



Friends of Casco Bay
Casco BAYKEEPER®

Operating Plan
for
Friends of Casco Bay
FY16

April 1, 2015 – March 31, 2016

FOR INTERNAL USE ONLY

Table of Contents

I.	Context for FY16 (April 1, 2015 – March 31, 2016).....	3
II.	Highlights from the Strategic Plan 2013-2017	5
III.	FY16 Operating Plan	6
A.	Programs	6
1.	Water Quality and other Environmental Monitoring.....	6
2.	Baykeeping	15
4.	Casco Bay Curriculum.....	29
5.	Storm Drain Stenciling	30
6.	Pumpout Program	31
7.	Volunteers	32
8.	Events and Public Relations: Community-based Educational Outreach	33
9.	Media and Public Relations	37
B.	Development	40
C.	Technology and Capital Assets.....	42
D.	Management and Administration.....	43
1.	Staff.....	43
2.	Financial Stability	45
IV.	FY16 Operating Plan Summary.....	46
V.	FY16 Budget Highlights	47

I. Context for FY16 (April 1, 2015 – March 31, 2016)

As Friends of Casco Bay's 25th Anniversary year began to draw to a close, we experienced a unique occurrence, one that has defined a seminal shift in our focus internally and in our image externally. After almost 24 years on the job, Joe Payne, Friends of Casco Bay's first employee and our chief public advocate and spokesperson for the Bay, retired from being Casco Baykeeper. With a six-week notice period, we rallied with an all-hands-on-deck response to give him a grand send off, create a fund for advocacy in his honor, reassign a variety of Baykeeping duties, and put together a plan to define the next iteration of Baykeeping, along with a search process and time line.

Building capacity in the Baykeeping Program is one of the six key goals in our **Strategic Plan 2013-2017**, so we will use this transition year as an opportunity to look closely at what the Bay needs and explore optimal ways to redefine Baykeeping to best meet our mission, mesh with our organizational style and stay in harmony with Waterkeeper Alliance requirements. We will explore and identify areas of focus and responsibility, as well as optimal skill sets to meet those challenges, and we envision that this well may indicate the need for two hires, Casco Baykeeper first, then another in the future, depending on what is left wanting.

I have asked Staff to shave elements of program focus down to the fundamentals this year because we have four unusual dynamics challenging our capacity:

- We are short a key staff person (Casco Baykeeper) in a program which was under capacity to begin with.
- Remaining staff are stretching to meet the additional assignments of covering some of the Baykeeping duties.
- We have a veteran staff member who will be on well-deserved merit leave for three months during the summer of 2015.
- Many of us will be focusing a significant portion of our time to redefining Baykeeping and conducting the search process.

This Document

This document contains our **FY16 Operating Plan** and a summary of the **FY16 budget highlights**. These elements support our **Strategic Plan 2013-2017**, which identifies 6 strategic goals, a vision for the future, and 3 areas of our work seen as particularly strategic in advancing our mission for a healthier Bay. These strategic elements are summarized below.

This **Operating Plan** is for internal use and contains detailed narrative generated by staff, specifically laying out the activities in which we will be engaged this year, April 2015 to March 2016, to make progress on the goals outlined in the Strategic Plan. The Operating Plan is in four sections: Program, Development, Technology and Capital Assets, and Administration. The contents of this plan are open for discussion among Board and Staff.

Following the plan is a summary of the highlights of the FY16 Budget, which is constructed to support this plan. **The FY16 Budget and Supplemental Schedule are separate documents and will be sent to you to accompany this plan.**

While the Strategic Plan is elegant in its brevity – 3 pages, the Operating Plan is just the opposite. The devil, as they say, is in the details. The beauty of this detail for us at the Staff and Board levels is that the plan makes our intentions transparent, and we can all be on the same page in our messaging. Having a clear plan helps coordinate our use of resources, and it makes the search for resources – the details for our fundraising processes – markedly straightforward.

Our mission is to improve and protect the environmental health of the Bay and is supported by efforts in science, education, and advocacy – the three legs of the stool, so to speak.

