

FY21 Operating Plan

April 1, 2020 – March 31, 2021

FOR INTERNAL USE ONLY



photo Kevin Morris

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I. Context for FY21 (April 1, 2020 – March 31, 2021)

This document is set up for you to use the Table of Contents as your guide to better understand the plan; if you are reading this electronically, you can connect to specific sections of the plan straight from the Table of Contents. In the Table of Contents, simply click on the line item that you want to view, click your Ctrl key and whoosh –the Table of Contents will put you there.

As we transition from FY20 to FY21, we are celebrating 30 years of working to improve and protect the environmental health of Casco Bay.

This Document

This document contains our FY21 Operating Plan with a summary of the FY21 Budget highlights. These elements support our Strategic Plan 2018-2022, which describes a vision for 2022 and identifies seven strategic initiatives for advancing our mission for a healthier Bay. These strategic elements are summarized below (II). This plan and those that have preceded it over the years serve as incredible sources of history and documentation of our work with supporting rationale. They can all be found in the Board Resources section of our website.

This Year

With our operating plan, we set our intention for the coming year. And what a year it may turn out to be.

In addition to our ongoing programmatic and administrative work, should we be both fortunate and well-prepared, during this next year we will also:

- host our 30th Anniversary event and launch the public phase of the fundraising campaign
- continue the quiet phase and finish fundraising for the Climate Change and Casco Bay Fund
- give Mary a warm retirement sendoff
- hire a Staff Writer
- take the time we need this year to prepare for the launch of two additional continuous monitoring stations at the end of the fiscal year, including working out and working up new data products and collaborating on climate change conversations in our community
- move our offices to a new location
- hire a Science Assistant
- and launch two additional continuous monitoring stations

There is much that may mess with us, not the least of which, as of this writing, is the Covid-19 virus which continues to pop up in various countries around the world. Markets in the US reacted strongly as of the week of this writing, which may or may not impact fundraising. Further, should the virus pose more of a threat in the coming months, we may find that we and others are not hosting or attending events in quite the same way, until the threat is past.

This Plan

This **Operating Plan** is for *internal use* and contains detailed narrative generated by Staff, laying out the priority activities in which we will engage this next fiscal year, April 2020 to March 2021, to make progress on the goals outlined in the Strategic Plan. Please note, you will see references to both 2020, and FY21 itself; both refer to efforts we intend to undertake during this next fiscal year.

The Operating Plan is in four sections: Programs, Communications and Development, Technology and Capital Assets, and Management and Administration. The contents of this plan are open for discussion among Board and Staff. **The FY21 Budget and its Supplemental Schedule are separate documents and are integral to this plan.**

While the Strategic Plan is elegant in its brevity – 3 pages, the Operating Plan is the opposite. The beauty of a plan such as this is that our intentions and rationale are clear and transparent, and we – Staff and Board – can all be on the same page in our messaging. Having a clear plan helps coordinate and prioritize our focus and use of resources, and it makes the search for resources focused and straightforward.

We engage in various assessment and planning activities throughout the year. You will “hear” the different voices of Staff echoing in their sections. Drafts are submitted to me. I identify elements that need clarification or refinement, revisit those with Staff, write additional sections, update the appendices, create and rework the budget details, summary and supplemental schedule, and edit the final draft of the plan. There are always more ideas to tackle than there are time and capacity, so we limit our commitments where possible. We must live within our means of time, psychic energy, and monetary resources. Inquiries from the public pop up every day, and responding to these takes precedence. The assessment and planning processes we undertake throughout the year help us weigh alternatives as we construct this annual work plan.

There are occasional repetitions in this document referring to different efforts or initiatives, and where we can, we try to simply steer you to some other section containing the details. Because this is for internal use only and because we have much to do, you will perhaps forgive us for imperfect editing and formatting. Arguably, the bulk of the value of this document was as much or more in all of the assessing, planning, and decision-making that led to its creation.

Our mission to improve and protect the environmental health of the Bay is supported by efforts in science, community engagement, and advocacy – the three legs of the stool, so to speak. We conduct our advocacy using a “work with” approach, based on common sense, decency, humility, and compromise, backed by science and the law. Given the increasing occurrence of algal outbreaks, changing weather patterns, sea level rise, and increasing temperatures, our monitoring and community engagement efforts are as important as ever.

Much of the value of what we offer to the community lies in our ongoing programmatic work, making that work and its implications understandable and relevant to people throughout our community and our state, empowering our neighbors to engage in activities that have a positive impact on the health of the Bay, strengthening our working relationships around the Bay and across the state, and advocating for policy changes that make a difference in the health of the Bay, while we run our organization responsibly and professionally. We strive to be an organization that is both leading and learning.

In summary programmatically, in FY21, we will be tackling our goals in the following ways:

1. Bring to public attention the changes we are seeing in conditions in Casco Bay, shedding light on the ways in which climate change is impacting the region, and engaging our community in ways to share observations and explore ways to mitigate and adapt to the changes. Increasing temperatures, nitrogen pollution, and acidification are of major concern. We will be communicating and engaging in a variety of ways: monthly updates of our water quality data on the website and the development of new ways of looking at some of our data to highlight what it is showing us; working with our communities to understand ways we can respond to climate change, both at the local and at the state

level; maintaining and expanding our Water Reporter network to see and share what is happening around the Bay, and reaching out to our audiences using a variety of media and event opportunities.

2. Advocate for permits, policies, and practices that protect the health of the Bay.
3. Raise funds for monitoring and community engagement through the Climate Change and Casco Bay Fund campaign.
4. Build and maintain collaborations and partnerships that advance our mission with the Board and Volunteers, colleagues and scientists, interns, members and donors, policy makers, municipal and other governmental partners, other water groups, Bay “users,” and other members of the public.
5. Maintain our operating capacity to realize our operating plan while responding to issues, threats, requests, and opportunities, as they arise, effectively and in a timely manner.
6. Grow our financial resources to enable us to better deliver our mission.
7. Identify and establish a new office location that will serve the needs of the organization for years to come.

Many thanks to the Staff for continuing every day for finding ways to work together so effectively to keep our work relevant and bring it to the public. Thank all of you for your dedication to considering the contents of this plan along with the budget that will support it. We look forward to the discussions that will follow in the days ahead.

Respectfully submitted,
Cathy L Ramsdell
Executive Director, Friends of Casco Bay

II. Highlights from the Strategic Plan 2018 – 2022

[For more detail, please see the Strategic Plan in its three-page entirety]

Vision for 2022:

- We have **raised awareness** that Casco Bay is essential to quality of life in the region.
- We have **engaged members of our community** by sharing the science of water quality in understandable ways that influenced them to support policies that keep Casco Bay healthy.
- We have **advanced our science** using technology and Volunteer engagement.
- We have **decreased pollution**, from nitrogen, stormwater, sewage, plastics and marine debris, pesticides, and fertilizers.
- We have shined a light on **the impacts of climate change**, as well as global policies and economic influences.
- We have **expanded our membership**.
- We are **financially strong**.
- We are in **new offices** that fit our needs.

Initiatives for 2018-2022:

- **Monitor water quality** in Casco Bay.
- Translate **data, science and policy** implications into understandable formats.
 - **Communicate**, engage, influence, and deepen understanding of how conditions in the Bay are changing.
 - **Inspire** the community to champion policies and behaviors that support clean water.
- Provide meaningful, low threshold opportunities for **Volunteers** to get involved.
- Continue our **collaborative** “work with” approach to advocacy and influence.
- Identify goals for a fundraising **campaign** to support our science efforts.
- Move our **offices**.
- Manage leadership **succession** in Board and Staff.
- Advocate for standards and controls on **nitrogen and acidification**.
- Advance the visibility, branding, educational outreach, political involvement, and recognition of our mission.
- Apply technology and scientific methods; build credibility; communicate, and educate.
- Pursue collaborations and partnerships that advance our mission.
- Build capacity in Baykeeping and maintain capacity in organization and infrastructure.
- Grow funding consistent with our resources.

Closing summation

Casco Bay belongs to all of us. We are building connections, connecting the dots, and working with our community to improve and protect the environmental health of Casco Bay.

III. FY20 Operating Plan

A. Programs

The employees of Friends of Casco Bay meet together regularly throughout the year in various meeting formats to discuss our work, track progress, calibrate our positions, and assess opportunities. We work as an ensemble, and while we rely on each individual to expertly perform the duties for which they are employed, much of the art of running our organization efficiently and perhaps more importantly, effectively, comes from the insights and synergies of having worked together for an extended length of time. The sharing of expertise, experience, and inspiration are essential to setting direction together, whether staying the course in certain areas, sitting together to rehash a position or strategy, or shifting our focus to launch new initiatives with all of the logistical particulars to be sorted out. The team matters.

Themed meetings, sometimes involving collaborative partners from outside the organization, range from reviewing aspects of our water quality monitoring program and exploring volunteer opportunities, to messaging, advocacy and legal positioning, relationship management, education and outreach efforts, event planning, and communications purposes and designs. The shared sense of rationale and understanding about why we are engaging in certain activities (and not others) is essential for outreach, for fundraising, and for organizational harmony; we must continue to tell stories, effectively and compellingly, about what we are doing to improve and protect the Bay and *why* this work matters. We expect more of our work in the future will involve engaging with our communities around the Bay in conversations to explore how we can respond effectively, and support one another in that response, to the impacts of climate change.

See Appendix A for a matrix of our program activities and Appendix B for a list of our working relationships.

Responding to the Almost Constant Flow of Unexpected Inquiries and Issues

We serve the community when residents have concerns about issues facing the Bay. Each year, time must be reserved for unanticipated issues. We hear from members of the public at frequent intervals on a wide variety of topics, and each of these must be weighed, discussed, and responded to. (For example, in FY20, we responded to requests to investigate nuisance algal blooms in residents' "backyards" and to issues raised by volunteer Water Reporters. There is such a variety of public inquiry!). In FY21, we fully anticipate that new issues will continue to emerge.

1. Science: Water Quality and Other Environmental Monitoring

2020 will mark our 29th year collecting data on the water quality and environmental health of Casco Bay. We maintain and continue to add to one of the largest and most important long-term data sets on marine water quality in New England. In 2020, we will refine and advance our existing ongoing water quality monitoring programs. We will focus on the Continuous Monitoring Program and the Seasonal Monitoring Program, in that order. We will take the time needed to upgrade to new equipment, improve data quality, and deliver more data products in timely ways, essential before we add two additional monitoring stations. Presenting our data and communicating what we are seeing are our primary objectives as we engage our community and advocate for the health of the Bay.

Our monitoring efforts are of two types: ongoing and episodic.

a. Ongoing Monitoring Programs

The two ongoing monitoring programs together provide temporal and spatial coverage for long-term water quality monitoring in Casco Bay. These datasets are vitally important in supporting our outreach and advocacy.

i. Continuous Monitoring Station Program (CMS)

We launched our flagship Continuous Monitoring Station (CMS1) at Cousins Island in Yarmouth in July 2016. FY21 will see the completion of four full years, and the start of the fifth, of hourly year-round measurements at this “cage of science.” We will work toward establishing two additional Stations late in this fiscal year (see Development section below on campaign Climate Change and Casco Bay: A Fund for Technology, Monitoring, and Community Engagement).

This program has two goals: first, collect data on a frequent basis to track changes over time (long-term trends) in the water quality conditions in Casco Bay; and second, deepen our understanding of existing conditions, as well as the seasonal and annual changes in temperature, productivity, and acidification in the Bay.

The Cousins Island station sits at the bottom of Casco Bay in about four meters of water at high tide and consists of a YSI data sonde and a Turner pCO₂ (partial pressure of carbon dioxide) C-Sense sensor. Measured parameters include depth, temperature, salinity, dissolved oxygen, pH, chlorophyll, phycoerythrin (red pigments found in blue green “algae” which are photosynthesizing cyano bacteria – we are just starting to learn about these), turbidity, fluorescent dissolved organic matter, and the partial pressure of carbon dioxide. Derived calculations include total alkalinity, dissolved inorganic carbon, and calcium carbonate saturation state (omega aragonite). Water samples will be collected to analyze levels of total nitrogen and dissolved inorganic nitrogen (nitrate and nitrite, ammonium), and total alkalinity.

Maintenance of the station takes place every two to three weeks; we swap out the deployed data sonde with a clean, powered, calibrated sonde, upload data from the pCO₂ logger, and clean the pCO₂ sensor. We swap the deployed pCO₂ logger every month with a fully charged logger, and we send the pCO₂ sensors to the manufacturer annually for calibration.

We are planning the addition of two Continuous Monitoring Stations to be deployed once we have finished raising money for the Climate Change and Casco Bay Fund. The additional sites will be at opposite ends of the Bay; we have secured permission to deploy at Holbrook Wharf in Cundy’s Harbor, Harpswell, and we have a preliminary go-ahead to use the Coast Guard dock next to GMRI in Portland.

We are working on a modified and improved cage to house the equipment, and a prototype is being built, designed specifically for this program.

While the quality assurance of our science is good, we will continue to refine our quality assurance protocols. Lab analysis of pH and total alkalinity will be used to check our measurements and calculations. A lab is also used for analysis of our nitrogen samples. We will continue building our understanding of coastal carbonate chemistry as well as some of the new water quality parameters we are measuring, through study and through our scientific relationships.

ii. Seasonal Water Quality Monitoring Across Casco Bay

This program includes discrete monitoring conducted during seven events between spring and fall. Monitoring takes place at fourteen *surface* water sites and eight *water column profile* sites around Casco Bay. Profile sites include data and samples collected at the surface, at one meter, and then every two meters to the bottom. We sample approximately every three weeks, with the surface sites and water column profile sites monitored on consecutive days. Profile sites and several surface sites are monitored by boat, with the remaining surface sites monitored from floats and piers. These sites include a selection of historic former Citizen Steward Water Quality Monitoring surface stations, as well as the three Sentinel Profile stations, continuing both of those long-term datasets. Parameters are measured using a YSI data sonde and are the same as those measured in the Continuous Monitoring effort, with the exception of pCO₂. Secchi depth is measured, and water samples are collected to analyze levels of total nitrogen and dissolved inorganic nitrogen.

