

Friends of Casco Bay Board Meeting

Tuesday, October 15, 2019
Gulf of Maine Research Institute
Commercial Street, Portland

Present: Malcom Poole, President, Steve Bushey, Pat Ianni, David Kaufman, Peter LeBourdais, Sandy Marsters, Seb Milardo, Ann Thayer, Lori Thayer, Jack Thomas

Absent: Bud Higgins, Althea Bennett McGirr, Tollef Olsen, Derek Pelletier, Joan Benoit Samuelson

Staff: Mary Cerullo, Mike Doan, Will Everitt, Ivy Frignoca, Cathy Ramsdell

Welcome – *Malcolm Poole, President*

Malcolm said that AJ Curran had resigned from the Board after serving nearly his whole term and often representing Friends at community events.

Malcolm reminded the Board that its prime mission is to support the staff. Work priorities are carefully thought out and incorporated into the annual operating plan, which lays out the staff's work for the next fiscal year, beginning each April 1. Malcolm noted that great ideas are converted into action plans through the operating plan process.

Malcolm encouraged all to attend the Community Engagement Committee (CEC) meetings, where the discussions are lively and conversational, thanks to chairman Sandy.

A Minute for the Bay

Sandy was on the Bay this past weekend; it was sublime to watch the Bay change its entire outfit in just a few weeks and get ready to put itself into winter mode.

Malcolm has seen Pumpout Coordinator Jim Splude out on the Bay many times this summer, thanks in part to the enhanced visibility provided by *Headmaster*.

Ann Thayer discussed the installation of a flow gauge on the Royal River in Yarmouth, after an absence of many years, funded in part by the US Geological Survey and Casco Bay Estuary Partnership. It is the only river gauge in a heavily populated area of Casco Bay. There will be a public event to recognize the installment on October 31.

Board Consent Package (minutes and financials) – *Malcolm*

Malcolm has reviewed the financials with some care. We are right on budget half-way through the fiscal year.

Action Item: Approved to accept the September minutes and the financials.

In-depth Staff-led Presentation and Discussion – *Collaborative Solutions to Nitrogen Pollution in Casco Bay* —*Ivy Frignoca, Casco Baykeeper*

Ivy began with brief updates of her work since the last meeting:

She was invited to join the Governor's Climate Council's Coastal and Marine Working Group.

The Portland Harbor confined aquatic disposal cell (CAD cell) dredge project is about to move forward, submitting dredge permits in November.

She has been working closely with DEP, EPA, and Municipal Separate Storm Sewer System (MS4) municipalities to strengthen requirements in upcoming MS4 permit renewal.

Ivy devoted most of her time to **Nitrogen in Casco Bay**, a PowerPoint presentation she had recently delivered at the Maine Water Environmental Association (MEWEA) fall conference. She noted that her presentation illustrates how our entire staff works together on an issue and how we work via science, community engagement, and advocacy. Her presentation covered Background, Science, Local Effects, and Advocacy.

Science

Ivy discussed our continuing staff monitoring around the Bay between April and October, when we collect Total Nitrogen and Inorganic Nitrogen at specific sites around the Bay. The Bay is experiencing increased precipitation, which means higher loads of pollutants entering the Bay as a result of stronger storms and a rise in

ocean temperature. Every stormwater event is different, as we found in our Nabbing Nitrogen citizen science flash mob event on July 10, 2016, when we had drought conditions two weeks before and then a heavy rain the night before the sampling took place. Nearly 100 participants simultaneously collected vials of water along the Fore River estuary in Portland and South Portland. The samples were analyzed for nitrogen, showing that the areas closest to storm/sewer outfalls had the highest nitrogen content. Although concentrations were high everywhere, they ranged from highest near river/creeks to lower further offshore.

Local effects—Why we are we concerned about nitrogen

Excess nitrogen from sewage, fertilizers, and polluted stormwater can fertilize algal blooms. Thick mats of algae can smother benthic organisms. Blooms of phytoplankton die and decay, producing carbon dioxide in the process, which contributes to coastal acidification. Higher acidity has a negative effect on clams, causing pitting of shells.

Our staff has been tracking algal blooms for 4 or 5 years. This year, our Water Reporter volunteers tracked 19 algal blooms over the course of the summer. As a result of a number of storm events, groundwater contained enough nitrogen to fertilize many blooms. In some instances, we could detect where groundwater was seeping out where blooms were starting.

In other algal bloom events:

In 2016, we sampled the acidity below the algal bloom in Mill Cove behind Hannaford in South Portland. We found a drop in sediment pH from 7.16 to 6.4 in one week. 8 is a “healthy” level of pH. Because of the acidic conditions and the fact that oxygen could not penetrate through the thick mat, clams died.

In a Basin Cove bloom in Harpswell, juvenile clams could not settle through the algal mat.

A *Karenia* phytoplankton bloom in Maquoit Bay killed all the clams across 14 acres of mudflats.