Much of the value of what we offer to the community lies in our continuing 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, encouraging 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, in FY16, we will be tackling our goals in the following ways:

1. Advocating for standards and for behaviors that protect the health of the Bay
2. Communicating science through credible data collection and accessible presentations to educate our community, using various forms of outreach: presentations, events, meetings, print, special reports and especially our Bay Papers and the report *A Changing Casco Bay*, along with web postings, e blasts, tweets, television, radio, and press conferences.
3. Building and maintaining collaborations and partnerships that advance our mission – with the Board and volunteers, colleagues and scientists, interns, members and donors, policy makers, other water groups, Bay “users,” and other members of the public
4. Building and maintaining our ability and operating capacity to realize our operating plan, while responding to issues, threats, requests, and opportunities, as they arise, effectively and in a timely manner
5. Growing funding resources to better deliver our mission
6. Hiring a new Casco Baykeeper

It takes a community to take care of a Bay, and an organization to lead that charge. It is a privilege to live in an area with such a relatively clean waterbody, and as the Casco Baykeeper, Emeritus used to say, “With every privilege comes a responsibility.”

Many thanks to Staff for your contributions – we truly could not do the work without each and all of you – and to all of you readers for your dedication to considering the contents of this plan along with the budget and discussions that will follow in the days ahead.

Respectfully submitted,

Cathy L Ramsdell, CPA, CGMA
Executive Director
Friends of Casco Bay

II. Highlights from the Strategic Plan 2013-2017

[Please see the Strategic Plan in its three-page entirety for more detail] informational

Strategic Goals highlighted in the Strategic Plan 2013-2017

1. Advocate for standards and controls on nitrogen and acidification
2. Advance the visibility, branding, educational outreach, political involvement, and recognition of our mission
3. Apply technology and scientific methods; build credibility; communicate and educate
4. Pursue collaborations and partnerships that advance our mission
5. Build capacity in Baykeeping and maintain capacity in organization and infrastructure
6. Grow funding consistent with our resources

Our Areas of Work from 2013 to 2017

Our vision for the organization for the next five years is further refined by focusing on three strategic areas of work: Baykeeping, Community, and the Organization. The agendas for these areas cross connect and intersect dynamically. It is imperative that we balance staffing, budget, time, and energy, to maintain mission focus and avoid mission creep.

Closing summation: We plan to remain programmatically effective, financially strong, and growing in visibility and perceived value to the community by doing the following: Stick to our mission. Stay science-based in advocacy and policy. Build knowledge, build relationships, communicate our brand, educate, and maintain our credibility. Harness and apply technology. Use the “work-with” approach and develop alternative approaches when this is ineffective. Invest in the human capital of the organization and assure orderly succession. Build financial strength. Increase public awareness of impacts to the Bay and best practices to improve and protect the health of the Bay.

III. FY16 Operating Plan

A. Programs

The employees of Friends of Casco Bay meet together regularly throughout the year to discuss our work, track progress, 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 working together over an extended period of time. The sharing of expertise, experience, and inspiration are essential to setting direction together, whether staying the course in certain areas or shifting our focus to launch new initiatives.

Themed meetings, sometimes involving collaborative partners from outside the organization, range from reviewing aspects of our water quality monitoring program and other scientific work to content messaging, advocacy and legal positioning, education and outreach efforts, event planning, publication purpose and design, press releases, and web activity. The shared sense of rationale and understanding about why we are engaging in certain activities (and not others) is essential for outreach, for fundraising purposes, and for organizational harmony; we must continue to effectively and compellingly tell the story of what we are doing to improve and protect the Bay, the stories of *why* this work matters.