The Seasonal program provides us with an opportunity to connect with various stakeholders while we are in the field, as well as a chance to be out and about around the bay; this community engagement component is often as valuable as the science.

In FY21, data from two of our profile sites in Portland Harbor will be included in special efforts by the Maine Department of Environmental Protection (DEP). As the DEP expands their data collection for an Environmental Protection Agency ‘Nutrient Scientific Technical Exchange Partnership and Support’ analysis, monitoring at these two sites may result in the request that we assist; if it falls within our capacity, we will help them if we can.

b. Episodic Science Efforts

The array of efforts that can be described as *episodic* tends to change from year to year. These efforts are of lower priority than our Ongoing Monitoring programs, and in the interest of keeping a sharper focus on water quality monitoring, we expect to engage in few additional efforts in 2020. Responding to public alerts that we need to investigate will be our priority (such as a fish kill or algal bloom).

Other Episodic initiatives historically have been pilot projects and initial filters for new issues, technologies, or techniques (such as pesticide and plastics sampling). These efforts provide us with opportunities to explore the “how” or “why” of an issue, and to better understand any potential threats to the health of the Bay. We want to ensure that we do not simply conduct science for the sake of science, but that we continue to monitor that which leads us to improving the health of the Bay and modifying the behavior of those who live, work, and play in and around it.

One important effort is the tracking of macroalgal blooms. Nuisance macroalgal blooms are considered an indicator of nutrient pollution, and Casco Bay has seen an increase in these blooms in recent years. In 2020, we are hoping that these blooms will not be present, but we will be ready to document and track episodes as they occur. (See Baykeeping and Community Engagement sections on Water Reporter).

c. Data Management and Analysis

Data presentation will be a priority in 2020. Monthly updates for our website are generated from both *Seasonal* and *Continuous* monitoring data.

Specifically, after each monitoring event, data from the Seasonal Monitoring program are uploaded to the Water Reporter app (see Community Engagement on Water Reporter), and the

monthly and daily means for each parameter from the Continuous Monitoring Station are graphed and displayed on our website at the conclusion of each month. These monthly online updates for both programs mark an important milestone for Friends of Casco Bay. Timely data product delivery will be an important component of our Science efforts this year.

We will prepare additional data presentations to add to the website and for our other communications. Bringing a new staff writer aboard provides us with a new opportunity to develop science-based stories from our data, perhaps in ways we have not yet explored. For example: A new index of water quality will be produced using the Seasonal Monitoring data. A summary of the CMS data will be generated that will include basic metrics, such as the lowest and highest value for each parameter; the date on which the water temperature fell below, and rose above, 5 degrees Celsius; the percent of Omega Aragonite values that fell below the critical threshold of 1.5; the percent of dissolved oxygen values that fell below State criteria; and the percent of water temperature values above the 90th percentile of historical data. In addition, the daily means of water temperature will be graphed and compared on an annual basis.

We are exploring the utility of using WRDB (water resources database), a free software download designed specifically for water quality data and widely used around the country, to manage our water quality data. We believe this software will facilitate more efficient ways to do quality assurance on our data, organize data via metadata structure, work up data graphics, and fulfill outside requests for our data sets.

We will look for ways to utilize ArcGIS software (Geographic Information Systems) more efficiently and intensively. We will explore using Ocean Data View (ODV), which is a free software program, for visually displaying our water column profile data. JMP software by SAS continues to be the statistical package we use for all of our data analyses.

Mike will also attend and present at one or more of the large regional conferences (Northeast Association of Environmental Biologists, Northeast Estuarine Research Society, Regional Association of Research on the Gulf of Maine, Coastal and Estuarine Research Federation), as well as presenting regularly at Friends events, Casco Bay Matters late in the fiscal year. In the spring of 2020, Mike will present a summary of our data to the Casco Bay Estuary Partnership's Monitoring Committee, and he will present at CBEP's 'State of the Bay' event in the fall.

d. Lab Management

We anticipate an office move during this fiscal year. In the meantime, we will design a more efficient use of existing lab and storage space. We are designing a new system for scheduling equipment maintenance and replacement, and for tracking inventory of calibration buffers and purchases, especially before we build out our Continuous Monitoring Program.

e. Boat Operations

As captain of the R/V *Payne*, Mike is responsible for scheduling routine maintenance and identifying any issues with performance or safety. Once launched, the vessel is kept clean and fueled, ready for use on short notice. The vessel is used for monitoring efforts, impromptu investigations, media moments, stakeholder meetings and outings, fundraising cruises, staff time on the Bay, and other functions. The boat will be stored out of the water from November to April, and tied up at Breakwater Marina (Port Harbor) during the rest of the year.

f. Collaborations

Internally, scientific support for the Casco Baykeeper will continue to be a priority, and Mike will also work closely with Communications Staff to develop images and stories for our website

and other communications channels. We will continue to hold regular Data Meetings to prioritize and design products based on the results of our Seasonal and Continuous Monitoring programs.

Externally, we will continue to foster close working relationships with Casco Bay Estuary Partnership, Maine Department of Environmental Protection, Maine Coastal and Ocean Acidification Partnership, Maine Coastal Observing Alliance, Wells National Estuarine Research Reserve, University of New Hampshire, University of Maine, University of Southern Maine, Southern Maine Community College, University of New England, and Bigelow Laboratory for Ocean Science.

2. Advocacy: Baykeeping

g. Introduction

The Baykeeping Program advocates for solutions to environmental challenges that threaten Casco Bay. The Casco Baykeeper is our primary public advocate and acts as the eyes, ears, and voice for the Bay. She uses our data (and sometimes the data of outside colleagues) to identify problems which must be addressed to improve and protect the health of the Bay. This necessitates working at the local, state, and sometimes federal levels. Our goal is incremental positive change. For example, permits issued under the Clean Water Act (CWA) must be renewed every 5 years. The CWA contemplates that permit terms be adapted and made more stringent as needed to address new water quality conditions. Therefore, every five years our Baykeeper can advocate for more stringent terms and the use of newer technologies to reduce pollution.

Our last five-year strategic plan, completed in 2018, identified the effects of climate change – including ocean and coastal acidification, warming ocean temperatures, and increased intense storm activity which amplifies stormwater pollution – as the biggest threat to the health of Casco Bay. Advocacy to reduce the causes and adapt to ocean climate change remains the top Baykeeping priority.

The below workplan summarizes the major accomplishments of FY20, outlines how, in FY21, Baykeeping will address the effects of climate change and other threats to the health of the Bay.

h. Major Accomplishments of FY20

The four major accomplishments of FY20 were: advancing our response to the effects of climate change; reducing stormwater pollution through regulatory solutions; participating deeply in Portland's integrated planning process to elevate and accelerate an emphasis on improving water quality; and ensuring that the Portland Harbor dredge occurs with adequate environmental protections.

iii. Climate Change Solutions

FY20 significantly advanced our climate change advocacy. In prior years, we lobbied for passage of the Ocean Acidification Study Commission bill, served on the Commission, helped create and lead the Maine Ocean and Coastal Acidification (MOCA) partnership, and led numerous symposia through MOCA that drew together scientists and policy makers.

In FY20, we succeeded in helping passage of the Governor's climate council bill which includes language to help meaningfully address the effects of climate change on the marine environment. We are hopeful that the Council will transition a wholly voluntary network of work into a state-sanctioned and coordinated action plan. Ivy crafted language for a marine advisory council bill

that was reviewed by the MOCA Steering Committee and incorporated into the Governor's climate council bill. Ivy testified and organized testimony from a broad range of marine constituents in support of the bill. Following its unanimous passage, Ivy was invited by the Governor's staff to the bill-signing ceremony and received an appointment to the Coastal and Marine Working Group (CMWG) of the Climate Council.

We received a grant to transition coordinating ocean climate change work from the voluntary MOCA partnership, which Ivy coordinated for the last two years, to the Climate Council. We used the grant funds to hold three facilitated stakeholder meetings on: research and monitoring; policy and law; and resiliency and adaptation. The stakeholder meetings drew invited participants from the MOCA partnership. We discussed what had been accomplished and recommended actions. MOCA collated the meeting results and drafted a short action plan that Ivy presented to the Climate Council. Many of the recommendations are being woven into the work of the Science and Technical Subcommittee and the Coastal and Marine Working Group of the Climate Council.

***iv.* Reducing Stormwater Pollution through Regulatory Solutions**

Ivy wrote nine sets of comments and attended numerous meetings regarding the terms of the Municipal Separate Storm Sewer System (MS4) permit. The first draft basically continued the terms of prior MS4 permits. Those terms had been deemed insufficient and out of compliance with the tenets of the Clean Water Act by the Ninth Circuit Court of Appeals. That Court issued an opinion which applied to all MS4 permits issued under the Clean Water Act (CWA) and directed the EPA to develop clear, specific, and measurable terms that must be included in MS4 permits. EPA did that work in a document that became known as the "Remand Rule."

Ivy studied the Remand Rule in detail, consulted experts, including EPA attorneys engaged in drafting the rule, and reviewed MS4 permits from other jurisdictions that complied with the Rule. She used this extensive background over the course of the last two years to firmly advocate for advances in Maine's MS4 permit that would meaningfully improve water quality and bring our permit into compliance with the CWA.

The final draft of the permit came out late in the fiscal year and contained two major advancements that Ivy had advocated for strenuously: (1) dry weather monitoring of stormwater outfalls to detect bacteria pollution and some other pollutants, including nitrogen in areas that show signs of nutrient impairment; and (2) requiring municipalities to adopt 3 structural and 3 nonstructural measures to restore water quality to urban impaired streams. With respect to the monitoring, Ivy advocated for quality assurance, including proper training and use of approved protocols and analysis set forth in a QAPP (quality assurance project plan). Ivy and Mike reviewed and commented on the draft QAPP. Ivy advocated for the identification of sites that warrant wet weather monitoring to be included in the next permit cycle. Urban impaired streams do not meet water quality standards because they receive too much pollution from the built environment around them. Structural measures are systems that treat stormwater; nonstructural measures include techniques such as enhanced street sweeping or a fertilizer ordinance. The ability to adopt a fertilizer ordinance was specifically added at Ivy's request, to reduce nitrogen loads to the Bay. These two changes are major and have the potential to improve the health of the Bay significantly by reducing sources of stormwater pollution.

***v.* Participating Deeply in Portland's Integrated Planning Process**

Early in her tenure, Ivy reviewed the overwhelming cadre of permits and court decrees pertaining to reducing pollution from Portland's wastewater (sewer), combined sewer (sewer and stormwater), and stormwater systems. Some of these permits or decrees pertained to the City;

others to the Portland Water District (PWD). They set forth proscriptive actions the City or PWD must take to avoid being in violation of their permits and subject to fines and further enforcement actions. Each of the myriad documents stood alone, without any coordinated overview designed to implement terms in a sequence that would best protect water quality. Ivy and Cathy led a boat trip with City and PWD officials during which they advocated for an integrated plan (IP); Portland's Water Resources Manager also lobbied for an IP. As described by EPA, "An integrated plan is a process that identifies efficiencies from separate wastewater and stormwater programs to best prioritize capital investments and achieve our human health and water quality objectives. This approach can also lead to more sustainable and comprehensive solutions, such as green infrastructure, that improve water quality and provide multiple benefits that enhance community vitality."

Portland conducted its IP process in FY20. We were invited to participate in the process, and Ivy attended every stakeholder meeting, including special sessions that focused in great detail on ranking permit terms. Cathy also attended meetings and reviewed draft documents. The draft IP plan should be released at about the turn of the fiscal year.

Some of the anticipated advances include a renewed focus on reducing CSOs into the Fore River, a stringent time table for building storage conduits that will largely eliminate CSOs to Back Cove, development of a monitoring plan to measure success, and a more comprehensive approach to reducing stormwater pollution.

vi. Ensuring Portland Harbor Dredge Occurs with Adequate Environmental Protections

After several years of study, the Portland Harbor Commission applied for permits to construct a confined aquatic disposal (CAD) cell and dredge around numerous wharves and piers on both sides of the harbor. Study results showed that much of the sediment to be dredged contained contaminants at levels toxic to aquatic life. We therefore remained firm in our resolve that removing these contaminants had the potential to improve benthic habitat, contingent upon dredging in a manner that did not disburse contaminated sediment, properly disposed of it in the CAD, and contemplated measures designed to minimize future contaminants from storm and combined sewer flows into the harbor. The first two issues were quietly and largely resolved through a series of meetings with the Harbor Commission and its consultants, to negotiate terms to be included in the permit. These terms allow for an iterative process; if an issue arises during the dredge, new measures can be taken to reduce pollution. The third issue was raised through the IP process. The Harbor Commission appreciated us working with them up front rather than publicly commenting on and objecting to portions of the permits.

i. FY21 Baykeeping Plan

Baykeeping will build on the successes of last year, with a continued focus on climate change and stormwater pollution. We also must contemplate aquaculture siting as an emerging topic and reserve time for unforeseen threats to the health of Casco Bay. As always, this plan does not nor could it adequately detail the many other issues and work Baykeeping covers. Here are the major areas of focus.

vii. Climate Change

Ivy will focus the majority of her efforts on reducing the causes and consequences and impacts of ocean climate change on Casco Bay. She will continue to serve on the CMWG of the Maine Climate Council. In that capacity, she is recommending that the State review existing laws such as the Chapter 500 stormwater rules to reduce stormwater pollution. She sits on two subcommittees, one recommending policies to reduce land-based inputs that cause or exacerbate

the effects of ocean climate change, and the other focused on developing monitoring networks and test adaptation measures. She secured permission for Mike Doan to informally participate in the monitoring discussions. Ivy has stepped back from leadership in MOCA, but will participate from time to time in MOCA activities.

At a federal level, Ivy will continue to track policies and budgets related to climate change. She has good networks for information through our Congressional delegation, the Waterkeeper Alliance, and the Ocean Conservancy, among others. In consultation with the Executive Director, she will continue to sign us on to letters or draft select testimony supporting favorable policies and opposing rollbacks of necessary environmental laws.