Advocacy and community engagement: What is Friends of Casco Bay doing about nutrient/nitrogen pollution

Much of Ivy’s work involves commenting on discharge permits, in particular, the Municipal Separate Storm Sewer System (MS4) permit, which applies to all urban areas. An MS4 is a conveyance system owned by a state or city that collects or conveys stormwater (e.g., storm drains, pipes, ditches), is not a combined sewer, is not part of a sewage treatment facility system, and is regulated through the Clean Water Act.

Ivy asked the state to write into the permit that a municipality must show ways they are addressing nutrient impairment, such as passing a fertilizer ordinance. She tried to get provisions to address nitrogen pollution and have meaningful testing of the pipe systems to eliminate pollutants that should not be included in the system (such as illegal tie-ins).

Ivy explained how discharge permits for MS4 may be based on a numeric limit or on a narrative analysis if eelgrass is present. Maine has not established a number or limit above which facilities cannot discharge. If nearshore numbers are on average above 3.2 milligrams per liter (with eelgrass), or 4.5 (without eelgrass) they have to find the source of the excess nitrogen. Then they have to consider the dissolved oxygen limit. The process is incredibly complex, as nitrogen numbers may be affected by tides, stormwater, etc. For this permit period of five years, we agreed to *optimization* of efforts to reduce nitrogen over the term of the permit.

We advocate for nitrogen testing and reduction in sewage treatment facilities. We are pushing for sewage treatment operators to do more than one year of sampling and to have a sampling plan that captures the effects of many different weather events.

We have been advising on the design of the Integrated Planning infrastructure of Portland's combined sewer systems. Part of the Clean Water Act allows a municipality to consider its overall remediation efforts in one coordinated plan. Improving water quality is the primary goal of this effort.

Last spring, our legal intern put together a memo on fertilizer ordinances around the country; Cathy shared this information with the South Portland Fertilizer Working Group on which she serves.

BayScaping presentations were revamped and Mary many offered around the Bay.

Our “Dogs of Casco Bay” photo social media campaign reminds dog owners to pick up pet wastes. Photos of Board members walking their dogs are welcome.

Our work with Maine Ocean and Coastal Acidification (MOCA) partnership includes advocating for reducing nutrient pollution, one of the recommendations of the initial Ocean Acidification Study Commission.

Ivy will be meeting monthly through next summer with the Climate Council’s Marine and Coastal Working Group to help draft recommendations for the Maine Climate Council’s action plan. We will advocate for nitrogen reductions as part of that plan.

Increased nitrogen monitoring and remediation is having a positive impact

Portland Water District reconfigured its waste treatment cycle to reduce nitrogen. Nitrogen discharged from the East End Sewage Treatment Facility has been reduced from a high of about 2400 lbs. per day to below 500 lbs. consistently during the summer months.

Department of Environmental Protection biologists have seen that eelgrass beds around Ft. Gorges are recovering.

Community Engagement Committee—*Sandy Marsters, Committee Chair*

Sandy reviewed highlights of the October 7th meeting:

He asked Cathy to comment on the Climate Change and Casco Bay Fund—A year and half ago we were invited to apply to a national foundation. We submitted a proposal, and although we were in the top five applicants, we lost out to a great project involving kids. We were invited to reapply this year. Cathy found out over the weekend that we received the \$100,000 grant. We cannot publicize this success until after the foundation releases its announcement. Even then, we will be careful how we describe this gift to our campaign, as we are still in the quiet phase of fundraising and we are not launching the public phase of the campaign until our 30th Anniversary Celebration on April 29, 2020. Cathy reminded us that the goal of the campaign is to raise \$1.5 million over 36 months. We reached 65% of our goal. To date, we have received gifts and pledges from 19 donors totaling \$977,050.

The Film Festival has been sold out for a few weeks, but we do encourage people to try to buy tickets on the day of the festival. Tickets will become available as attendees and sponsors give us tickets back to re-sell. Raffle items are still needed, including experiential items, such as boat trips, foodie tours, etc. Any donations need to be in the office by end of day on Monday, October 28, so Cathy can assemble the groups of items.

30th Anniversary Film—Knack Factory is getting close to finishing the recordings (audio and video) for the four-minute film for our 30th anniversary celebration. We expect to do the public launch of the campaign at our 30th.

Executive Director Update—*Cathy Ramsdell, Executive Director*

Cathy discussed the following topic:

- Film Festival: She and Mike Doan did the tech run for the Film Festival today, adjusting timing, sound, and lighting effects in hopes that all goes smoothly at the event.
- Interns are working away on various projects.
- Volunteer metrics in the Board package, put together by Sarah Lyman, show a strong uptick in participation from last year. Millennials like to have these opportunities to give back and we are engaging a young demographic through many of our volunteer activities.
- Sara Biron, our Design, Development, and Database Associate, is holding an art show on Thursday at 254 Western Ave, South Portland.
- The pumpout boat will be hauled out after Halloween. RV *Joseph E. Payne* will come out of the water in mid-November.

The meeting adjourned at 7:21 pm.