1. Water Quality and other Environmental Monitoring

This will be the 24th year of collecting data on the water quality 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.

a. Citizen Stewards Monitoring Program

Our volunteer citizen scientists are trained to collect data in surface water, whereas staff profiles, described below, focus on collecting data down through the water column. **In 2015**, the Citizen Stewards Monitoring Program will continue, on 10 sampling Saturdays between April and October, to collect data twice each day, in the morning and afternoon (at 7 a.m. and 3 p.m.) on those sampling dates, resulting in 20 sampling events. Staff members have agreed we will likely continue this sampling regime for the next couple of years, then review the data to again assess whether the program needs modification. We will also begin exploratory conversations about the utility of various data sets, as well as scenario planning around the vulnerability of funding, particularly governmental funding received from the federal Environmental Protection Agency (EPA) through the Casco Bay Estuary Partnership (CBEP) for the Citizen Stewards program.

(1) **Data** to be collected: Volunteers will continue to measure water temperature, salinity, Secchi depth, dissolved oxygen (DO), and pH, as well as ancillary data on weather conditions, air temperature, and any unusual sightings. Volunteers are trained according to our Quality Assurance Project Plan (QAPP) approved by

EPA, which makes their data, after quality assurance checks by staff, scientifically defensible.

- (2) Measuring the acidity at **surface water sampling** sites by our volunteers has been part of our program from the beginning. Acidity levels in ocean water are changing as a result of the absorption of atmospheric carbon dioxide at the surface, an effect of greater carbon loading in the atmosphere (ocean acidification), and as a result of the decay of organic matter in productive, nearshore waters (coastal acidification). Acidity is likely further exacerbated by reductions in populations of calcifiers and of eelgrass due to green crab foraging.

In 2011, we equipped and trained our volunteers to use **digital pH meters** to measure acidity levels, shifting from the colorimetric method we had used since 1991. In 2013, we replaced many of the electrodes in the meters. We have some additional replacement electrodes on hand, so we'll be able to replace them, as well as batteries, in the volunteers' meters, as needed, in order to ensure the highest levels of precision of these instruments as well as the accuracy of the data collected.

- (3) In 2014, our volunteers sampled surface water quality at 37 sites around the Bay. This year, we will try to **increase the number of volunteer sites to 40**. Our ability to do this depends on the number of new and returning citizen scientists, as well as on their geographic locations. Recruitment efforts become more sophisticated each year, employing everything from word of mouth and local newspaper recruitment to internet links, our *Raisers Edge* integrated email marketing tool, Net Community (replacing Constant Contact emails), use of social media, and Survey Monkey scheduling.

In 2014, 62 returning Citizen Steward Water Quality Volunteers were recertified to sample during the 2014 season. In addition, 20 new folks joined the ranks.

After the season, seventeen recipients were recognized for their dedication to our Citizen Stewards Water Quality Monitoring Program: 5 volunteers achieved their fifth-year milestone (Pam Gerbi, Ray Gerbi, Susan Gilpin, Mark Worthing and Rita Worthing), 4 volunteers received recognition for their tenth year of service (Joe Keierleber, Jim Sidel, Carol Taylor, and John Taxter), 6 received their fifteen year milestone (Gary Glick, Kathy Glick, Devi Glick, Hillary Glick, Jim Hennessey, and David Hennessey), and 2 received recognition for twenty years of service (George Patterson and Peter Merrill).

In 2015, returning volunteers will brush up their skills during the annual Quality Assurance testing in March; new recruits will begin training in April.

b. Profiles of the Water Column

Profile sampling down through the water column at ten stations around the Bay will continue **monthly throughout 2015**, led by staff using a data sonde aboard the Baykeeper boat. As often as possible, students, other scientists, and volunteers will accompany staff on these trips. If weather is an impediment, only three of the ten sites – sentinel sites – may be sampled (this is often true during the winter months,

though we are noticing, informally, that wind and rough seas have become more of an inhibiting factor year round, not just in winter). Parameters measured in the profiles include temperature, salinity, Secchi depth, dissolved oxygen (DO), chlorophyll fluorescence, pH, DIN, and Total Nitrogen (TN). TN samples will be collected at the surface at all 10 profile sites only on a quarterly basis; the decision to switch to quarterly sampling from monthly sampling was made in 2014, due to the very low annual variability exhibited in the analyses of profile TN data. Data is collected in accordance with our QAPP.

c. **Unattended Sonde Data Collection**

Last year, we proposed collecting data using an unattended data sonde; we abandoned the effort when we realized we would be unable to obtain a sensor to measure the partial pressure of carbon dioxide (PCO_2) in the water (turns out, no sensors exist in our price range). Nevertheless, our data analysis efforts over the course of the past two years continue to lead us to the conclusion that for some types of measurements, we may benefit from an increase in the frequency with which data is being collected. So, we are going to try a small project at one site this year to get the process started, a project which will require little time yet may reap great benefits as we look to future data collection and analyses efforts.