At the local level, staff will track Portland and South Portland's One Climate Future and other local resiliency initiatives to explore relevant ways for Friends of Casco Bay's work to dovetail and support these efforts.

viii. Stormwater Pollution

Stormwater is a leading source of pollution to Casco Bay because it carries a varied mix of nitrogen, bacteria, oil products, pesticides, and other contaminants that run off the landscape. Stormwater is both a point source and nonpoint source pollutant. Nonpoint source stormwater pollution occurs when precipitation, including ice and snowmelt, flows across the landscape directly into waterways. It can be especially toxic when it flows over areas that have a high percentage of impervious cover (IC) from urban development. This type of pollution is generally unregulated by the Clean Water Act, because it does not flow through pipes or other manmade conveyances. Stormwater that flows through piped conveyances such as larger municipal stormwater systems (MS4s) or combined sewer systems (CSOs) is regulated by permit under the CWA. MS4s are covered by a general permit that renews every five years; CSOs, because they also carry sewage, are regulated under the **Maine** Pollution Discharge Elimination System (**MPDES**) permits.

Last year's plan called for reducing stormwater pollution by strengthening the MS4 permit and figuring out means to implement the Impervious Cover Total Maximum Daily Load (IC-TMDL) used as a way to try to restore impaired water quality. Major steps toward both goals were accomplished through our advocacy on the MS4 permit. Ivy taught a class at the law school to engage students in further research on this topic. In this manner, Ivy gained added research and knowledge to augment her advocacy.

The current iteration of the MS4 permit is a two-step process: a general permit will be issued with terms that apply to every permittee, followed by an individual second step permit specific to each permittee with additional terms applicable only to that permittee. In FY21, our work to reduce stormwater pollution will entail reviewing each and every second-step MS4 permit issued to municipalities and other permittees in the Casco Bay watershed. Reviewing and commenting on each second-step permit—at least 14 of them—will take a considerable amount of time and attention.

In FY21, Ivy will advocate to reduce stormwater pollution through the Maine Climate Council, helping to develop a series of recommendations to review and strengthen existing state laws and regulations. The goal is to strengthen existing laws and identify gaps where new laws are needed. This will be a major undertaking.

Ivy will continue to deepen her knowledge of stormwater solutions, including a trip to the UNH Stormwater Center with other Waterkeepers in May, and continue other local collaborations.

ix. Nitrogen Pollution

In FY20, we saw increasing indications of nutrient pollution in some areas, and signs of success in less nitrogen pollution in one area.

In late spring, our Water Reporters started documenting and tracking what became 18 nuisance algal blooms in coves of Casco Bay. While we did not investigate every bloom, of those we did visit, some could be traced to a source—notably, one to a cistern, another to a farm, and others appeared to be caused solely by ground water seepage. Eighteen blooms is a sharp increase over what has been documented in prior years, an indication of an increase in the number of Water Reporters and also likely an increase in the actual number of blooms occurring. Nitrogen pollution can come from point sources (notably discharges from sewage treatment facilities and overboard discharges) and from nonpoint sources (especially stormwater runoff and air deposition).

In FY 21, Ivy will work with a prior extern on a publishable paper that will critically examine New Hampshire’s failed attempt to develop numeric nitrogen criteria, to assess whether or not we should pursue development of such criteria here. Although we successfully advocated for passage of a Resolve in 2007 that mandated development of numeric criteria, a nitrogen standard or limit to the amount of nitrogen allowable in coastal waters, we have been more effective at reducing nitrogen pollution through adaptive, qualitative means, such as getting discharge limits written into permits. We have avoided protracted legal fights over the scientific basis for criteria while crafting meaningful solutions.

In FY 21, Ivy will continue to track the progress of Portland and South Portland in reducing nitrogen loads in their wastewater effluent. During the summer of 2019, Portland (the East End Wastewater Treatment Facility or EEWWTF) reduced its historic load of 2400 pounds/day by about 64% between May and October. The prior summer, the EEWWTF achieved a 70% reduction. Though we can’t be sure of the connection, it is interesting to note that for the second year in a row, we saw no algal bloom in outer Back Cove. In 2019, the eelgrass population near the East End outfall began to rebound. These signs of restored health indicate the positive impacts of reducing nitrogen loads to Casco Bay. The South Portland treatment plant, another large source of nitrogen, is just beginning its work to modify operations to reduce nitrogen. Ivy will track that work. Ivy also will track other major wastewater treatment plants, with an emphasis on discharges to areas showing signs of eutrophication.

In FY21, Ivy’s major work to reduce nitrogen pollution will be through the Maine Climate Council.

x. Fertilizer and Pesticide Ordinances

Ordinance work at the local level is a fundamental platform for Baykeeping work. While we continue to educate our stakeholder colleagues and the public about impacts to the Bay and changes in practices and behavior, ordinance work drives home the point that education alone has not resulted in sufficient changes in behavior. Ordinance work provides a key nexus for our science, community engagement, and advocacy for the Bay. Further, we have seen a ripple effect of ordinance adoption, not only from one municipality to another, but also up to the state level (such as Portland’s Green Packaging ordinance on whose task force Cathy served).

We have helped several Casco Bay communities draft ordinances to limit pesticide and fertilizer use. Maine is fortunate to be one of only 7 states and Washington, DC that still retain the home rule power to pass local legislation restricting pesticides.

Here is a summary of our work with communities thus far.

- South Portland's pesticide ordinance: Went into effect for public property on May 1, 2017, and for private property on May 1, 2018. South Portland has developed a robust education plan, which we helped inform. We also were one of the few nonprofits invited to participate in a city-sponsored Organic Field Day at Bug Light Park on September 29, 2018. Nearly a dozen lawn care professionals demonstrated best practices in organic lawn care at an all-day event launching the city's Grow Healthy South Portland program.
- South Portland's Fertilizer Working Group: Cathy is serving on South Portland's fertilizer working group, appointed by the City Council to draft its fertilizer ordinance. Other communities are waiting to see the results.
- Portland's pesticide ordinance: The City of Portland passed a pesticide which went into effect for city staff on July 1, 2018 and January 1, 2019 for residents. Portland is working on its public education plan.
- Town of Falmouth pesticide/fertilizer ordinance: We continue to encourage the Town of Falmouth and its Conservation Commission to pass a modest pesticide/fertilizer ordinance that requires pesticides applicators to report their usage of pesticides and fertilizers in Falmouth and launches its "Living Lawns" educational effort. We have been and will continue to meet with Falmouth Conservation Commission and advise on the draft of the ordinance.
- Town of Brunswick: Mary presented our BayScaping presentation at Brunswick Rivers and Coastal Waters Commission's January 2020 meeting. The Commission was not explicit about their plans moving forward.
- Town of Cape Elizabeth: At a resident's request and invitation from the Town Manager, Mary presented our BayScaping program to the Town Council in September 2019. No action is expected.

In FY21:

- **Fertilizers:** We will continue to be a resource for municipalities as they grapple with limiting the use of fertilizers, the other lawn chemical problem. We believe fertilizers are a greater threat to the environmental health of Casco Bay because of the impacts of excess nitrogen. In light of the increasing occurrences of nuisance and harmful algal blooms, this is becoming a priority issue. We will refer municipalities to the summary of the Casco Baykeeper's analysis of existing laws and ordinances around the country.
- **Pesticides:** We will continue to help municipal officials and community members pass or implement local ordinances to reduce pesticide use. We will keep an eye on how those ordinances are being implemented and how we can assist with education.

***xi.* Aquaculture**

Aquaculture emerged as a hot topic in FY19 and continues to incite public controversy. Residents of Mere Point lashed out against Mere Point Oyster Company's application for a 40-acre lease in Maquoit Bay; the application was approved. Residents along the New Meadows complained about the expansion of aquaculture. In the meantime, limited purpose aquaculture (LPA) licenses, which do not go through a full-blown lease process, increased from 16 in 2007, to 195 in 2017. License sites can cover no more than a quarter acre and seem to be popping up all around the Bay.

In FY20, Ivy tracked a bill introduced by Rep. McCreight to study and take a prospective look at aquaculture siting. The bill was killed in a flurry of emotional and sometimes vitriolic outcry. Aquaculture is being discussed through the Climate Council. There are also modest proposals to address some issues related to LPA licenses, including a Department of Marine Resources bill. At present, Ivy tracks Department of Marine Resources and legislative efforts related to

aquaculture. Aquaculture is here to stay and will be part of Maine's growing response to climate change. Many of the issues involve siting and are beyond our purview. Our focus will continue to be on improving and protecting the health of Casco Bay, and not on the social and aesthetic ramifications of siting decisions.

xii. Legislative Agenda

Our "legislative agenda" covers topics of concern to the health of Casco Bay at the local, state, and federal levels. At the local level, related to stormwater and construction runoff, Ivy will begin a comprehensive review of local stormwater and construction ordinances, if she can secure an extern to assist her. This will assist with MS4 second-step permit review, with climate resiliency, and preparing to strengthen the construction and post-construction terms of the next MS4 permit. Extern assistance has been very valuable, providing as much as 24 hours a week in Baykeeping research capability. The externship program has been flagging at the Law School. Ivy will again teach a course there and occasionally guest lecture. This helps her train and identify potential externs, while deepening her subject matter expertise, and earning credits to maintain her attorney bar license. Without a spring extern, Ivy noted the difference in her ability to perform as much work, so if no good externs arise, our work plan will be cut back accordingly.

At the state level, we continue to participate as a member of the Environmental Priorities Coalition (EPC), a group of about 24 organizations that work together to identify and press for passage of a common legislative agenda. Ivy tracks legislation, identifies bills central to our mission, discusses them with Cathy and Will, and comments on them as necessary.

At the federal level, we will continue to join efforts opposing the weakened definition of Waters of the US (WOTUS). We anticipate continuing to track federal legislation and interceding on issues of priority to our mission.

xiii. Nonpriority Issues of Concern

Below are issues we work on from time to time.

a) Marine Debris and Microplastics

Ivy commented on the NOAA Marine Debris plan and continues to track its implementation. She continues to track and support state legislation designed to reduce marine debris. The legislature has asked the Department of Marine Resources to prepare a report on marine debris. Ivy will track and request a copy of that report.

b) Oil Spill Preparedness

We continue to participate in regional oil spill preparedness, including updating information for the public that would be posted on our website in the event of a spill. Ivy will continue to participate in the ME/NH Area Committee as time permits and has joined the Port Safety Forum, which has a broader focus than the Area Committee (the Port Safety Forum wishes to expand its environmental review and focus).

3. Community Engagement

It takes a community to take care of a Bay. We engage our community in a variety of ways to raise awareness that Casco Bay is essential to quality of life in the region, deepen understanding of conditions around the Bay, inspire the community to champion policies and behaviors that support clean marine water, provide ways for volunteers to get involved, and build affection for our coastal waters.

Portland and South Portland are formulating a joint action plan as part of their One Climate Future initiative, to identify actions we as a community can take together to address climate change. When the action plan is done, we look forward to reviewing it to see how we might adjust our Community Engagement efforts to resonate with and enhance this effort.

j. Volunteer Programs

Volunteers are essential to the success of Friends of Casco Bay. The true strength of our volunteer program is connecting members of our community with our organization, with one another, and with Casco Bay. Our volunteers are some of the most active, outspoken, and well-spoken members of our community. The commitment of these volunteers sends ripple effects through towns around the Bay.

Volunteers are eager to work with us. We pay special attention to creating opportunities for them to engage in activities that align their skills and interests with our organization's and the Bay's needs. We provide volunteer activities that offer a low threshold for participation so that more people are able to volunteer in ways that are meaningful and easily manageable for Staff. We are recording volunteer signups and participation much like we track donor support, using the same database, RE:NXT. At the end of 2019, we mailed over 470 thank you letters to our volunteers, acknowledging specific acts of service during the year. We expect to make this acknowledgement process an annual exercise, and Board Members will have the opportunity to pen thank you messages on the 2020 letters. We will create opportunities for photographers Kevin Morris and/or Deb Dawson to get photos of our Water Reporters to celebrate and promote them as volunteers. Appendix C presents a schematic illustrating various volunteer opportunities in relation to our programs. Appendix D presents our FY20 volunteer metrics.

xiv. Opportunities for Individuals

c) Water Reporter – Our Observing Network

Volunteers around the Bay are becoming Water Reporters, helping us track how the Bay is changing. Water Reporter is a simple-to-use app that enables observers to photograph, describe, and share what they are seeing around the Bay, both good and bad. Having trouble remembering the types of posts we are looking for and the hashtags to use? Think WATERS!

W #wildlife
A #algae
T #trash
E #erosion
R #reportpollution
S #sealevelrise

Volunteers are able to see and comment on others' posts and get insights on what is going on around the Bay. These observations strengthen our advocacy efforts because photos and reports are sent to regulators, enforcers, legislators, and other decision makers, alerting them to conditions in the Bay. We also share these observations with other scientists, which bolsters our collaborative relationships, and through our online communications informing those who are not Water Reporters.

Particular focal points for managing the program in FY21: (are these in priority order?)

- Encouraging even better posts, such as getting as close as possible when photographing (while keeping safety as priority #1), and noting the time of the photo if the post is not

shared in real-time. For those seeing something of concern, we will encourage Water Reporters to “engage your curiosity and gather as much information as you can.”

- We will hold a Water Reporter event, likely June 22, 2020. This will likely include a quick overview of Water Reporter, reminders of how to use the app, and cover why it is important to our work. We will dive into algal blooms and questions folks have around this specific effort and make the connection to climate change. We will be cautious about causality, but share that observations are fundamental. We may explore having this event recorded via video, for use in the future. (A promotional video may also be helpful in future years.)
- We will continue to credit our Water Reporters for their work. We will explore a photo of the month idea where we feature one Water Reporter post that tells the story of the post and provides the opportunity to educate about why it is an important post.
- As we are in transition this year with the retirement of Mary Cerullo, the growth of Water Reporter this year will be organic and will focus on our own events and communications, over seeking out other opportunities. We will encourage Water Reporters at our events to mingle with potentially interested volunteers to share their experiences and build connections. We have designed a Water Reporter button, which helps identify them. We will use the distribution of the bilge skimmers as an opportunity for board members to also promote the use of Water Reporter to the recipients. Board Members may also choose to help promote Water Reporter at their yacht club or marina.
- Sarah Lyman and other Staff are always available by phone or in person to assist any volunteer in setting up and using Water Reporter.

