Check out the Ecohealth Tracking Tool Peek at our plans for 2022-2023

Summer-Fall 2022 (Vol 20, No2) View this email in your browser



Photo of Derby Wharf light in Salem courtesy of J.Berk (Twitter: @berkie1)

Plans for 2022-2023

In the coming year we are fortunate to have two grants from the Environmental Protection Agency, with thanks to Congress for appropriations to the National Estuary Program. Each of the 28 National Estuary Programs, including MassBays and our sister Massachusetts NEP in Buzzards Bay, will receive funding not only under Section 320 of the Federal Clean Water Act, but also from the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law, or BIL). You'll find our proposed plans for that work on our <u>website</u> under "Annual Work Plan."

With these workplans, MassBays will become a Center in the School for the Environment at the University of Massachusetts Boston, a new hosting situation which will allow MassBays to diversify its funding and expand engagement in the public sphere. We will miss working alongside our colleagues at the Office of Coastal Zone Management but are gratified to know that our long-time partnership with the fantastic team at CZM will continue long after we are no longer sharing an office!

Comparing methods

In collaboration with the Office of Coastal Zone Management and with funding from NOAA, MassBays is conducting a multifaceted project, <u>mapping</u>

Year in Review

Results of our work across Ipswich Bay, Massachusetts Bay, and Cape Cod Bay between July 1 2021 and June 30, 2022

What's happening in my embayment? This is a question MassBays has been working to answer for several years, documenting conditions and trends in the <u>47 estuaries</u> from Salisbury to Provincetown. Working with EPA's Office of Research and Development and our own Science and Technical Advisory Subcommittee, and based on historic and current conditions, MassBays has set out goals for extent and health for eelgrass, salt marshes, and tidal flats. You'll find it all in our new <u>Ecohealth Tracking Tool</u>, along with water quality data that have been vetted through EPA's Water Quality Portal.

Long-term monitoring is key. The MassBays team presented a session at the Massachusetts Association of Conservation Commissions' Annual Meeting in February, sharing case studies demonstrating the <u>importance of long-term monitoring</u> for habitat restoration projects.

MassBays convened experts for a <u>forum</u> to discuss seasonal low-dissolved oxygen conditions in Cape Cod Bay that have resulted in caged lobster mortalities. The group generated recommendations for consideration by decision makers.

Kudos to volunteers! MassBays' <u>Regional Coordinators</u> engaged volunteers across the region to count migrating <u>herring</u>, map and monitor <u>eelgrass</u> and <u>salt marshes</u>, manage <u>invasive species</u>, and <u>track water quality</u> at beaches and in streams. The data are used by multiple government agencies, including the Division of Marine Fisheries, Office of Coastal Zone Management, the Department of Environmental Protection, and local departments responsible for water management.

In 2021, the following **Healthy Estuaries Grant Program** projects were completed (a new round will be announced this winter):

- Relaunch of water quality and bacteria monitoring in the <u>Merrimack River</u>. (Merrimack River Watershed Council, \$22,532)
- Research to determine the impacts of floats on eelgrass and inform design standards for docks and piers. (Salem Sound Coastwatch, \$15,000)
- Environmental inventory of <u>Belle Isle Marsh</u>, Boston's last significant remaining salt marsh, the first step toward comprehensive management. (Mystic River Watershed Association, \$30,000)
- <u>Characterization of coastal acidification</u> in Cape Cod Bay, to assess its importance as an environmental stressor. (Center for Coastal Studies, \$28,083).

You can find more details about out 2021-2022 activities in our <u>Annual Work plan</u>.

<u>eelgrass</u> using drones, satellites, aerial photography, sonar, and divers. This <u>Story Map</u> includes details about the project and shows the field team in action.