This project has an additional goal – to better understand existing conditions and seasonal changes in carbonate chemistry and acidification in seawater in Casco Bay. This will be done by obtaining measurements of Total Alkalinity. This is easy and inexpensive.

Analyses of twenty years of various aspects of our water quality profile data reveal that some long-term trends are difficult to determine with statistical confidence using data collected once a month. This lack of confidence is due to the very significant variability inherent in coastal embayments and estuaries. This variability is evident in our Citizen Steward diurnal data set. Deploying an unattended sonde would provide us with far more data, which may prove more statistically powerful.

Work Plan for 2015: We will deploy one sonde at the Southern Maine Community College pier, beginning in May. The sonde will run unattended, collecting measurements hourly. Measured parameters will include water temperature, salinity, dissolved oxygen concentration and percent saturation, pH, and chlorophyll. Once a week, the sonde will be checked for fouling, the data collected will be uploaded, and a water sample for Total Alkalinity analysis will be collected. On a rotating basis, every other week, the deployed sonde will be replaced by a clean, fully charged and calibrated sonde. This rotation will continue for the entire deployment which will last into late fall. The sonde will be chained and locked to a float at a depth of 0.2 meters.

A LaMotte alkalinity test kit will be used to determine Total Alkalinity of the weekly samples. We are considering sending a couple of samples to Katahdin Analytical Services using Standard Method 2320-B on replicate water samples to determine the accuracy and resolution of the kit we are using. In addition, we have colleagues in a collaborative effort also collecting samples at the pier, and we will try to compare our results with theirs.

The alkalinity data will be used with the pH data from the sonde to calculate dissolved inorganic carbon, partial pressure of carbon dioxide, and aragonite saturation state. These five parameters will then provide us with a much deeper look at the carbonate chemistry of Casco Bay (at least at one site), and the current level of acidification and how that may vary with water temperature, salinity, and dissolved oxygen.

A weekly secchi depth measurement will be taken, and water samples will be collected for dissolved inorganic nutrient and total nitrogen analysis.

Analysis of the sonde data will seek the optimal frequency intervals for measurements, by comparing data sets collected at two-hour and four-hour intervals with those from one-hour intervals.

d. Mud pH

In 2015, there will be three components to our clamflat pH work:

- A report will be written on the 2013 project results (see below) and will be submitted to be published in a scientific journal.
- Our sediment pH monitoring protocol will be presented and released to interested groups statewide, and two trainings will be conducted.
- We will engage in assessing ways we might in the future collect more data in the field to explore the relationship between low pH on mudflats/acidic sediment and nutrient pollution. We will also study more closely our data on oxidation reduction potential (ORP) and what the literature is saying about this parameter.

Background: Our concerns about ocean acidification, inshore nitrogen pollution creating conditions for coastal acidification, and reports about “death by dissolution” of baby mollusks unable to survive in low pH conditions led us, in 2011, to begin looking closely at how to assess the **pH levels of sediments in clam flats in Casco Bay**.

During the summer of 2011, we investigated the feasibility of various methods for collecting data on the pH levels of sediments in clam flats. Low pH is one of many factors that can inhibit the ability of clam spat to grow and prosper. We collaborated with Dr. Mark Green at St. Joseph’s College and Dr. Joe Salisbury at the University of New Hampshire (UNH), experts on the effects of ocean acidification on calcifiers’ ability to develop, or not, in acidic conditions, to design a simple protocol for data collection. The development of this protocol turned out not to be simple, as it took most of the summer of 2011 for us to get the bugs out of the protocol before we could finally use it to collect data in a consistent manner from flat to flat.