Specific focal points for Water Reporters in FY21:

- Tracking Algal Blooms: One of our strategic priorities is to continue to work for reductions of nitrogen inputs, and algal blooms are indicators of localized nitrogen pollution. In recent years, we have seen an alarming increase in the number and extent of nuisance algal blooms in Casco Bay. Excessive amounts of algae cover tidal flats, smothering animals underneath the mats, preventing juvenile clams from settling, increasing the acidity, and lowering the oxygen levels. In FY21, we will continue to encourage Water Reporters to help observe and track nuisance outbreaks, with Water Reporters visiting their specific location on a weekly basis. We will ask volunteers to start tracking activity at their locations before blooms are expected, in late May or early June, and share presence and absence of algal growth through mid-November or the end of the blooms. Additional information will be requested, including the area of the intertidal zone (low, mid, or high) that the algae is growing in and the thickness of the growth. Instead of sharing percentage coverage estimates, as they did in 2019, volunteers will be asked to share if the growth has increased or decreased since their last visit. We may enlist Water Reporters to document harmful algal blooms, should they arise.
- Sea Level Rise: The Northeast Outlook from the National Oceanic and Atmospheric Administration (NOAA)’s seasonal high tide flooding bulletins show when our area may experience higher than normal high tides. Bulletins are updated seasonally and we will use these to encourage Water Reporters to capture sea level rise images.
<https://oceanservice.noaa.gov/news/high-tide-bulletin>.
- Erosion along the coast: for locations that are likely to change over time, we will encourage Water Reporters to capture what they look like now so we have comparisons if and when erosion occurs. Bluffs and the mouths of streambeds may be interesting locations for capturing expected changes.
- Should any other extreme event such as a damaging storm or significant oil spill occur, we will educate and encourage Water Reporters to post photos and reports. Heavy

storms, erosion, unusual wildlife, wind damage, and pollution are all important impacts to capture.

d) Internships and Externships

An important way we add to staff capacity is to offer unpaid internships and externships. We offer internships to undergraduates and externships to graduate law students. Both provide special opportunities to experience environmental nonprofit work. Students are exposed to a professionally-run, environmental nonprofit working in the larger arena of environmental advocacy, using hands-on science and community engagement. The law student externships provide exposure to a unique blend of legal and regulatory work in an applied setting. We have a strong track record of providing internships that teach students, engage them meaningfully in our work, and help them shape career goals.

Internships/Externships may be offered as often as three times a year: Spring (January - May), Summer (May - August), and Fall (September - December). We require that each intern possess a strong academic background, with course studies in environmental policy, marine sciences, and/or law. Our ideal candidates enjoy working both with Staff and independently. Interns must have superior research and writing skills and a passion for the marine environment.

Our undergraduate internship opportunities are shared with University of New England, Southern Maine Community College, University of Southern Maine, Bates College, Colby College, Saint Joseph's College of Maine, and Bowdoin College.

During FY 21, we may consider the viability of paid internship opportunities in FY22, possibly through Environmental Fellowships or Maine Conservation Corps.

e) Coastal Cleanups

Litter and marine debris that wind up on the shores of Casco Bay can pollute the water, hurt marine life, and impair the quality of life of those who live, work, and play on Casco Bay.

Coastal Cleanups are a great hands-on community service activity for youth groups, scout troops, and corporate volunteer days. The majority of the events we run each year are through corporate volunteer days. Volunteers record data about the trash they pick up, and those data are submitted to Ocean Conservancy's online database, Clean Swell, to help create awareness and public policy for pollution reduction in marine waters.

In addition to running and supporting group activities, we host one or two public cleanups each year. We will participate in Coastweek by hosting a cleanup in the greater Portland area in September. In the event of a significant storm, we will consider organizing additional cleanups to remove debris.

f) Storm Drain Stenciling or Stencil the Streets for Casco Bay

Storm Drain Stenciling is a hands-on way for volunteers to "take to the streets" and create greater awareness about the need to reduce pollution. We provide stenciling kits and easy-to-use instructions to help groups organize stenciling events. There are a number of benefits from this low-cost, easy-to-manage volunteer recruitment activity: community engagement, hands-on activity that helps the health of the Bay, team building, and education. By painting "DO NOT DUMP" messages near storm drains in the neighborhood, people learn about the connection to Casco Bay and become local advocates for reducing stormwater pollution.

During 2020, we will restock and maintain our five stenciling kits and 11 stencils. As stencils need to be replaced, we will create new, smaller stencils, and will make transportation of the

stencils and kits easier. We will continue to work with school groups, scout troops, civic organizations, and corporations looking to complete days of service to stencil storm drains.

g) Other Opportunities and Organizational Needs

Getting a large mailing, such as our Annual Fund, out the door, would not be nearly as efficient if not for the assistance of volunteers. In addition, volunteers will assist with the 30th Anniversary event, the Wild & Scenic Film Festival, and at tabling events hosted by other organizations.

xv. Opportunities for Community Groups and Corporate Groups

During 2020, we will offer activities to community and corporate groups, from mid-May through mid-September. These opportunities will be featured on our website at cascobay.org/community-service-days and will focus on Stenciling and Coastal Cleanups. In April, we will reconnect with interested corporate partners to explore opportunities for this year. Our hope is to have a summer intern lead many of these events.

k. BayScaping: Working with Residents

Our BayScaping program works with Casco Bay communities, both municipal officials and residents, to keep pesticides and fertilizers from polluting the Bay. Our advocacy work with municipal officials is in the Baykeeping section of this plan; here we focus on our work with residents.

A staple of our BayScaping Program has been our neighborhood socials that include a presentation explaining the connections between lawn care practices and water quality in Casco Bay. Our presentations have engaged more than 2,600 people over the years, not including our BayScaping exhibits at dozens of events. We have found that providing evidence of pesticide use in a particular neighborhood, in the form of detections of pesticides in stormwater runoff from pipes in the neighborhood, inspires behavioral change. Explaining that excess nitrogen and ocean acidification are critical threats to the health of Casco Bay encourages homeowners to reduce or eliminate their use of fertilizers. The social aspect encourages positive conformity to a different perspective on lawn care.

In FY21, we will:

- Revise and present BayScaping neighborhood socials as requested
- Revise our BayScaping papers—incorporating sections on best recommended practices to limit or eliminate the need for fertilizers and pesticides
- Continue to spread the BayScaping ethic and share our data on lawn chemicals we believe pose a threat to the environmental health of Casco Bay through seasonal emails, social media, newsletters, and interviews
- Direct people to South Portland’s excellent Grow Healthy South Portland website for information about eliminating pesticides and share educational materials as opportunities arise.
- Refer community members looking for answers to lawn care questions to our helpful BayScaping partners, including SMCC Horticulture, Portland Arborist, State Horticulturist, Maine Board of Pesticides Control, Cumberland County Soil & Water Conservation District’s Yardscaping Coordinator, Maine Landscape and Nursery Association, Maine Arborists Association, Maine Organic Farmers and Gardeners Association (MOFGA), and Master Gardeners

l. Casco Bay Matters Events

We host periodic presentations and panel discussions on issues of current concern through our Casco Bay Matters series, open to the public.

The purpose of Casco Bay Matters is to provide opportunities for concerned citizens and local decision makers to learn about and discuss issues affecting the health of our coastal waters, as we share our data and showcase our advocacy work.

Except for developing content, the logistics for these programs are intended to be relatively easy for Staff.

Our first series, *Ocean Acidification, Climate Change, and You*, was hosted at three locations in March and April 2019. These events helped lay the foundation for getting public support for legislation, LR 510, a bill to create a Science and Policy Advisory Council to address the impacts of climate change on Maine's marine species.

In FY21, we'll explore holding two events in the winter of 2021.

m. Community Events Organized by Other Groups

As the voice of the Bay, we are invited to participate in numerous events each year. Since FY19, we have been prioritizing our own events over those of other organizations, in order to better engage our own long-time and new volunteers and members. For example, we launched the Casco Bay Matters series.

i. Speaking Requests

We are asked frequently to speak about the health of Casco Bay, at gatherings of scientific colleagues, neighborhood groups, municipal boards, and civic organizations such as Rotary Club. Speaking engagements provide an opportunity for us to bring our data and science to the community in a personal and easily understandable form. If we were to accept all the requests we receive, staff members would be out several evenings and weekends each month. Consequently, we weigh how these commitments may support or further the work outlined in our operating plan. We take into account our longstanding relationships with our work partners, Board members, and like-minded organizations. We consider geography and fundraising opportunities (such as targeting communities in which we may host a house party, upscale retirement communities, or zip codes to which we may do an appeal). We envision our presentations in the community as one more facet of our relationship-centered approach. We will assess each request in terms of time commitment, audience, effectiveness, and potential benefits, such as generating memberships or other engagement. When we accept, we shall do so strategically.

ii. Tabling

When we agree to participate in tabling at community events, we use the same assessment filters as described above. We often invite a Board Member or other knowledgeable volunteers to represent our organization.

n. Casco Bay Curriculum

In FY20, we identified and updated those classroom activities of *Casco Bay: A Changing Estuary* that we wanted to continue to make available. We retired activities that no longer seemed relevant or compelling.

This curriculum includes an introduction to the characteristics and marine ecology of an estuary such as Casco Bay, along with activities based on how climate change will impact the Maine coast and the Gulf of Maine through sea level rise, warming waters, our fractured food web, and the changing chemistry of our oceans. Older students analyze what they can learn from our continuous monitoring data. The curriculum was trimmed to activities targeting (but not restricted to) the following topics and educational levels:

- What is an Estuary?: five activities for Elementary grades (grades 3-5)
- Climate Change: four activities for Middle School (6-8)
- Using our Data: various ideas for High School (9-12)

In FY21, we will:

- Seek educational expertise to brainstorm and develop ideas for using the data on our website from the Continuous Monitoring Station
- Continue to provide community service opportunities to school and youth groups on “What you can do to help our Bay” by sharing curriculum activities that complement storm drain stenciling
- Share the Continuous Monitoring Station page of our website, updated monthly, with educators inquiring about educational opportunities for engaging older students, by examining, analyzing, and asking questions about current data
- Consider how best to disseminate curriculum activities without conducting teacher training workshops and how best to respond to requests for curriculum materials
- Consider incorporating Water Reporter into activities on sea level rise and nuisance algal blooms

4. Pumpout Program

Our Pumpout Program plays multiple and essential roles – direct reduction of sewage discharges into the Bay, education of boaters through the program’s ambassadorial function, and liaison between DEP and those marinas whose pumpout facilities are in out-of-service mode. The effectiveness of this program hinges in large part on the boating and mechanical skills, as well as the character of the person who fills this position. Our Pumpout Coordinator and Captain Jim Splude, an exceptional ambassador on the Bay, will return in 2020, his eleventh season with us. Customers and dock wranglers around the Bay respect and welcome Jim, who continues to provide excellent service and good cheer everywhere he goes on the water.

We launched our new pumpout boat, *Headmaster*, in June 2019. This vessel has more than twice the capacity of the old one, and this past season we handled 78% more waste than in the prior year.

In 2017, we went to paperless invoicing for pumpout customers. This allows customers to pay by check or pay online through our website. This has saved significant staff time and has resulted in a quicker turnaround in customer payments. Office Manager Jeff Fetterer continues to work with Jim to find increasingly efficient ways to handle customer information, communications, and billing.

Thanks to our work with the state’s Pumpout Program, Casco Bay was awarded the first No Discharge Area status in Maine in 2006. Since then, many other regions along the coast of Maine have attained No Discharge Area status. In order to attain this, regions have to have a requisite number of pumpout stations, and, in order to meet the spirit of the law, as well as the letter, these stations need to be operational and accessible at all tides. We will continue to notify DEP when stations are nonoperational.

See Appendix E for Pumpout Metrics 1999 – 2019.

B. Communications and Development

Communication is paramount for advocating for policies and changes needed to improve and protect the environmental health of Casco Bay. It is crucial to tell stories that resonate with those who live, work, and play on the Bay in order to galvanize support for our mission, to show the value of our work, to inspire giving, and to engage community members in our efforts. We recognize that both our fundraising and outreach efforts can be described as building relationships through storytelling. Through cultivating and maintaining relationships with individual supporters and with individual members of the media, we are building a stronger, more visible, and more sustainable organization.

Our Communications and Development team shares story ideas, timelines, and language for outreach materials and proposals, with each other and with program staff. We work closely with program staff to ensure our stories are accurate and up-to-date. We process many of our ideas with the Board's Community Engagement Committee, which meets monthly, year-round. In addition to our "normal" communications work, this year we will be onboarding a new communication staff person in the wake of Mary Cerullo's retirement. Integrating the new staffer into the culture of our organization will be key.

5. Communications

o. Telling, Showing, Sharing, and Promoting our Stories

Stories are the most effective communications tool. Communications staff maintain an editorial calendar to plan and track potential stories throughout the year. We are ever-aware of development deadlines (such as foundation proposal due dates and annual fund mailings) and programmatic efforts (such as a volunteer training event or a legislative hearing). We will work to adapt the stories for use in our grant proposals—and vice versa. Showing is often more important than telling: we will continue to use eye-catching photos and produce short videos that highlight our work. Producing stories is only the first step; we have to push them out into the world. We continue to use a "digital first" strategy, sharing stories on our website, via email and social media. Our goal is to produce a weekly or bi-weekly email that features one major story with an eye-catching photo and a great subject. We promote stories, as appropriate, on Facebook, Twitter, and Instagram. We track the metrics of the stories we share online, via email, our website, and social media. We use these data to consider the most effective stories for our printed publications, i.e., our annual report and the two print newsletters we release each year.

p. Our Story Priorities for FY21

While there are many angles, lenses, frames, and ways we can tell our stories, there are a handful of specific subjects that we will prioritize in FY21:

- Our Climate Change and Casco Bay Fund public launch, including how our science and Continuous Monitoring Station work help move the needle for a more protected Bay (See Development section on Climate Change and Casco Bay Fund campaign).
- Our Baykeeping work on climate change, including our work with the Maine Climate Council and One Climate Future. We can include ways community members can help address climate change.
- Our Water Reporter community engagement efforts, including a "photo of the month" series on posts that really made a difference in our work.
- Our events—including our 30th Anniversary Celebration and Members Annual Meeting, our film festival, our 2nd Casco Bay Matters Series, and other public events.

q. Audiences

An important question in each specific story we are telling is “Who is our audience?” Generally, our priority audience is our existing donor base (2,400 households that have supported our work over the past two-year period). We also want to encourage the broader public to become more involved with our work. We have nearly 28,000 constituents in our database. Of these, most have never donated or volunteered with us, while some are lapsed donors. For some people we have only email addresses, and for others we have only mailing addresses. For some stories and efforts, our specific audience may include lapsed supporters, volunteers, boaters, residents in specific communities, etc. Our intent is that through good communications, no matter what their preferred medium, we will recruit the support of the **Not-Yet Donors and Not-Yet Volunteered** and **Lapsed Donors and Past Volunteers**, and they will move up into the **Recent Donors/Members and Volunteers Category**. Social media and traditional media stories support our communications to all these audiences.

