



Casco Bay Currents Fall 2019

Fri, Sep 13, 2019 at 3:27 PM

Casco Bay Currents, an email newsletter of the Casco Bay Estuary Partnership

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Fall 2019



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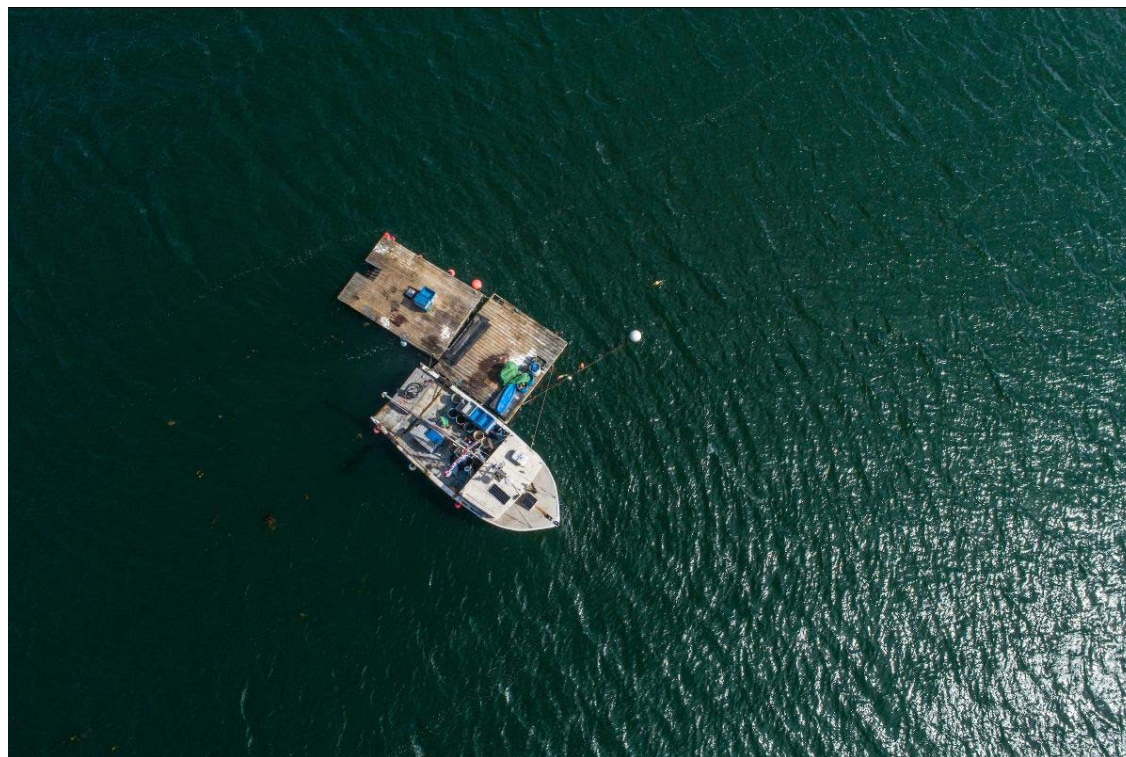


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Welcome,

to the Fall 2019 edition of *Casco Bay Currents*, the newsletter for Casco Bay Estuary Partnership (CBEP).

You are receiving this quarterly email newsletter because you signed up for our newsletters in the past. If you wish to unsubscribe, please click the link at the bottom of the page.



A lobster boat anchored off Little Chebeague Island.
@Jerry and Marcy Monkman/EcoPhotography

Tackling Nutrient Pollution in Casco Bay

Nutrient Pollution in Casco Bay

Casco Bay Estuary Partnership

NUTRIENT POLLUTION IN CASCO BAY: AN EMERGING ISSUE

- Excessive nutrient loading is causing a decline in Casco Bay's most cherished resource, its water quality. Excess nutrients cause algae blooms that reduce water clarity, affect plant growth, and can even cause fish and wildlife mortality.
- Due to our region's relatively low population, Casco Bay's water quality is generally excellent compared to other coastal bays. This is a good thing, but it also means that the Bay is beginning to experience the effects of excess nutrients.
- In Casco Bay, nutrient pollution is a direct byproduct of excess nitrogen entering the Bay.
- Several areas in Casco Bay are of greatest concern: Portland Harbor, the Newseum, the Mack River, and the upper New Meadows.

SOURCES OF NITROGEN POLLUTION IN CASCO BAY

Percentage ranges are not intended to be taken literally.

- URBAN WASTEWATER (30-50%)**
Excess Casco Bay wastewater treatment plant effluent
- ATMOSPHERIC DEPOSITION (20-40%)**
Urban and suburban rooftops, lawns and city streets, parking garages, and fertilizer and pet waste
- ATMOSPHERIC DEPOSITION (10-15%)**
Includes emissions from vehicles and industrial sites

In 2017, 2018, and 2019, the Casco Bay Estuary Partnership (CBEP) conducted a series of water quality monitoring cruises in Casco Bay. The data from these cruises shows a clear trend of increasing nutrient levels in the Bay, particularly in the summer months. This is a concerning trend that needs to be addressed.

