Annual Report 2017

Casco Bay Estuary Partnership

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The mission of the Casco Bay Estuary Partnership is to help conserve the ecological integrity of Casco Bay and its watershed through science, public stewardship and effective management.

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IMPLEMENTING THE CASCO BAY
PLAN (2016–2021)

In our second year implementing the Casco Bay Plan, CBEP staff and partners have been laying the foundation for dealing with the challenges accompanying our changing coast, by reaching out to new partners and embracing new technologies.

OUR CHANGING BAY

Casco Bay’s coastal environment is changing due to a combination of forces including regional climate, ocean acidification, invasive species and coastal development. Resilient coastal ecosystems are less likely to collapse in the face of change and are more likely to continue to provide environmental goods and services despite external pressures. Protecting and enhancing the resilience of coastal ecosystems and coastal economies are important policy goals for CBEP.

This report highlights just some of the important work we are doing. To learn more about the Casco Bay Plan, visit us online:

WWW.CASCOBAYESTUARY.ORG

Letter from the Director

Maine’s Casco Bay is in a period of unprecedented change, not only due to climate change, but also the cumulative impacts of human activity going back at least as far as European settlement. Signs of change are everywhere.

- Aquaculture is booming in the Bay, with 15 companies in full production for 2017 at 21 locations, and dozens of companies and individuals working on aquaculture at a pilot scale.
- This past summer saw one of the longest and most severe “red tide” blooms in Casco Bay’s history, shutting down all shellfish harvests in the Bay for a couple of months.
- Several novel phytoplankton species turned up in the Bay in 2017, including a species of Karenia that caused a troubling bloom in September.
- Four growing seasons after the boom in green crabs caused a precipitous decline in eelgrass, especially in the Eastern Bay, there are signs of slow recovery. A new survey is being planned for 2018 to see where we stand.
- Casco Bay Estuary Partnership, like each National Estuary Program, is charged with working collaboratively to implement community-based priorities. Those priorities are captured in the Casco Bay Plan, which is periodically updated to reflect changing circumstances and threats to the Bay.

We are nearly two years into implementing the most recent Plan, and we have made real progress. We created the Casco Bay Monitoring Network to improve our collective ability to observe the Bay and understand how it is changing. The Casco Bay Nutrient Council has begun wrestling with the thorny challenge of seeking cost-effective and equitable ways to reduce harm to the Bay from nutrient pollution. CBEP staff are working at the local community level on coastal restoration and climate resilience. Anchored by our many partners and guided by our Plan, CBEP looks forward to the challenges and opportunities ahead.
Protect, restore and enhance key habitats that sustain ecological health.

CASCO BAY EELGRASS CONSORTIUM

The Casco Bay Eelgrass Consortium, an informal network of government, academic, organizational, and citizen collaborators convened by CBEP, was organized in 2014 following widespread loss of eelgrass beds in the Eastern Bay. Following successful Consortium efforts to transplant eelgrass in 2015, anecdotal reports suggest eelgrass is naturally returning to some areas. To better assess current eelgrass coverage, the Consortium plans to commission Bay-wide mapping of eelgrass beds in 2018.

*Consortium members transplanting eelgrass, 2015.*
Reduce nutrient pollution and its impacts, including coastal acidification.

**FRIENDS OF CASCO BAY PUMPOUT BOAT**

CBEP has provided funding for over 15 years to support Friends of Casco Bay’s operation of a recreational vessel pumpout program in Casco Bay, which offers a convenient way of disposing of vessel sewage from marine toilets. FOCB also provides education for boaters on water quality issues and the Casco Bay “No Discharge Zone.” CBEP utilizes an annual contribution from Portland Water District for water quality improvement programs to support this service.

**GOAL #2**

**CASCO BAY NUTRIENT COUNCIL MEMBERSHIP**

- Cumberland County Soil & Water Conservation District
- Friends of Casco Bay
- Greater Portland Council of Governments
- Island Institute
- Maine Department of Environmental Protection
- Maine Water Environment Association
- Midcoast Economic Development District
- Portland Public Works Department
- Portland Water District
- South Portland Treatment Systems Manager
- University of Maine
- Yarmouth Town Engineer

**NUTRIENT COUNCIL**

CBEP has created an innovative regional forum for collaborative problem solving regarding strategies for reducing the impacts of nutrient pollution on Casco Bay. The 12-member Casco Bay Nutrient Council and supporting Advisory Network have been meeting to build a common understanding of nutrient pollution, its sources and solutions. The Council has been cited as a unique and valuable collaborative venue for non-confrontational discussion of the complicated issues surrounding reduction of nutrient pollution in the Bay.
Foster resilient communities and their connections to Casco Bay.