In 2012, we improved the protocol by upgrading our pH electrode to an Accumet AP 115, which allowed us to take measurements directly on the mud surface. We identified 30 flats to be sampled and collected data on sediment pH, seawater pH,

water temperature, and sediment oxidation reduction potential (ORP). Nitrogen pollution can have a cascading effect, eventually resulting in lowering the pH of marine sediments, and measuring ORP provides some indication of the degree of eutrophication or organic enrichment in the area.

We also collected sediment samples to be analyzed for percent carbon, percent nitrogen, and surface area, by Dr. Larry Mayer of the University of Maine Darling Center. ORP, percent carbon and percent nitrogen, together, can be used to determine the extent of organic enrichment of the sediment, which is important as we continue to investigate whether and how nitrogen pollution is the cause of coastal acidification.

Data was grouped by productive clam flats (actively being clammed) and flats which were not or were no longer productive. The data showed that average pH was lower at the sites located on nonproductive flats, and organic carbon and nitrogen concentrations were higher at sites located on nonproductive flats. This may be evidence of the effects of nitrogen pollution on the flats. More work needs to be done.

In 2013, we began to assess the critical question of whether or not measuring the pH of mud is the most efficacious way to measure the mud's acidity. A low carbonate saturation state is what actually drives the dissolution of calcifiers, and pH has been used as an affordable and relatively easy proxy for saturation state. To test the correlation between pH and carbonate saturation state, we measured both parameters concomitantly during the 2013 field work. We also improved our understanding of sediment pH temporal and spatial variability by focusing on just one clam flat ("site") but collecting much more data, visiting the flat seven times between June and September and sampling at a number of places throughout the intertidal zone. Recompence Cove clam flat in Freeport was selected as the study site. The stations were determined prior to the first monitoring event and marked with wooden stakes. Water temperature and salinity were measured, then sediment data was collected along two parallel transects running perpendicular to the waterline from the high intertidal to the low intertidal. These two transects were 5 meters apart and included 5 sampling points ("stations") each, with the samples and measurements being collected at the waterline edge of the outgoing tide. The stations were about 30 meters apart. Each station included 10 rounds of sediment measurements, including sediment pH, sediment temperature, and 3 rounds of sediment ORP. Sediment samples were collected at each site and analyzed for carbonate saturation state. Sampling frequency was twice per month in June, July, August, and once in September. Dr. Green and Dr. Joe Salisbury of the University of New Hampshire are collaborating with us on this component of the project, and the laboratory analysis was done at no cost to Friends of Casco Bay.

In addition, we deployed live clam spat (baby clams) to assess the effect of low pH in the mud and to obtain visual evidence. The spat were provided by Dr. Brian Beal's shellfish hatchery at the Downeast Institute in Machias. We developed and tested a clam spat exposure bioassay, using the hatchery-reared spat, deployed in mesh-covered PVC tubes on different parts of the flat, left on site for varying lengths of time (1, 3, and 7 days). After retrieval, the clam spat were examined and

photographed using the Bowdoin College Scanning Electron Microscope to determine the extent of dissolution.

Again, pH was higher in the productive region of the flat and lower in the unproductive region. pH levels were similar between transects, and also showed a negative correlation with sediment temperature; higher sediment temperatures resulted in lower pH values. The clam spat bioassay was incomplete but did provide us with a good protocol to work with as well as a few images of “pitted” clams, indicating that dissolution may be taking place at the study site.