IMPACTS OF NUTRIENT POLLUTION ON CASCO BAY

HUMAN HEALTH

Excess nutrients can cause harmful algal blooms (HABs) that can cause illness in humans and animals. HABs can also cause respiratory problems and other health issues.

THE BAY ECONOMY

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AGILITY CASCO BAY ESTUARY PARTNERSHIP

NUTRIENT POLLUTION IN CASCO BAY

CBEP and partners are monitoring nutrients around Casco Bay to provide real-time data on nutrient processes. CBEP's "NuLAB", a land-based nutrient analyzer, deployed off the Portland Street Pier in South Portland, has been automatically collecting nitrate, nitrite and ammonium samples every two hours all summer. Seeing a likely connection between nitrate/nitrite concentration and rainfall events, CBEP plans to redeploy the sensor earlier in spring 2020 to capture data during heavy rainfall events. All data collected this summer is preliminary.

To link to streaming buoy data, or download the Nutrient Council report or a fact sheet on nutrient pollution, go to [this page](#) on the CBEP website.



"Shell Day" Monitoring Blitz for Coastal Acidification



Maine Shell Day Participants

On August 22, the first ever Northeast Shell Day took place. The goal of this single-day monitoring blitz was to get a snapshot of coastal conditions up and down the Atlantic coast, from Downeast Maine to Long Island Sound.

The oceans are getting progressively **more acidic** with rising atmospheric CO₂ levels. For shell-forming mollusks like clams and oysters, increased levels of acidity in seawater can interfere with their ability to build and maintain their calcium carbonate shells. Not much is known about the ecological effects of coastal acidification, and scientists are working to fill in the gaps.

On Shell Day, monitoring organizations collected Total Alkalinity bottle samples supplied at no cost and later analyzed by the Northeast Coastal Acidification Network (NECAN) and partnering EPA and University laboratories. The collected water samples were then sent to participating labs where they were analyzed to determine total alkalinity.



SHOREUP MAINE 2019
Sea Level Rise: Who Pays and How?

FRIDAY, SEPTEMBER 27, 2019
UNITED FARMERS MARKET OF MAINE • BELFAST, MAINE



FINAL AGENDA

HAVEN'T REGISTERED—SIGN UP TODAY TO JOIN US!

AICP credits available



Join us for a daylong conference highlighting innovative strategies to help communities pay for projects to increase their resilience to sea level rise and severe storms.

Many Maine communities have identified climate-related vulnerabilities to their homes, businesses, and natural areas due to the impacts of sea level rise and increases in severe storms. Finding funding for adaptation solutions is often a major barrier to addressing these concerns and moving forward.

Join the [Island Institute](#), [Maine Coastal Program](#), the [New England Environmental Finance Center](#), [Casco Bay Estuary Partnership](#), and [Resilience Works](#),

Register Here



Casco Bay Coastal Academy: Conservation Commissions & Plan Review Tuesday, October 29, 2019



WHAT: Hands-on workshop to learn how to review development plans with a focus on conservation commission priorities. Southern Maine Planning & Development Commission staff will lead this workshop.

WHO: Conservation commission members, other municipal board members, municipal staff, interested citizens

WHEN: Tuesday, October 29, 5:30— 8 p.m. (light dinner included)

WHERE: Gilsland Farm Audubon Center, Falmouth

FMI: Contact: victoria.boundy@maine.edu



REGISTER HERE

CBEP and Partner Events

- **September 26:** *Free YardScaping workshop.* Learn ways to grow a beautiful lawn that's safe for kids, pets, and the environment while saving money, time, and effort. Cumberland County Soil & Water Conservation District. Yarmouth Water District. For more info, contact Ali Clift, CCSWCD, at 892-4700.
- **September 27:** *Sea Level Rise - Who Pays and How,* United Farmers Market of Maine, Belfast. Island Institute & Partners. More info and registration [here](#).
- **October 2:** *Storytelling with Maps,* Wells National Estuarine Research Reserve. Participants will leave this one-day workshop with the skills necessary to create a free online map and use that map to create a multimedia presentation that is easily shared. More info and registration [here](#).
- **October 20:** *Mill Brook Family-Friendly Trail Grand Opening,* Westbrook. Presumpscot Regional Land Trust. Go [here](#) to RSVP.
- **October 29:** *Casco Bay Coastal Academy: Conservation Commissions & Plan Review,* Gilsland Farm Audubon Center. Hands-on workshop to learn how to review development plans with a focus on conservation commission priorities. More info and registration [here](#).
- **October 30:** *Building Risk Communication Skills.* Wells National Estuarine Research Reserve. Better understand how people respond to risk and develop communications skills for discussing hazards in your community. More information and registration [here](#).

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