ECONOMIC STUDY
CBEP released a study, “The Economic Contribution of Casco Bay,” prepared by the Maine Center for Business and Economic Research with rbouvier consulting.

COMMUNITY GRANTS PROGRAM
The Community Grants program strives to fund locally-led projects that bring together new partnerships and engage communities with Casco Bay and its watershed. In 2017, CBEP funded six Community Grant projects at $13,243 total. CBEP received fifteen proposals totaling nearly $45,000.

Excerpt from the economic study highlighting the Ocean Economy.

CASCO BAY: GROWING EMPLOYMENT
Ocean Economy
Employment growth in the ocean economy has been steady since 2006, growing by 16 percent over a 10-year period.

EMPLOYMENT CHANGE IN THE FIVE OCEAN SECTORS FROM '06 - '16:
- Tourism & Recreation: +12%
- Ship & Boat Building: +11%
- Marine Transportation: +105%
- Living Resources: +16%
- Marine Construction: +36%

SINCE THE PROGRAM’S INCEPTION IN 2016
COMMUNITY GRANTS PROGRAMS:
13 SCHOOLS, MUNICIPAL & NONPROFIT PARTNERS
IMPACTED NINE CASCO BAY COMMUNITIES
OVER 200 PEOPLE PARTICIPATED IN THE CHEBEAGUE ISLAND AQUACULTURE FESTIVAL
THE MAINE COAST FISHERMEN’S ASSOCIATION VIDEO RECEIVED
915 VIEWS 100 LIKES 96 SHARES
**GOAL #4**

Mobilize collective knowledge and resources to support Casco Bay.

**VOLUNTEER-BASED MARINE INVASIVE SPECIES MONITORING (MIMIC)**

CBEP funds ongoing work by the Marine Invasive Monitoring and Information Collaborative (MIMIC), sponsored by the Wells National Estuarine Research Reserve, to monitor marine invasives on Chebeague and Peaks Islands and engage volunteers in stewardship efforts.

*A MIMIC project on Peaks Island. Photo courtesy of Wells National Estuarine Research Reserve.*

**CASCO BAY MONITORING NETWORK**

In 2016, CBEP created the network to identify shared monitoring priorities among the growing number of organizations who are monitoring the waters within Casco Bay and its watershed. In 2016-17, we collected and organized water monitoring information from 14 organizations with a total of 31 monitoring programs addressing biota, nutrients, sediments, tidal wetlands, toxics, and water quality. This information is available in map form on CBEP’s website.

**CASCO BAY STORIES**

**www.cascobaystories.org**

This year, we added stories from three new organizations: Waterfront Alliance, The Telling Room, Maine Coast Fishermen’s Association.

**CASCO BAY MONITORING NETWORK — SURVEY MAPPING PROJECT**

**MONITORING BY ORGANIZATION**

- Bowdoin College (1)
- Casco Bay Estuary Partnership (172)
- Environmental Protection Agency (12)
- Friends of Casco Bay (135)
- Gulf of Maine Research Institute (54)
- Island Institute (1)
- Maine Coastal Program (108)
- Maine Department of Environmental Protection (223)
- Maine Department of Marine Resources (300)
- Maine Healthy Beaches (6)
- Southern Maine Community College (2)
- University of Maine (15)
- University of New Hampshire (1)
- Wells National Estuarine Research Reserve (154)

**CASCO BAY MONITORING NETWORK**

**6 SITES MONITORED IN CASCO BAY**

**12 SITES MONITORED IN MAINE**

**600 MONITORING EVENTS IN MAINE SINCE 2008**
CBEP is funded by the US Environmental Protection Agency under Cooperative Agreements #CE96190301-0 and #CE00A00063-0 with the University of Southern Maine.

CBEP owes a great deal of credit to our Management Committee, our organizational partners who meet regularly to guide staff in carrying out our mission.

Thank you to our many Committee members!

In memory of Jed Wright

A valued colleague and friend to CBEP. Jed was a project leader of the U.S. Fish and Wildlife Service’s Gulf of Maine Coastal Program, was on CBEP’s Management and Executive Committees, and throughout, was a close collaborator on many fish and wildlife projects. We will miss Jed and his many contributions to the conservation community.