	Just Mail	Mail and Email	Just Email	subtotals
Recent Donors/Members and Volunteers*	629	2,352	103	3,084
Lapsed Donors and Past Volunteers	1,961	1,985	0	3,946
Not-Yet Donors and Not-Yet Volunteered	15,365	4,333	77	20,791

* Households/foundations/businesses that donated in FY19 or FY20, or individuals who volunteered during those two years.

** Our database houses more than 27,976 constituents. Each year, in our development efforts, we try to focus on specific regions or populations, to recruit new members/donors. This also allows us to do recruitment in manageable, affordable chunks.

From last year's Operating Plan:

	Just Mail	Mail and Email	Just Email	subtotals
Recent Donors/Members and Volunteers*	844	1,849	38	2,731
Lapsed Donors and Past Volunteers	1,798	1,043	1	2,842
Not-Yet Donors and Not-Yet Volunteered	13,804	4,798	2,700	18,602**

* Households or businesses that donated in 2017 or 2018, or individuals who Volunteered during those two years

** Our database houses more than 22,000 constituents. Each year, in our development efforts, we try to focus on specific regions or populations, to recruit new members/donors. This also allows us to do recruitment in manageable, affordable chunks.

r. Website

Our website is the epicenter of our communications efforts. It is an ever-expanding story bank of content that represents our current positions on key issues and describes all areas of our work. Staff, Board Members, Volunteers, and the general public can head to our website to learn about an issue and see images that reflect our values. Our website helps us all use consistent language and messaging across our work areas and communications channels. Whether we are sending a newsletter, sharing an email, posting on social media, or even having buttons made, we almost always cite our website so folks can read more and dive deeper. It is a key platform for engagement and is essential to our storytelling and our branding.

s. Friends of Casco Bay Events

In-person events have been an important strategy for making new *Friends* for the Bay and keeping in contact with longtime supporters. Communications and Development staff help organize all of our public events. We will use our events, as appropriate, to leverage support for our advocacy priorities. Events we are organizing this year include:

- 30th Anniversary Celebration at Ocean Gateway, April 29, 2020, from 4:45 to 8 p.m. The event will include: Members Annual Meeting, Reiche Elementary School Chorus performance, Gulf of Maine poet Gary Lawless, the premier of our Knack Factory-produced film, congratulatory videos from Senator King, Senator Collins and Representative Pingree, Casco Baykeeper Ivy Frignoca, and Cathy Ramsdell announcing the public launch of our Climate Change and Casco Bay Fund.
- Water Reporter Gathering, June 22, South Portland (see Community Engagement section on Water Reporter)
- Cape Elizabeth House Party, July 30, 2020. Longtime supporters Richard and Laurel LaBauve will host this event at their mid-century modern home.

- Maine Outdoor Film Festival, July 30-August 2, 2020 Although we are not the organizers of this event, our film will be featured at the festival, and we will table at a showing on Casco Bay.
- GreenDrinks, August 11, 2020 on Peaks Island This is a good opportunity to share our work with younger people, raise \$1,000 toward our work, and recruit volunteers.
- Our 13th Annual Wild & Scenic Film Festival will be on November 7, at USM, Abromson Auditorium, from 2-6 p.m. While this might receive only a brief mention in this plan, it is worth noting that we have an excellent template for producing this event, which involves months of buildup, with everything from raising sponsorships to selecting films and staffing the event with Volunteers, Board and Staff, with more than 450 attendees.
- We will host our Donor Appreciation Evening on Thursday December 3, 2020 at the Cumberland Club, from 5-7 p.m.
- Dates to be determined for second annual Casco Bay Matters events: will likely be January-March 2021.
- See Appendix G for a list of (some of) the events we plan to host this year.

t. Building Relationships with News Media

In FY20, our work was cited more than 55 times in media stories, including articles about our Casco Bay Matters series and our Water Reporter efforts [see Appendix F for a complete list]. We will continue to build relationships with news outlets, journalists, and reporters in order to tell our stories to the general public. We have an interview planned with WCSH's 207 in honor of our 30th anniversary to showcase our work aboard the Baykeeper boat.

u. Bay Papers

Bay Papers have evolved significantly over the years. The Bay Paper concept began as elevator speeches developed to help our board members better articulate our positions on issues we are tackling. The Board encouraged us to share them with the public. We then designed them to be accessible primers to help our community understand specific issues at a glance while offering ways we can each take action to reduce negative impacts on our coastal waters. We have found that they are best used as handouts at our public events, and, beginning with our Casco Bay Matters series, we developed them to be used for specific events.

In FY21, Communications and Development Staff will:

- Meet weekly to evaluate story ideas that may resonate with our audiences, identify priority stories for production, and assess progress on the stories in development. We will collaborate with Program Staff to ensure accuracy and that we are creating content that helps move the needle on the issues.
- Meet monthly with the Community Engagement Committee of the Board. We will explore new ideas and use the committee as a sounding and grounding board as we develop ideas for stories, materials, and events.
- Onboard a new communications staffer (likely, a Staff Writer – job description will be completed during the first month of the new fiscal year). We currently envision this position to be our “in-house journalist,” helping us to collect, record, and tell our stories and to help us push them out via social media and other methods. An ability to write well, fact check, and collaborate is vital to this job.
- Once we have our new communications staffer aboard, produce four stories a month to engage our audiences. Until then, we will produce as many stories as we have capacity for—at least one or two new stories a month.

- Prioritize stories focused on our Climate Change and Casco Bay Fund and our science and related outreach, Baykeeping efforts on climate change, Water Reporter, and special events.
- As part of our Water Reporter communications, develop a “photo of the month” story highlighting a post that helped make a difference.
- Utilize our Knack Factory-produced documentary to recruit and retain members and volunteers and to let the general public know about our work
- Continue to tell our stories through video when appropriate. Video ideas include:
 - 30-45 seconds on why our 30th anniversary event will be awesome to attend
 - A short segment on the importance of participating in our capital campaign
 - A “thank you” message for when we announce completion of the campaign
 - A short segment on our Maine Climate Council work
 - A how-to or recruitment video for Water Reporter
 - A tour of our Cage of Science
- Work to segment our email and mailing lists based on specific audiences (e.g. donors, volunteers, residents of a specific town or neighborhood, etc.).
- Use the Operating Plan to inform any changes to the website. Periodically, we will review key pages of the website to update and revise as needed. We will update our website with four new stories a month and promote our stories through email and social media, directing our audience to our website. We will consider completing some behind-the-scenes work to make it easier for folks to find our content when searching online.
- Develop a “bilge skimmer” package that board members will use to reach out to boaters. This has the practical goal of decreasing bilge pollution while encouraging boaters to become Water Reporters and support our work.
- Continue to improve our presentations by scheduling practice talks with staff internally prior to public events.
- Support our Baykeeping and advocacy efforts — especially when we need to galvanize public support for an issue.
- Advance our visibility through cohesive visual branding in our documents, publications, buttons, website, emails, social media, presentation materials, displays, signage, and other materials. Our materials — printed, electronic, and otherwise — will reflect our organizational values.
- Update our BayScaping handouts and develop Bay Papers to hand out at our 30th anniversary event and our Casco Bay Matters series.
- Board member David Kaufman is exploring having specific news stations begin a deeper relationship with us; these opportunities will be vetted by staff as we look at the opportunities and challenges ahead.
- Consider developing posters targeting local marina customers and yacht club members—the posters will be a reminder of our work to protect the Bay and include a “join us” and/or “volunteer” message.
- Develop two printed newsletters (sent in March and October) and a printed annual report (sent in early November).
- Finish the branding document, started last year, to help Staff and others understand and highlight the characteristics and values that make Friends of Casco Bay distinct from other organizations and vital to our community. This may be an especially important tool as we onboard our new communications staffer.
- Continue to employ outstanding photographers, including Kevin Morris, to continue to evolve the quality of the visuals in our communications.
- Build on and help further develop the in-house design and artistic skills of Design, Data, and Development Associate Sara Biron, who designs print and web materials such as:

invitations, newsletters, buttons, pamphlets, displays, social media images, PowerPoint images, Bay Papers, signs, posters, business cards, stickers, and other design projects as needed.

- Stay alert for infographics that we may come across that we wish to emulate. We will ask, “How could we create something similar to tell a Casco Bay story?”
- Organize and take part in our events listed above and take advantage of opportunities for other events as appropriate.
- Organize smaller community engagement events described elsewhere in this plan, such as Water Reporter trainings, coastal cleanups, storm drain stenciling events, and BayScaping socials.
- Continue to buy sponsorship time on Maine Public Radio, to promote selected events or support fundraising appeals.
- Use our initiatives to garner stories and/or op-eds in media outlets and personalize our media outreach. We will tailor specific story ideas to pitch to targeted news media outlets or to individual reporters/producers. We will consider inviting individual reporters (especially TV) to accompany us on our boat or any time we have a highly visual activity. We will generate media alerts and send invitations to individual reporters for events and conferences we sponsor.
- Glean the most up-to-date best practices for these tools by scouring the internet, attending workshops, and participating in webinars.

6. Development

The mission of the Development Office is to ensure Friends of Casco Bay’s long-term success through developing and sustaining diverse funding sources. Relationship building is crucial to our work. Key to this effort is being able to tell a story that highlights our effectiveness and that resonates with a donor’s understanding of the world. We will work to integrate our stories into our development work and our development work into our communications efforts.

We recognize that our organization continues to operate in a challenging economic environment. The gap in income inequality among individuals in our community and across the country continues to widen. Government support will continue to diminish as government agencies are hamstrung by partisan politics (though we are feeling more hopeful at the state level at the moment) and stagnating budgets. The new tax law is already impacting philanthropy, encouraging larger donations by those who have wealth and discouraging donations by lower income Americans who, when using the standard deduction, can no longer itemize charitable gifts. Increasingly, corporate support is tied to quid pro quo agreements that Friends of Casco Bay does not always find acceptable. Yet, our community values our work, and there is capacity among individual donors, foundations, local businesses, and government agencies to support it.

We have detailed plans to continue to grow our individual and foundation income — and to buttress our government and corporate line items. The plans are donor-centered and focused on building long-term relationships, keeping in close contact with our supporters, and deepening their commitment to our work.

As with last year, a large focus of our work will be on our Climate Change and Casco Bay Fund Campaign. We are still actively in the “quiet phase,” hosting meetings with donors mostly one at a time. We will begin the public phase of the campaign at our 30th Anniversary Celebration on April 29, 2020. While we have until October 2021 to finish the campaign (per the board’s original resolution), we hope to reach our \$1.5 million goal this fiscal year. We recognize that

our Executive Director and Communications and Development Director will continue to spend significant amounts of time on this effort.

v. Climate Change and Casco Bay: A Fund for Technology, Monitoring, and Community Engagement

Friends of Casco Bay has created a fund to be used over the next ten years to understand how Casco Bay is being affected by climate change. Our goal is \$1.5 million. The Fund will be used for equipment and staffing to:

- Deploy three Continuous Monitoring Stations collecting hourly data 365 days a year in three different regions of Casco Bay.
- Upgrade all existing data sondes and sensors and add the additional inventory of equipment needed to monitor water quality conditions both at the Stations and during other seasonal sampling and investigative work.
- Service and maintain the Stations for a decade.
- Manage and present the data, online, in print, and in public forums.
- Communicate how conditions are changing and engage our community in exploring ways we can adapt and mitigate.
- Advocate for changes in policies and behaviors to address the impacts of climate change.

We are coordinating the campaign through the Community Engagement Committee of the Board. The Board's participation, advice, wisdom, and social capital are integral to our success. We have 100% participation in the campaign from Board and Staff! The Campaign is being used to raise funds from existing donors, to garner planned gifts toward our organization, and to encourage new supporters to give to us. To date, we have raised more than \$1,139,000 in gifts, pledges, and planned gifts.

In FY21, for the Campaign, we will:

- Use our 30th Anniversary Celebration and Members Annual Meeting (April 29) as the launch of the public phase of the campaign.
- Continue to meet with our most generous donors and high-level prospects with the goal of raising 80% of the funds in the silent phase. We will continue to meet one-on-one with donors after the public launch of the campaign in order to reach our \$1.5 million goal.
- Develop a mailing for the public launch of the campaign that will go to 7,200+ households, including all of our past supporters and to non-donor prospects in the watershed.
- As appropriate, use special appeals during our annual fund seasons to encourage support for the campaign.
- Submit grant proposals to foundations as appropriate in support of the campaign.
- Use email and social media to “nudge” support for the campaign.
- Leverage our Continuous Monitoring Station and data into stories and infographics in support of the Campaign.
- Work with the Board, especially the Community Engagement Committee, to identify potential supporters of the Fund and to provide input on our materials.
- Design various materials to help promote the Anchor Society, our planned giving circle of donors.

w. Individual Giving

- Even with changes to the tax laws, individual giving has the highest potential for growth and will be a key factor in our long-term success. We will reach our membership and individual giving goal through continuing to use renewal mailings, prospect lists, house

parties, our Annual Fund, and through special appeals for specific programs and projects. We will expand our membership through mining our RE NXT Pro database. We will update our renewal letters and Thank You letters and continue to personalize our asks. Our Annual Fund mailings will be sent in June (a month later than normal due to the campaign mailing) and late October. New members will continue to be an important part of our base building.

