Kachmar), two days of workshops (hosted by EPA Region 1), a Science Café (with presentations by DMF, SSCW, and Northeastern MSC), and field trips hosted by Boston Harbor Now!, Buzzards Bay NEP, and North and South Rivers Watershed Association.
 - Participated in the biannual meeting (November 9) and Strategic Planning Retreat (January 11) of the New England Ocean Science Education Collaborative. The latter was focused on scoping out a case study about the Collaborative to be included in a new textbook on collaboration theory and practice.
 - Attended the final in a series of workshops hosted by DEP to develop a watershed planning process (November 29).
 - Attended the NERACOOS Board of Directors meeting on December 6, and facilitated a series of breakout sessions during their Annual Meeting on December 7. Connected with SeaTrac in reference to their "ship of opportunity" offered through NERACOOS (see Staff Scientists' Research Projects).
 - Attended the Piscataqua Region Estuary Program (NEP) State of the Estuaries event December 8, and took lots of notes on their format and content!
 - Continued to meet with DEP and EPA regarding development of a Master QAPP that will form the basis for citizen monitoring groups' own data quality assurance planning.
 - Finalized tide gate inventory findings and recommendations. Hosted a meeting of the CZM and MassBays Regional Coordinators to share the findings of the tide gate inventory funded by NOAA. The RCs scoped out the education needs of their regions' municipalities, and developed a list of resources they will need to conduct one-on-one meetings with municipal staff regarding tide gate management.
 - Participated in planning meetings for the annual Spring NEP meeting to be held at EPA Headquarters in Washington DC (March 13-15).
- Operations & Management
 - Updated the scope and posted the Healthy Estuaries Grant Program Request for Responses. Participated on review committee.
 - Participated in the Finance Committee conference call January 16th.
- Funding
 - Scoped out two potential proposals under NOAA's Project of Special Merit program: one to conduct modeling to predict freshwater impacts on estuarine systems with increasing/more severe precipitation (deemed not ready, based on background research). The second would support a survey of recreational fishers to learn not only when they fish and what they catch, but where they are fishing. Neither were submitted.
 - Submitted a pre-proposal to NOAA (December 19) under their Environmental Literacy Grant program. The project would provide additional funding to Regional Service Providers to increase ocean literacy among community members, with the goal of increasing residents openness to municipal resilience activities. Full proposals will be requested in February.
 - Finalized a full proposal to EPA (due January 26) under their Exchange Network program. The project builds on several aspects of our citizen monitoring network support, and implements our CCMP. We requested \$200,000 to fund development of an online wizard-like application to help citizen groups develop quality assurance project plans, a template to facilitate data upload to

EPA's WQX database, and an online State of the Bays report card (see samples at ecoreportcard.org). Funding was also requested for a part-time Circuit Rider to provide hands-on assistance to groups conducting coastal monitoring. Awards will be announced in July.

Staff Scientist

- Science and Technology Advisory Subcommittee (STAC)
 - The next STAC meeting will be sometime in late March. We are currently waiting to wrap up/proceed with a few things and will be circling back with STAC at the next meeting and in preparation for the April management committee meeting.
- EDA 2.0
 - Northeastern is finalizing the report and are planning to send us an almost final draft for comments. We will share this with STAC and provide comments for the final piece. We will then start moving ahead with the BCG with EPA and Emily Shumchenia as that scope will be finalized as well.

Research projects

- Coastal Acidification Project: MassBays continues to track UMass Boston's work to construct a coastal acidification observing system. The plan is to deploy the system as soon as possible (lab testing should be underway). Matt (EPA) and I will be visiting the lab in February to discuss progress and next steps.
- NOAA funding: MassBays and UMass Boston have jointly submitted a proposal for funding from Sea Grant to expand the coastal acidification program. Our proposal was accepted, with some modifications, and that project should start in the coming months.
- Eelgrass mapping in DKP: MassBays is moving forward its work with DMF on a second round of eelgrass mapping in DKP and the development of a rapid assessment protocol that will be applied by citizen scientists as part of the process to identify the reason for eelgrass loss in this embayment, particularly in Duxbury Bay. DMF collected the data in August/September and are in the process of doing analyses. Sara is coordinating the stakeholder/citizen scientist piece and is hosting a workshop in Kingston on Wednesday, 1/31 at 12:30 pm.
- SeaTrac: MassBays submitted a proposal to NERACOOS for time to help test an unmanned vessel (SeaTrac) that can hold sensors to survey water quality and related parameters. Scoping is still in process (we are hoping that NERACOOS will provide us with all the sensors we asked for!) and the plan is to deploy the vessel in DKP and collect data that may be helpful for the eelgrass study.
- Grants
 - Healthy Estuaries Grant FY18: 20 proposals were submitted by the deadline on 1/16/2018. The committee met on Monday to review the proposals. We are currently working on the scores and plan to send out invitations for full proposals on Friday 1/26.

The meeting adjourned at 12:40 PM.

Next Management Committee Meeting

Wednesday, April 25th, 2018