Our goal for 2014 was to collect strong visual evidence that clam dissolution is occurring in the sediment of Casco Bay. We refined our protocol for deploying clam spat and set up another round of spat deployment experiments. One to two-millimeter spat were purchased from the Beal hatchery in Machias, and were deployed for one-week and two-week periods. Spat were retrieved after the appropriate time period by removal of the sediment and sieving with a one millimeter sieve. Measurements of sediment pH and temperature were taken during both deployment and retrieval. Retrieved spat were cleaned and preserved, and then imaged at the Southern Maine Community College Microscope Lab. Most of the spat showed evidence of pitting, regardless of deployment period. Photos of this evidence appear in our report *A Changing Casco Bay*, scheduled for public release on April 28, 2015.

e. Sampling Runoff on the Bay

In 2014, we tried to assess the presence and amount of **pollutants in stormwater runoff** in the Presumpscot River plume (near the Fort Gorges profile site). We sampled during a dry-weather event, a moderate rain event, and a major rain event. The reason for this effort was to make public any evidence of pollution contents in runoff water on the Bay, water we characterize as “anything but fresh.”

We had Katahdin Laboratory analyze the samples for bacteria, metals, organics, pesticides, nitrogen, suspended solids, and caffeine. A data sonde measured water temperature, salinity, dissolved oxygen, pH, and turbidity.

The only appreciable differences found in the samples from the three different events were increases in total suspended solids, bacteria, and nitrogen, with the highest results seen in samples collected following the major rain event.

There will be no sampling of runoff from the Presumpscot River **in 2015**.

f. Stormwater and Sediment Sampling

Through our historical Stormwater Sampling Program, Research Associate Mike Doan has collected stormwater from pipe outfalls, catch basins, and small streams, for analysis of various fertilizer and pesticide compounds. This data has been instrumental in effecting behavioral changes in residents of neighborhoods in which these compounds have been detected in the runoff.

We have eight years of stormwater sampling results from 22 sites all around Casco Bay. We detected the presence of specific pesticides, including fungicides and herbicides. (We have seen references linking these chemicals to cancer, reproductive problems and birth defects, and we will work to identify those specific scientific sources and clarify whether they refer to work done in the field or laboratory, and whether the effects are on humans or other creatures). Our sampling has also revealed the presence of nitrogen and phosphorous, components of fertilizers, at all of the sampled sites; these nutrients can pollute drinking water wells and when washed downstream can cause algal blooms, degrade marine water quality, and create conditions that worsen coastal acidification. Once they reach the Bay, certain pesticides (pyrethroids) can settle out in the sediments and threaten the health of marine life. These compounds are used in ornamental lawn care and for flea, tick, and mosquito control; however, once in the environment, they can negatively impact marine species, including larval lobsters. As Gary Fish of the Maine Board of Pesticides Control (MBPC) and recipient of a Friend of Casco Bay Award says, “A pesticide that will kill a bug can kill lobsters and crabs.”

We collaborated with the MBPC and the University of Maine to do this work. In 2009, working with MBPC, samples were taken of both stormwater (at three locations) and sediments (at nine locations). In 2010, we sampled sediments at two sites for pyrethroids. In 2010, MBPC did sediment sampling themselves. During 2014, we added the results of the most recent MBPC sampling to our tables and maps, plotting both FOCB and MBPC data. The presentation of these data at BayScaping socials builds fast awareness among neighbors throughout our community and motivates resistance toward applying these compounds heedlessly.

In 2015, Mike will assist MBPC with site selection for another round of sediment sampling for analysis of pyrethroid compounds, with a particular focus on habitat for juvenile lobsters.

g. Eelgrass

Eelgrass is a vital necessity in estuaries, providing a variety of key ecosystem functions, from nursery to filter to stabilizer to buffer. Dr. Hilary Neckels has been continuing efforts started by others to assess the health and stability (or lack thereof) of eelgrass beds in Casco Bay. Friends of Casco Bay has played various roles in supporting these efforts over the years. In 2015, we may be called on again to assist with some elements of field work; we will participate if there funding is provided. Regardless of potential field work, we will continue to serve on a steering committee that discusses the work.