In FY21, we will:

- Continue to look to the Board to help our efforts through signing renewal letters, penning notes on Annual Fund and special appeal letters, taking part in our Climate Change and Casco Bay Campaign, inviting friends, family, and colleagues to our events, and offering gift memberships.
- Use our membership cycle to renew existing members, re-recruit lapsed members, and encourage lower-level donors to become Calendar Islands Circle (monthly) donors. We may try an annual fund-style mailing to a specific set of donors to encourage them to become Calendar Islands Circle (monthly) donors.
- Encourage increased gifts and additional gifts through Annual Fund mailings and through Special Appeals for support.
- Gain new members through house parties and through targeted acquisition mailings. We will acquire lists through InfoUSA, the federal boat registration list, and assess other possible government lists.
- Present numerous opportunities to support us by giving for program work, giving to our campaign, supporting specific restricted funds, and giving toward other specific needs.
- Host a house party in Cape Elizabeth (July 30) and look for other house party opportunities. Individualized plans for each of these events will be made in conjunction with the hosts. Host committees, food, drink, etc., will be tailored for the community in which the event is being hosted.
- Continue to recruit for our Anchor Society, our planned giving circle. We will highlight Anchor Society members via a display at our 30th Anniversary Celebration and begin distributing Anchor pins to current members of the society.
- Explore ways to highlight how the new tax law may benefit those who have philanthropic intent, for example, by encouraging them to give to us through Donor Advised Funds, through multi-year pledges, or through doubling up every other year and designating two-year use of funds.
- Consider development of a kids' membership package.
- Hold our annual Donor Appreciation Evening at the Cumberland Club.
- Encourage individual giving through the Boat Donation Program which exists in partnership with Maine Maritime Funding Association. While we cannot depend on this program for a steady stream of income, we can "make our luck" happen through distributing fliers about it, promoting our donation program on social media, our website and through our newsletter, sending at least one email to boat owners/pumpout customers about our boat donation program, and working with Maine Maritime Funding to host an educational session for marina and boatyard operators or to do a mailing to boat owners and marinas about the boat donation program.
- Cultivate and steward our donors through personal visits, boat ride visits, emails, update mailings, invitations to follow us on social media, and through inviting them to our in-person events. Donors who give \$100 or more or who are Calendar Islands Circle Donors will receive a special update about our work. Our most generous Donors will be invited to our annual Donor Appreciation evening.
- Explore ways to encourage giving to help offset our eventual move off campus.

x. Foundation Giving

We will develop boilerplate proposals for:

- General Operating Support (unrestricted)
- Ocean Acidification and Climate Change work
- Baykeeping
- Climate Change and Casco Bay Fund for Monitoring and Community Engagement
- Continuous Monitoring Station and Water Quality Monitoring
- Water Reporter
- Capital support (e.g. new office/move, cloud service, new server, equipment)
- Other endeavors as appropriate (Casco Bay Matters, Storm Drain Stenciling).

We will meet all applicable deadlines, including reporting requirements, giving Cathy enough time to review proposals and budgets. When we meet deadlines, including the “long shots,” we garner some unexpected grants. We will send out more than 100 foundation proposals. We will attempt to meet with trustees of foundations when possible and appropriate. We will use photos in our proposals to make them more dynamic and to better tell our stories, when possible and appropriate. The nature of foundation fundraising is fickle. Very few foundations fund the same organizations with any regularity. Others will not consider proposals from an organization they have funded in the past year. We will review Maine Philanthropy Center’s updated Foundation Directory and add new potential funders to our plans.

y. Corporate Donations

We have a corporate ask schedule much like our foundation plan. Our prospect list will include companies mined from our database, Board connections, other nonprofits’ annual reports, MaineBiz lists, and companies that use “Casco Bay” in their names. We will work to connect the health of the Bay with business interests in our region. We will host our 13th Annual Wild & Scenic Film Festival, November 7, 2020. Through sponsorships, this event is an excellent way to leverage corporate support for Friends of Casco Bay. Because ticket sales cover most of the direct costs of with the event, 100% of sponsorships go to supporting all the ways we protect Casco Bay. This event will build on our past success.

z. Government Grants and Contracts

Our Pumpout Program supported by Maine DEP via US Fish and Wildlife Service funds, and the Casco Bay Estuary Partnership (CBEP) supported by EPA funding, together are the heart of our government support. CBEP funding has declined considerably from past fiscal years yet continues to support the maintenance of our Yarmouth Continuous Monitoring Station. We will continue to work to remind CBEP of the importance of supporting our work on behalf of the Bay. We will also try to raise government funds through Maine Outdoor Heritage Fund grant proposals, South Portland Water Resource Protection, Portland Water District, EPA proposals, NOAA proposals, and other government opportunities.

aa. Organizational Memory: Tracking and Reporting

We are continuing to get the most out of our database, RE: NXT Pro. Our membership renewal process is heavily automated through NXT. In FY19, we began using NXT to track and manage volunteers, improve our online giving methods, sell tickets for the film festival and other events, and to better manage our membership processes. We will continue to make our contact records thorough and reliable. We will track our contacts with donors and create accurate solicitation and results reports from NXT. We will continue to work to harness the numerous capabilities of NXT and, where appropriate, train other staff members on using the database.

bb. Other Fundraising Efforts

Should we find that we have the opportunity to move into new office space during this fiscal year, we will craft a fundraising strategy to help offset costs, identify in-kind opportunities for donors, and leverage the move as a great visibility opportunity for the organization.

cc. Remaining Nimble

We will take advantage of opportunities as they present themselves. We will remain open to imaginative ideas, learn from mistakes, and build upon successes. We will revisit and evaluate this plan monthly. We will revise our development strategy and tactics as needed.

C. Technology and Capital Assets

In FY20, we:

- Upgraded the Continuous Monitoring Station in Yarmouth with the newest sonde technology and sensors.
- Outfitted and launched our new pumpout boat.
- Sold 3 old boats: old pumpout vessel, Lund, and a small whaler that had not been in the water for a decade.
- Sold a wide variety of unneeded boat parts for several hundred dollars.
- Replaced the battery backup system for the network server.
- Upgraded 4 computers that have Windows 7 operating systems, which will no longer be supported after January 2020.
- Upgraded to Office 2016.
- Our computer consultants, Systems Engineering, put a malware security patch on each workstation and the server.
- Upgraded our storm drain stenciling kits with well-designed rolling tote boxes with handles that are easier to move around and have better capacity for the stenciling supplies.
- Worked with Knack Factory and completed the short film about Friends of Casco Bay.
- Continued to look at available office space.

In FY21, we will:

- Continue to upgrade computer workstations, as we have, on a revolving basis.
- Move our offices.
- Identify and acquire a new phone system in conjunction with our move.
- Upgrade one or two iPhones for better social media photos and videos.
- Assess whether moving our server files and capacity to the cloud will save money and improve security and access. We will engage Systems Engineering, see what they say, then consult other vendors.
- Work with a nearby trap company as we custom design new cages of science for our continuous monitoring stations.
- Establish two additional monitoring stations, after we have finished fundraising for the Climate Change and Casco Bay Fund.

We have learned that certain donors respond very favorably to making contributions for specific “hard assets,” and so to that end, we will engage in specific campaigns designed to support our ongoing capital needs. This year, those support for technology and community engagement through the campaign, and support (including In Kind) for our move.

D. Management and Administration

7. Staff

We anticipate two significant staffing changes this year. With Mary Cerullo's retirement at the end of FY20, we will launch a search this spring to hire a Staff Writer. As fundraising for the Climate Change and Casco Bay Fund wraps up (we hope) late in FY21, we will launch a search for a Science Assistant; our intent is to bring someone aboard before we establish the two additional monitoring stations. This year and next we will be devoting considerable attention to "onboarding" these two new members of the team.

Here is the composition of the Staff at the beginning of FY21, showing the year each person came aboard:

Mike Doan, Staff Scientist and Boat Captain	1997
Cathy Ramsdell, CPA, CGMA, Executive Director	2003
Will Everitt, Communications and Development Director	2006, 2010
Jeff Fetterer, Office Manager	2007
Jim Splude, Pumpout Coordinator and Boat Captain	2010
Sarah Lyman, Community Engagement Coordinator	2011
Sara Biron, Design, Data, and Development Associate	2014
Ivy Frignoca, Casco Baykeeper	2016

Staff turnover remains low and that is invaluable, as we are able to maintain momentum as we deepen our abilities to work together. Staff members continue to excel at learning, deepening their individual skills, and we continue to find new and ever-more effective ways to learn together and work together. Sometimes this means having hard conversations, as well as inviting dissent during program and event planning meetings, as we have learned that constructive dissent as we think together inspires new ideas and makes for better outcomes.

We have assembled and retained this excellent team by maintaining a good benefits package and by running a fair and flexible workplace. In return, we expect high quality engagement, exchange, and discourse, along with collaboration, appreciation of the big picture, and attention to detail. We provide professional development opportunities, such as attending classes, workshops, trainings, seminars, and conferences. Staff members also provide teaching content on various subjects in a wide variety of contexts, from classes at SMCC and UMaine Law, to the Maine Association of Nonprofits.

We update our emergency succession plans annually, for use in the (we hope unlikely) event of an unplanned temporary absence of staff (the E.D. asks for updates during the annual staff review process). These plans identify the key roles and responsibilities of each staff person, which staff members would fulfill certain responsibilities in one's absence, and identify the activities so unique to that individual that the activity simply might not be attended to until their return.

Compensation was frozen in the FY09 / FY10 / FY11 budgets, and when revenue goals were met, an accrued bonus that had been included in the budget was released and in two cases supplemented with additional funds. The FY12 budget contained a 3% increase in compensation integrated into the numbers, not accrued, and this was greatly appreciated by Staff. The FY13, FY14, and FY15 budgets each contained a 2% increase; in addition, a couple of modest adjustments were made during FY13 and FY15, for merit and for partial compensation in lieu of

health insurance for those leaving the plan to join spousal coverage. The FY16 budget included a 3% increase. The FY17 and FY18 budgets contained a 2% increase, with a couple of modest base adjustments. The FY19 budget contained a 3% increase, with some small adjustments to base pay. The FY20 budget contained a 4% increase.

The FY21 budget proposes a 4% increase, with three adjustments to base pay. Overall, this seems like a wise and modest investment in our intellectual capital, given the continued performance of the Staff and by extension, the organization.

Our staff members collectively have 116 years of service to the health of Casco Bay. Our experience working together for a long time allows us to deepen our program and community work. We are integrating our work more effectively than ever. In addition, the engagement with our Board in guiding our work and with our Volunteers in assisting with the work are central and unifying dynamics.

8. Financial Stability

Friends of Casco Bay has a strong balance sheet, with plenty of working capital and no significant debt (other than Accrued Vacation Liability), along with four dedicated funds used to support operations: the Baykeeping Fund, the Emeritus Fund for Advocacy, the Boats Fund, all housed at the Maine Community Foundation, and the Climate Change and Casco Bay Fund, currently housed in money market savings and a certificate of deposit.

Monthly interim financial reports will continue to be prepared, emphasizing year-to-date budget versus actual performance, along with balance sheets and periodic invested funds updates.

9. Board

Friends of Casco Bay's Board of Directors meets monthly on the 3rd Tuesday, from September through June except for December. The Board's Community Engagement Committee meets on the 1st Monday of the month. The Executive Committee meets as needed.

The Executive Director works with the Board President, and when appropriate, the Executive Committee, to develop agendas for these meetings. Staff provide logistical support for Board meetings, including scheduling space to meet, providing snacks, arranging a/v, and taking minutes. With Mary's retirement, we will need to determine who will take the minutes at Board meetings. Staff will continue to engage Board members in building and maintaining community relationships, policy issues, program efforts and accomplishments, governance, events, and connections to resources – financial and otherwise.

We continue to encourage the Board to engage in discussions and planning about Board recruitment and Board leadership succession. We will continue to meet with new friends of the organization and explore nominations and the nominating process to improve board recruitment practices.

IV. FY21 Operating Plan Summary

Monitoring:

- Continuous Monitoring Station (CMS), with data sonde with a pCO₂ sensor at Cousins Island, hourly data year round. Establish two additional stations for deployment once fundraising is complete
- Seasonal Sampling, early spring to late fall, approximately every 3 weeks
 - 13 sites to sample surface water quality
 - 9 sites by boat to sample water quality down through the water column
- Design and release data products from both types of sampling efforts, working closely with Communications and Advocacy staff
- Investigate and track nuisance and harmful algal blooms
- Continue to develop internal data-handling protocols for ease of storage, quality assurance, and extraction for our analyses and for other scientists, using WRDB software
- Continue to collaborate with DEP, PWD, EPA, Portland, and South Portland to understand conditions in Casco Bay

Baykeeping

- Continue to serve on the Coastal and Marine Working Group of the Maine Climate Council to help reduce the causes and consequences of climate change in Casco Bay
- Continue advocating in various venues for reductions in stormwater pollution: through the Maine Climate Council work, review and comment on MS4 second-step permits, respond to Portland's Integrated Plan
- Continue work with Portland and South Portland to encourage reductions in Nitrogen loads in effluent
- Continue work with South Portland and other municipalities, as they continue to construct fertilizer and pesticide ordinances
- Continue to track developments in aquaculture in Casco Bay with an eye toward protecting the health of the Bay
- Monitor legislative initiatives to respond to those that may have an impact on the Bay and our work
- Respond to public inquiries

Community Engagement

- Provide quality interactions for all those who volunteer with us
- Continue to recruit and respond to Water Report posts
 - Encourage tracking of site-specific algal blooms, sea level rise, erosion, etc.
- Host a Water Reporter Gathering to recruit, support, and clarify what is helpful in posts
- Recruit top-notch Interns and Externs to assist us with our work and provide high quality experiences for them
- Coordinate group activities:
 - Coastal Cleanups
 - Storm Drain Stenciling projects
- Offer our BayScaping presentation at neighborhood socials and public events
- Host another Casco Bay Matters series to engage the public around key issues we are working on and promote ways people can make a difference in the health of the Bay

- Participate in events hosted by others groups, with use pre-assessment filters in hopes of participating in events that turn out to be “worth our while;” recruit Board members and other volunteers to assist with these events
- Share our Continuous Monitoring Station data with educators and promote use of the Casco Bay Curriculum activities

Pumpout Program

- Continue to offer pumpout services for 2020 season

Communications and Development

- Foster a storytelling culture
- Promote our stories in a wide variety of ways.
- Climate Change and Casco Bay Fund:
 - Continue quiet phase of fund raising
 - Plan and host our 30th anniversary event (and Members Annual Meeting) on April 29, using it to launch the public phase of fundraising
 - Launch the public phase, mailing 7200+ requests for support, end of April
 - Follow up in the fall with a Special Appeal to many of those who have not yet responded to the April mailing
- Host a Cape Elizabeth house party, GreenDrinks eventour annual film festival, annual donor appreciation event, and Casco Bay Matters series
- Keep or new website up to date and continue to add new sections
- Update and add to our Bay Papers
- Employ a wide range of additional communications strategies and activities to engage our audiences (see extensive bulleted list at end of Communications section)
- Continue to grow and deepen giving from individuals
- Advance our Anchor Society as recognition of those making planned gifts
- Continue to garner foundation, corporate, and government support
- Take advantage of and create visibility and branding opportunities as they arise

Technology and Capital Assets

- Continue upgrades in computer workstations, software, and other office tools
- Move our offices
- Assess whether we will move our server files to the cloud next year
- Add two Continuous Monitoring Stations with redundant equipment to fully run the monitoring program both at the stations and episodically

Management and Administration

- Maintain excellent working environment for staff
- Hire a Staff Writer (beginning of year)
- Hire a Science Assistant (end of year)
- Work with Board on board recruitment

V. FY21 Budget Highlights

The Operating Plan for FY21 describes our plan for improving and protecting Casco Bay for the year April 1, 2020, through March 31, 2021.

