

MassBays Regional Coordinator's report
Barnstable County Coastal Resources Subcommittee meeting, 4/21/21

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Massachusetts Bays National Estuary Partnership (MassBays): Visit <https://www.mass.gov/orgs/massachusetts-bays-national-estuary-partnership> for the MassBays mission statement and how we support coastal communities.

MassBays Regional Service Provider (RSP): The Association to Preserve Cape Cod (APCC) is the MassBays RSP for the Cape Cod region and provides regional services and projects to help communities meet goals for coastal protection and restoration. For more information, visit <https://apcc.org/who-we-are/partners/mass-bays/> or contact jmuramoto@apcc.org.

Updates on representative projects:

State of the Waters: Cape Cod: The Cape contains over 50 coastal embayments, nearly 1,000 freshwater ponds and lakes, and public water supplies for 15 towns. APCC's *State of the Waters: Cape Cod* project translates water quality data for coastal embayments, ponds and public water supplies into easily-understood pass-fail grades (i.e., Acceptable-Unacceptable). The goal is to raise public awareness of water quality issues and to motivate public action to improve and protect water quality. Each year APCC will grade water resources using the most recent available data and will post results on our interactive map and website at <https://capecodwaters.org>.

The first annual *State of the Waters: Cape Cod* report in 2019 found that: 1) more than two-thirds of coastal embayments and more than one-third of ponds were Unacceptable due to excess nutrients; 2) there is a significant data gap for freshwater ponds (only 149 ponds had water quality data, and much of this was old data predating 2015); and 3) public water supplies had excellent water quality based on existing drinking water standards.

In 2020 APCC released the second annual report showing that the number and percentage of unacceptable coastal embayments and percentage of unacceptable ponds increased, indicating ongoing nutrient pollution. As before, public water supplies had excellent water quality based on drinking water standards. APCC applied more stringent data quality standards for pond data, excluding ponds with older data or less than three years of data; only 29 ponds met these standards. As another measure of pond condition, APCC added a new grading system using cyanobacteria data. APCC also added a new Atlas of Restoration Needs and Solutions, an updated Action Plan for Water (<https://capecodwaters.org/action-plan/>), new resources, expanded website with information on fish, aquatic habitat, and cyanobacteria blooms, and a blog with links to the Cape and Islands Water Protection Fund, news articles on PFASs, cranberry bog restoration, pond interest stories, photos, videos, and more – see <https://capecodwaters.org/blog/>.

Data collection for the 2021 update has begun, and we are seeking coastal water quality data from 2016-2020 and pond water quality data from 2016 on. APCC thanks our partners including the Center for Coastal Studies, Cape Cod Commission, Buzzards Bay Coalition, other organizations and towns. The Massachusetts Environmental Trust and EPA SNEP provided funding.

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Cyanobacteria Monitoring Program: Since 2017 APCC has monitored cyanobacteria in up to 40 freshwater ponds, utilizing an EPA QAPP for monitoring. This year APCC plans to monitor 125-150 ponds for cyanobacteria, partnering with volunteers, pond groups, and agencies. APCC will be investigating transport of cyanobacteria from ponds to estuaries via streams and herring runs, funded by an MET grant. Other activities will include formation of a Cyanobacteria Action Network to share information on monitoring results and science. For a description of APCC's cyanobacteria monitoring program, visit APCC's webpage and interactive map on the Cyanobacteria Monitoring Program <https://apcc.org/our-work/science/community-science/cyanobacteria/> . also see the Powerpoint presentation given at the 7/15/20 BCCRS meeting.

Volunteer Herring Count Program; 2021 counts are underway: In 2020 due to the COVID-19 pandemic and the Governor's stay-at-home advisory, APCC sent a recommendation to volunteer herring groups to stay at home. As a result, few volunteer counts were conducted with the exception of the Herring River in Wellfleet. This spring APCC, the River Herring Network, Barnstable County's Cooperative Extension, and MassBays partnered on a webinar to share experiences on counting during a pandemic and to provide recommendations for safe counting (i.e., social distancing, wearing face masks, avoiding crowds, not sharing equipment). Volunteer counts are now underway at approximately 16 herring runs on Cape Cod. Since 2007 APCC has supported volunteer herring counts as a means of obtaining information on river herring populations, identifying and documenting restoration needs and successes, and building public support for protection of herring and restoration of runs. Cape Cod now accounts for over a third of the Commonwealth's monitored herring runs. For more information visit <https://apcc.org/our-work/science/community-science/herring/>

Coastal Restoration: In fall 2020 APCC staff conducted Zoom interviews of town environmental managers to identify their priority restoration projects for Phase 3 of the Cape Cod Water Resources Restoration Project. Results were used to create a list of priority restoration projects ranked according to newly revised criteria. Interviews revealed that a number of restoration projects have been completed within the past five years and a list will be provided at a future BCCRS meeting. APCC staff have completed a summary of salt marsh monitoring data and will continue to assist the Cape Cod Conservation District with the Cape Cod Water Resources Restoration Project. For more information visit <https://www.apcc.org/rcc/rcc.html>.

MassBays assessment of trends and ecosystem services: MassBays continues to work with regional coordinators, state and federal partners, and partners to assess trends in coastal ecosystems in the MassBays area. MassBays also conducted focus group meetings to identify important ecosystem services that benefit people. Results will be used to prioritize actions for the next five years. A [Story Map](#) was developed which compiles existing data in an interactive format, allowing users to easily view data layers.

Abbreviations:

APCC	Association to Preserve Cape Cod
BCCMC	Barnstable County Coastal Management Committee
BCCRS	Barnstable County Coastal Resources Subcommittee
MassBays	Massachusetts Bays National Estuary Partnership