From the wrack (nutritious tidbits)

GIS contractor needed. APCC is seeking a contractor to assist with projects including the State of the Waters: Cape Cod, Cyanobacteria Monitoring Program, Restoration Coordination Center, and others

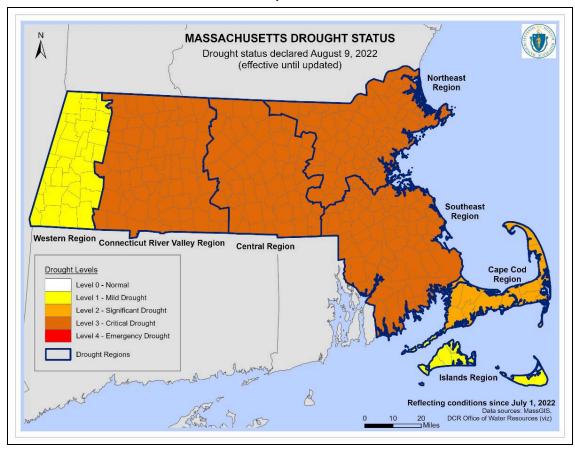
Report seagrass sightings with iSeaGrass. You can help MassBays and the Division of Marine Fisheries monitor the extent and condition of this important habitat.



Cyanobacteria bloom in Scargo Lake, Dennis. Photo: APCC

Tracking Toxic Blooms

Across the Cape's 15 towns, the Association of Cape Cod (APCC) has been conducting biweekly monitoring in nearly 120 ponds for cyanobacteria -- a group of photosynthetic microorganisms that can present health problems for humans and animals. This year APCC worked with health agents and the Massachusetts Department of Public Health to develop clear descriptions of risk from cyanobacteria exposure to share with the public and decision makers via their map viewer. In addition to APCC's monitoring to document cyanobacteria presence and types, toxin testing by the Barnstable County Department of Health and the Environment provides an additional assessment of health risk. Find the map, explore the risks, and sign up for alerts on APCC's website at https://apcc.org/our-work/science/community-science/cyanobacteria/.



Drought conditions continue across Massachusetts

A message from the Executive Office of Energy and Environmental Affairs

Massachusetts continues to experience drought conditions throughout the entirety of the state. Most recently, Energy and Environmental Affairs (EEA) Secretary Beth Card declared a Level 3-Critical Drought in the Northeast, Central, Connecticut River Valley, and Southeast Regions, a Level 2-Significant Drought for the Cape Cod Region, and a Level 1-Mild Drought for the Islands and Western Regions. The drought has caused impacts on habitat and rivers, such as diminished streams and dry streambeds, ponding in streams, decreased stream water quality, and increased algal growth. It is also starting to impact other sectors like agriculture and water supply. The state continues to conduct detailed monitoring of drought conditions, is in close coordination with state and federal agencies, and is providing technical outreach and assistance to affected municipalities. Importantly, it is critical that everyone administers water conservation practices and takes extra precautions when using BBQs, campfires, and other open flames when outside to ensure water resources are available for essential needs, such as drinking water and fire protection. For more information and water conservation tips, please visit EEA's Drought Management Task Force webpage, and for more detailed water conservation resources, visit www.mass.gov/conservemawater.

Regional Coordinators & Staff

Upper North Shore:

Peter Phippen, Merrimack Valley Planning Commission

Lower North Shore:

Barbara Warren, Salem Sound Coastwatch

Metropolitan Boston:

<u>Jon Grabowski</u>, <u>Northeastern University Marine Science Center</u>

South Shore:

 $\underline{Sara\ Grady}, \underline{North\ and\ South\ Rivers\ Watershed\ Association}$

Cape Cod:

Jo Ann Muramoto, Association to Preserve Cape Cod

Boston-based staff: Pam DiBona, Director Prassede Vella, Staff Scientist Jill Carr, Coastal Data Scientist

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The Massachusetts Bays National Estuary Partnership is a cooperative venture of the Massachusetts Executive Office of Energy and Environmental Affairs, the Massachusetts Office of Coastal Zone Management, and the U.S. Environmental Protection Agency.

<u>Commonwealth of Massachusetts</u> - Charlie Baker, Governor; Karyn E. Polito, Lieutenant Governor <u>Executive Office of Energy and Environmental Affairs</u> - Bethany A. Card, Secretary <u>Office of Coastal Zone Management</u> - Lisa Berry Engler, Director <u>Massachusetts Bays National Estuary Partnership</u> - Pam DiBona, Executive Director

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