A budget is the identification of the resources we believe it will take to accomplish this Operating Plan. The budget represents a best guess at a point in time based on reasonable assumptions. Reality will prove to be different.

We budget as conservatively as we can and hope to underestimate revenue and overestimate expenses, as realistically as possible. We strive to break even in operations; this is an essential signal to funders that we live within our means. The FY21 budget results in a very modest surplus of \$2k before depreciation, a noncash expense.

The Budget is presented as a two-page summary. It is accompanied by a 7-page Supplemental Schedule that includes historical financial data for comparative purposes. These two documents are formed from other in-depth financial information, including a 500 line-item detailed budget, compensation and benefits budgets, estimated funds release calculations, and a campaign budget with release calculations.

To meet the goals of the FY21 Operating Plan, expenses are budgeted at \$1,196,190, which is 24% higher than this year's estimated actual operating expenses. Almost 18% of the total represent direct costs for one-time expenditures from the Climate Change and Casco Bay Fund: for building out the array of monitoring stations and for direct campaign costs (event and mailing). Without those expenses, the net budgeted expenses total \$982,390, which is about \$25,000 more than this year's projected actual expenses.

As usual, budgeted expenses include a \$12,000 contingency line item. While we have rarely utilized this, it may be put to use this year should we move forward with some, as yet, undefined media relationship initiative.

The FY21 Budget identifies \$1,198,527 in operating revenue from a robust variety of sources. Fortunately, we are going into this fiscal year with \$60,000 in program funds awarded in FY20 but for use in FY21. Our invested funds are also providing resources; as usual, the budget proposes drawing 5% from the Baykeeping Fund and \$10,000 each from the Advocacy and Boats funds, all at Maine Community Foundation. The Climate Change and Casco Bay Fund will supply funds for three different purposes: direct campaign costs (event and mailing), monitoring equipment, and program support – all totaling \$316,800.

We are flat funding contributions in the budget, given the emphasis on campaign giving this year, which we expect will result in increased giving to the annual fund and memberships next fiscal year.

As of the writing of this report, markets around the world are continuing to respond negatively to the COVID-19 outbreak. We may find that we are altering both our plan and budget during this year in response to the disruption of quarantines, a faltering economy, or both.

The Budget to support the FY21 Operating Plan will be fodder for discussion at our upcoming March 9th Workshop, following our review of this Plan.

VI. APPENDICES

Appendix A – FY21 Program Matrix

Program	Science	Community Engagement	Advocacy
Water Quality & other Environmental Monitoring	Continuous Monitoring Station(s) Seasonal Monitoring QAPP maintenance Laboratory and boat operations	Water Reporter observing network Casco Bay Matters: <i>Ocean Acidification, Climate Change, and You</i> Images, graphs, reports, etc. to the public about our science efforts	Encouraging more monitoring in CWA permits Championing monitoring by DEP Maine Ocean and Coastal Acidification Partnership, acidification and climate change monitoring efforts Nitrogen standards
Baykeeping: The eyes, ears, and voice of Casco Bay	Advocacy is grounded in science Staying on top of Climate Change science Casco Baykeeper helps staff our WQM efforts Tracking algal blooms	Water Reporter observing network Casco Bay Matters: <i>Ocean Acidification, Climate Change, and You</i> Public events Media events CBEP management committee	Addressing threats as they arise Climate Change and Acidification Policy CWA discharge permits CSO remediation Aquaculture Maine Ocean and Coastal Acidification Partnership Legislation/ ordinance tracking and testimony BayScaping ordinances Marine Debris Dredge/CAD monitoring Oil Spill Preparedness Preventing federal rollbacks
Community Engagement	Data presentations on website: translating science to the general public Bay Papers Data behind <i>Casco Bay Curriculum</i> Casco Bay Matters: <i>Ocean Acidification, Climate Change, and You</i>	Casco Bay Matters: <i>Ocean Acidification, Climate Change, and You</i> BayScaping socials Community speaking events Tabling at community events <i>Casco Bay Curriculum</i> Our special events (volunteer appreciation, house parties) Media releases Email communications Social Media Newsletter	Action alerts Bay Paper actions Casco Bay Matters: <i>Ocean Acidification, Climate Change, and You</i>
Pumpout Program	Pumpout metrics	Pumpout service Ambassadorial work Launch Party for new Pumpout Boat + naming contest	Watchdogging pumpout stations around the Bay Advocating for more pumpout stations

Appendix B – Our Working Relationships – 2019

GOVERNMENTAL and QUASI GOVERNMENTAL

Casco Bay Estuary Partnership
 Management Committee (Curtis Bohlen)
 Nutrient Council (Curtis Bohlen)
 Monitoring Committee (Matt Craig)
 Public Education (Victoria Roundy)
 Funding (Marti Blair)
Maine Department of Environmental Protection
 Science and Regulation (Angie Brewer, Don Witherell)
Data and Continuous Monitoring (Rob Mohler, Emily)
Pumpout Program (Pam Parker)
Permitting and Regulations (Greg Wood)
Maine Outdoor Heritage Fund collaboration (Mark Margoram)
Maine Department of Marine Resources
 Maine Coastal Program (Kathleen Leyden, Teresa Torrent)
 Shellfish Health and Algal Outbreaks (Kohl Konwit, Bryant)
 Sea Level Rise (Gail Bodge)
Maine Outdoor Heritage Fund
Wells National Estuarine Research Reserve
Portland Water District
 East End Waste Water Treatment Facility, Peaks, Cape (Scott Firmin)
 Funding
Environmental Protection Agency
 Region 1, Boston (Commissioner, Staff)
Maine/New Hampshire Area Committee
US Geological Survey
 Eelgrass (Hilary Neckles)
State Dredge Team
NOAA
 Marine Debris (Demi Foxx)
 Ocean Acidification
Coast Guard
 Oil spill preparedness
 Pollution incidents
Harbor Commissioners
Shellfish Commissions
Casco Bay Lines
City of Portland
 Public Works/Water Resources (Nancy Gallinaro)
Parks and Rec – Back Cove Yardscaping site and sea level rise (Jeff Tarling)
Water Quality Stakeholder Group
 Ordinances (Troy Moon)

South Portland
 Water Resources Division
 Stormwater management
 Pesticide ordinance
Falmouth
Brunswick
Harpwell

City Councilors
Legislators
Congressional

RESEARCH and EDUCATIONAL INSTITUTIONS

Bigelow Laboratory for Ocean Sciences
 PCO2 and pH Monitoring (Nicole Price, Brittney Honisch)
 Citizen Science (Nick Record)
 Color (Barney Balch)
 Major Donors whom we have in common
Gulf of Maine Research Institute
 Meeting space
Periodic Program Content Check In and Information Sharing (Labaree, Pershing, Sherwood)
 Volunteer Initiatives (Sarah Kirn)
Sea Level Rise (Gail Bowness)
Darling Marine Center, University of Maine
Southern Maine Community College
 Marine Sciences
 Landlord
University of Southern Maine
 Media Studies
 Karen Wilson
University of Maine
 Damien, David, Larry, Kathleen
University of Maine School of Law
University of New Hampshire
 Joe Salisbury, Chris Hunt
Bowdoin College
Bates College
College of the Atlantic
St. Joseph's College
 Mark Green
 Greg Teagarden
University of New England (UNE)
Maine College of Art (MECA)
Schools - curriculum

OTHER NONPROFITS and COALITIONS

Maine Ocean and Coastal Acidification Network
Northeast PSP Group
Northeast Coastal Acidification Network NECAN
Waterkeeper Alliance
Waterfront Alliance
Island Institute
Take Action Portland
Conservation Law Foundation (CLF)
Beyond Pesticides (DC)
Ocean Conservancy
Gulf of Maine Marine Educators Association
(GOMMEA)
Maine Science Teachers
Cornerstones of Science
Surfrider
Downeast Environmental Institute
Maine Center for Coastal Fisheries
Royal River Conservation Trust and various
coalitions
New Meadows – various coalitions
Presumpscot River – various groups
Friends of the Basin
Quahog Bay Conservancy
Harpwell Heritage Land Trust
Manomet
MaineShare
Maine Association of Nonprofits
Workshops (teaching)
Advocacy Advisory Committee
Environmental Priorities Coalition
Kennebec Land Trust
Friends of Fort Gorges (Paul Drinan)
Friends of the Eastern Prom
Sail Maine
Maine Island Trail Association
Hurricane Island Foundation
Friends of Merrymeeting Bay
Maine Coast Observing Network
Friends of Frenchman Bay
Friends of Penobscot Bay (WKA affiliate)
Cumberland County Soil and Water
Conservation District
Adventure Scientists (Abby Barrows -plastics)
Marine and Environmental Research Institute
(Susan Shaw)
South Yuba River Citizens League (SYRCL) – Wild
& Scenic Film Festival

Green Drinks
Social Media Breakfast
Scarborough Land Trust
Southern Maine Conservation Collaborative
Maine Conservation Alliance
Maine Conservation Voters
Environmental Priorities Coalition
Yacht clubs, sailing groups

CORPORATE (clean ups, stenciling,
sponsorships, science)

Aquaculturists
Harvesters
Kayak and Sailing companies
Port Harbor Marine
Other marinas and boat yards
Pumpout facilities
Boat maintenance
Andy's Old Port Pub
SeaTow
TD Bank
Idexx
Yelp!
Allagash
Ocean Navigator
LT's Inc
Oakhurst
RBC Wealth Management
Pumpout Customers

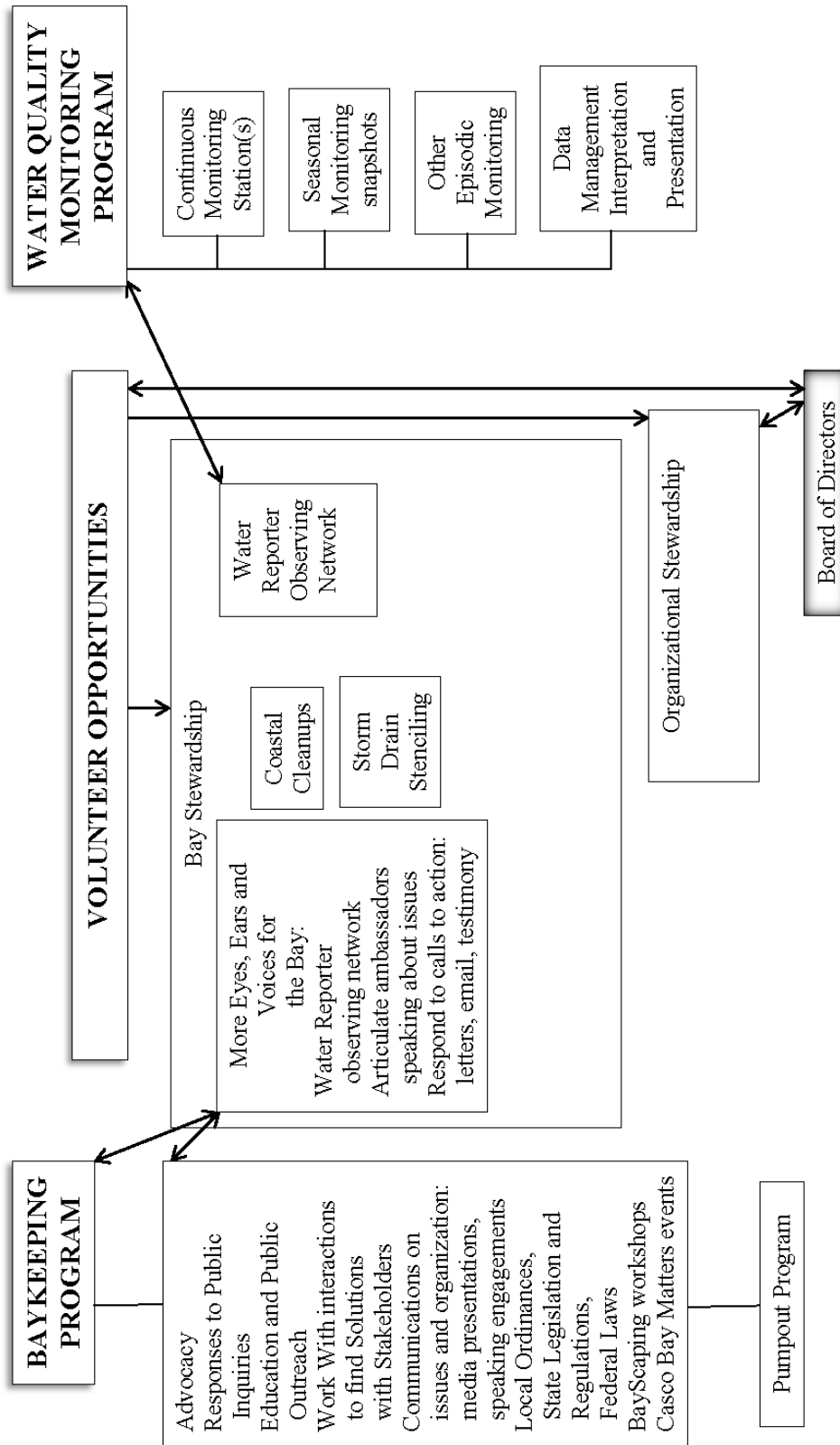
VOLUNTEERS and DONORS

Key Volunteers
Board
Cleanups
Color by Numbers
Water Reporter
Stenciling
Office work
Photos, Videos
Events
Hosts
Master Gardeners
Various Foundations, Trusts, Donor Advised
Funds
Donors and Members

NEWS MEDIA

Appendix C – FY21 Volunteer Opportunities in Relation to Programs

Friends of Casco Bay Volunteer Opportunities in Relation to Programs - 2020



Appendix D – Volunteer Metrics for FY20

As of February 7, 2020

Volunteer Metrics	FY20	FY19
Number of Volunteers who were active in FY	534	262
Number of Hours Volunteered (Water Reporter posts excluded)	3,586	1,242

Water Reporter Metrics	
Number of Members in the Friends of Casco Bay Group	197
Number of Posts in the Watershed Since Launching in July 2018	914
Number of Algal Blooms Noted or Tracked in 2019	18

Coastal Cleanup Metrics	2019	2018
Number of Cleanups	22	8
Number of Participants	285	89
Estimated pounds of trash collected	937	553

Storm Drain Stenciling Metrics	2019	2018
Number of Events	4	3
Number of Participants	46	33
Storm Drains Stenciled	322	277

Appendix E – Pumpout Metrics 1999 – 2019

Friends of Casco Bay - Pumpout Metrics

Year	Pumpout Coordinator	# of Pumpouts / Service Calls	Gallons of Sewage Diverted	# of Pumpout Customers	# of Pumpouts in 20 Gallon Increments	# of Flushes	Total \$ Billed	Notes
2019	Splude	895	28,660	280	1433	72	\$15,145	First year with new boat!
2018	Splude	499	16,060	189	803	38	\$8,230	measured in 20 gallon units
2017	Splude	485	13,700	169	685	45	\$7,525	measured in 20 gallon units
2016	Splude	543	15,320	159	766	48	\$7,655	measured in 20 gallon units
2015	Splude	535	13,640	105	462	44	\$5,280	measured in 20 gallon units
2014	Splude	570	18,000	115	622	64	\$7,180	measured in 20 gallon units
2013	Splude	637	12,740	100	448	42	\$5,110	measured in 20 gallon units
2012	Splude	340	6,810	106	532	47	\$6,055	measured in 20 gallon units
2011	Splude	405	10,400	122	529	37	\$6,035	measured in 20 gallon units
2010	Splude	294	8,280	120	417	38	\$4,335	measured in 20 gallon units
2009	Mattsson & Linnell	213	4,260	78	213	27	\$2,565	measured in 20 gallon units
2008	Mattsson & Linnell	332	7,160	100	335	34	\$2,185	measured in 20 gallon units
2007	Mattsson & Linnell	155	5,100	88	212	29	\$1,485	measured in 20 gallon units
2006	Mattsson & Linnell	203	4,060	73	203	40	\$2,380	measured in 20 gallon units
2005	Adibi	116	3,425					measured in 20 gallon units
2004	Saas	471	7,347					actual
2003	Saas	659	10,300					actual
2002	Saas	754	10,425					actual (est would equal 14,480 gallons)
2001	Madeira	1,126	16,125					actual (based on Palm Pilot information)
2000	Madeira	771	15,400					estimated
1999	McGivern	650	13,000					estimated
1998	McGivern	289	5,780					estimated (old estimate 4,500)
1997	Bertocci	215	4,300					estimated (old estimate 4,000)
1996	Hackett	160	3,200					estimated (old estimate 2,500)
1995	Hackett	51	1,020					estimated (operations 5 weeks 1st season)
		11,368	254,512					

Appendix F – FY20 Media Report

April 6 Maine Foodie Tours presentation FOCB donor

April 11 The Forecaster (4 ed) South Portland to control fertilizers
<http://www.theforecaster.net/south-portland-looks-at-controlling-use-of-fertilizers/>

April 12 Biddeford Journal Tribune Naming PO boat
<https://www.journaltribune.com/articles/south-portland-sentry/casco-bay-group-seeks-help-naming-new-pumpout-boat/>

April 12 South Portland Sentry Naming PO Boat

April 13 Portland Press Herald SoPo considers limits on fertilizer use

April 17 Working Waterfront Friends group on front lines of climate change
<http://www.islandinstitute.org/working-waterfront/casco-bay-front-lines-climate-change>

April 22 Stonyfield Organics press release Grant of FOCB
<https://www.perishablenews.com/dairy/stonyfield-organic-further-mission-to-remove-harmful-chemicals-where-children-play-announces-one-year-milestones-of-playfree-initiative/>

May 2 PPH On the Move David Kaufman named to Bd

May 2 Portland Press Herald Protecting Casco Bay: What you can do (Casco Bay Matters)
<https://www.pressherald.com/2019/05/02/protecting-casco-bay-what-you-can-do/>

May 2019 Harpswell Anchor Casco Bay Fun Facts (from FOCB Annual Report)

May 11 & 12 WCSH-TV Back Cove cleanup and stenciling
<https://www.newscentermaine.com/article/news/allagash-lukes-lobster-organize-back-cove-cleanup/97-25655a99-7037-4c1e-922f-61f55edc4c3c>

May 14 The Forecaster Algae at Falmouth Town Landing not an issue -yet
<http://www.theforecaster.net/algae-at-falmouth-town-landing-not-an-issue-yet/>

May 15 Working Waterfront online Casco Bay finds itself on the front lines of climate change

Summer 2019 Wolfe Neck Ctr Field Notes Aug. 13 Casco Bay Begins in your Backyard

June 10 WCSH-WLBZ Portland group launches new 'pump-out' boat
<https://www.newscentermaine.com/article/news/portland-group-launches-new-pump-out-boat/97-caa8b081-45da-49e8-bbbb-5bae9ebdb41d>

June 11 WCSH TV PO Boat skims sewage out of the Bay
<https://www.newscentermaine.com/video/tech/science/environment/pump-out-boat-skims-sewage-out-of-casco-bay/97-12ad1a65-5a51-462d-8f19-ff25ff696167>

June 11 POINTS East Magazine PO Boat Launch
<https://www.pointseast.com/friends-of-casco-bay-launches-new-pumpout-boat/>

June 14 Maine Boats, Home, and Harbors FOCB launches new, bigger PO boat
https://maineboats.com/blog/2019/friends-casco-bay-launches-new-bigger-pumpout-boat?fbclid=IwAR3_iXXwRQYc5kKJ2GiIvdfcNXCi0lhm2c2M6YwIPX9avQ9VAu0_gBdc78s

June 17 The Forecaster Public invited to keep eyes on Casco Bay with Water Reporter app <http://www.theforecaster.net/public-invited-to-keep-eyes-on-casco-bay-with-water-reporter-app/>

June 17 & 18 WCSH-TV This boat is busy cleaning up boaters business
<https://www.newscentermaine.com/article/news/this-boat-is-busy-cleaning-up-boaters-business/97-55a4f1a7-4dad-4c45-b599-36e1fde78ff9>

June 18? PPH On the Move Stephen Bushey named to Bd

June 19 USA Breaking News public invited to keep eyes on CB w/ Water Reporter
<https://www.usabreakingnews.net/2019/06/public-invited-to-keep-eyes-on-casco-bay-with-water-reporter-app/>

June 21 CE-SP Sentry Friends Group Launches 'Headmaster'
<https://sentry.mainelymediallc.com/articles/friends-group-launches-headmaster/>

June 21 Journal Tribune Friends Group Launches 'Headmaster' (Sentry's story)
<https://www.journaltribune.com/articles/south-portland-sentry/friends-group-launches-headmaster/>

June 21 South Portland Community Newsltr SP Water District supports PO Boat
<https://mail.google.com/mail/u/0/?shva=1#inbox/WhctKJVRMJTJgMXTvGlXPwwFZHWpCWqmKqygQVltRPDqkcpHJRwzWZrXNqDlkqjzPChCmNV>

July 10, WRinaction We are blown away by the work underway by volunteers and staff at Friends of Casco Bay. [#WRinAction](#)

July 19 Bigelow Investment Advisors Newsletter Spotlight of the Month: FOCB
<https://www.bigelowadvisors.com/2019/07/12/positive-impact-spotlight-water/>

July 25 Times Record Monitoring Middle Bay's blooms
<https://www.timesrecord.com/dynamicpage/pdf/254971>

July/ August 2019 Maine Boats, Homes and Harbor Marine Boat Builders: Pumpout boat

August 2019 Working Waterfront Headmaster educates boaters on keeping clean Bay

Aug 3 PPH Holy Donut donates to FOCB
<https://www.pressherald.com/2019/08/03/oahu-dreaming-doughnut-maker-moving-to-hawaii-to-watch-daughter-catch-a-wave/>

August 4 Maine Sunday Telegram /Scene& Heard PO Boat Christening photos

August 2019 Points East What's in a name? Alternative suggestions for PO boat
<https://view.publitas.com/points-east-magazine/points-east-magazine-august-2019/page/24-25>

August 12 She's Brilliant! KMA consulting profile of Ivy Frignoca

August 14 Working Waterfront Hooray for Headmaster
<https://mail.google.com/mail/u/0/?shva=1#inbox/WhctKJVZkPvnRhjQhzTHPmJZTgPRhCvjLhNkfVhnjClMrpNbKQzRWSRqhBzprHCdLFGHMOVV>

August 27 WGME Ch 13/Fox News 23 Ivy about Algal blooms
<https://wgme.com/news/local/mysterious-algae-bloom-forms-in-casco-bay>

September 3 PPH Editorial on the future of Fort Gorges, mentions FOCB protecting the Bay
<https://www.pressherald.com/2019/09/03/maine-voices-its-time-to-decide-what-kind-of-park-we-want-fort-gorges-to-be/>

September 14 WGME-TV, Ch. 13 Photo of Sarah's coastal cleanup that day

September 16 PPH Maine addressing climate change, Ivy quoted
<https://www.pressherald.com/2019/09/16/maine-finally-addressing-climate-change-in-the-gulf/>

Fall 2019 Casco Bay Currents /CBEP FOCB photos and projects cited
<https://mail.google.com/mail/u/0/?shva=1#inbox/WhctKJVZnSkjZsGxdKcWXhqGbJVhQKMPgpdXdDtPTjpcmCLlrPKQxLTpRzbZmzZBftrBMFb>

September 24 Times Record E-edition Doc Phillips obituary, WQM
<https://www.timesrecord.com/2019/09/24/walter-doc-hyde-phillips/>

Sept. 27 Channel 13's IPCC ocean report w/ Rep. Lydia Blume and Ivy Frignoca
<https://wgme.com/news/local/state-of-maine-taking-steps-to-fight-climate-change>

October 28 PPH Film Festival press release

November 16 PPH CMS
<https://www.pressherald.com/2019/11/16/friends-of-casco-bay-to-add-data-stations-to-get-clearer-picture-of-changing-conditions/>

November 16 WCSH 6 CMS

November 13
<https://www.facebook.com/WGME13/posts/10156657446581981>

November 19 Saving Seafood MAINE: FRIENDS OF CASCO BAY WILL ADD DATA STATIONS TO GET A CLEARER PICTURE OF QUICKLY CHANGING WATERS
<https://www.savingseafood.org/news/state-and-local/maine-friends-of-casco-bay-will-add-data-stations-to-get-a-clearer-picture-of-quickly-changing-waters/>

Dec 2019 Working Waterfront CB temperature data details warming

December 13 South Portland Sentry Gif form Woodard& Curran Fdn
<https://www.pressherald.com/2019/12/13/community-news-11/>

January 5, 2020 Maine Sunday Telegram Scene & Heard Wild & Scenic Film Festival,
Nov 3 photos

January 15, 2020 Portland Press Herald https://www.pressherald.com/2020/01/15/maine-towns-businesses-face-potential-40-percent-increase-on-wastewater-fees/?goal=0_715eed3192-55ed05eae5-82771897&mc_cid=55ed05eae5&mc_eid=888f4d384e

January 16 The Forecaster South Portland's goal of limiting fertilizer use still 'a work in progress'
<https://www.pressherald.com/2020/01/16/south-portlands-goal-of-limiting-fertilizer-use-still-a-work-in-progress/>

January 19 Maine Sunday Telegram Scene & Heard: Donor Appreciation event photos

Appendix G – FY21 Events We Anticipate Hosting

April 29, 2020	Wednesday	Members Annual Meeting, 30 th Anniversary Celebration, and the launch of the public phase of fundraising for the Climate Change and Casco Bay Fund	Ocean Gateway	4:45 – 8 pm
June 22, 2020	Monday	Water Reporter Gathering – field trip	Friends of Casco Bay offices, South Portland	5 – 7 pm
July 30, 2020	Thursday	LeBauve House Party	Cape Elizabeth	5 – 8 pm
August 11, 2020	Tuesday	GreenDrinks	Jones Landing, Peaks Island	5:30 – 8:30 pm
November 7, 2020	Saturday	13 th Wild & Scenic Film Festival	Abromson, USM, Portland	2 – 6 pm
December 3, 2020	Thursday	Donor Appreciation Event	Cumberland Club, Portland	5 – 7 pm
January – March 2021	To be determined	Casco Bay Matters series – 2 event	To be determined	5:30 – 6:30 pm