h. New Meadows Region

The water quality of the New Meadows region of Casco Bay is severely degraded. In 1999, Friends of Casco Bay got involved with the New Meadows River Watershed Partnership, a then-active coalition of citizens, nonprofit organizations, and municipal, state, and federal officials concerned with the health of the New Meadows River. From 2009 to 2011, Friends participated in an effort to determine

the feasibility of removing or modifying the causeway that impedes tidal flow between the New Meadows Lake and the upper New Meadows estuary, **one of the least healthy areas of Casco Bay**. Due to strong opposition from local quahog harvesters and abutting land owners about removing or modifying the causeway, the effort to restore tidal flow was tabled. In addition, significant changes in leadership in the coalition and the lack of a clear direction caused the coalition to meet very infrequently, now rarely. In spite of these setbacks, Friends continued to monitor the health of this embayment each year through our volunteer program and occasional staff led projects. Starting in 2000, we deployed an unattended sonde to collect data for a three-week period in July each year at the upper New Meadows; after 13 years of collecting data we decided in 2014 to discontinue this.

In early 2014, there seemed to be renewed interest in meeting as a coalition to discuss options. Many coalitions agree that replacing the causeway with a bridge will be the most effective – albeit expensive – option to optimize flow. Some local residents disagree. Since the quahogs have been harvested out to a large degree, there is less opposition from harvesters, and there is the possibility that water quality will continue to decline due to the lack of filtering by quahogs which are no longer there. One bad episode of a heat wave combined with resulting low dissolved oxygen in the water may produce another pogie die-off this summer. In 2015, we will participate in coalition meetings if they occur.

i. Maine Coastal Observing Alliance

In December 2013, eight coastal citizen monitoring groups, from Casco Bay to Blue Hill, joined together to discuss the feasibility of conducting a pilot study in 2014 to look at worst-case water quality conditions in the mid-coast region of Maine. This survey of Maine's coastal water quality is the first undertaken since a 1996 Maine Department of Environmental Protection (DEP) examination of regional conditions coast-wide. This new effort is known as the Maine Coastal Observing Alliance (MCOA) and represents 7 conservation organizations who collected the data and 4 academic institutions who are offering guidance (Georges River Tidewater Association, Medomak River Land Trust, Rockport Conservation Commission, Damariscotta River Association, Maine Sea Grant, Gulf of Maine Research Institute, Friends of Casco Bay, Kennebec Estuary Land Trust, Sheepscot Valley Conservation Association, University of Maine Cooperative Extension, and University of Maine Darling Marine Center).

This 2014 pilot project was designed to project worst-case conditions of late summer when water temperatures are highest, biological activity is greatest, and low pH and dissolved oxygen are most likely to occur. This study gathered data on pH, temperature, dissolved oxygen, nutrients (total nitrogen and phosphorus), chlorophyll, salinity, and turbidity in 8 coastal estuaries and embayments between Casco Bay and Blue Hill Bay.

Results of the study using the data collected are being worked up by researchers at the Darling Center and should be available in Spring 2015.

In 2015, Friends, namely Citizen Stewards Coordinator Peter Milholland and Mike, will continue to participate in MCOA as the collaboration continues to develop. The Ocean Acidification Commission recommendations released in December 2014 (see Baykeeping section), cite MCOA as a vehicle for future data collection on acidification in Maine, so we will be watching this closely.

j. Data Management:

Murphy Water Quality Database: The platform for our water quality database, known as Murphy, written in DOS in 1994, needed upgrading for some time, and during 2010-11, the original software designer, Sarah Rose Werner, redesigned the database platform in the relational database program Microsoft “Access.” This database is more user friendly by being Windows-based. During 2012-13, she and Peter continued to debug the new program and migrated much of the historical data into the new database. The migration to the new platform enabled us to have multiple users working on data at the same time, and has the ability for us to export to other users and data access portals, potentially enhancing our collaborative efforts.

In the fall of 2014, we were fortunate to add an exceptional new member to our staff, Sara Biron, in the newly-created position of Database Assistant. Sara enters water quality data into Murphy (as well as fundraising data into Blackbaud Raisers Edge), assists with communications to members and volunteers, and helps host events for members and the community. Most significantly for the water quality monitoring program, Sara enters data collected by volunteer citizen scientists and is performing quality assurance checks on the data.

Our goals for 2015 are to:

- enter all historical nitrogen data
- enter profile data using a more efficient process, rather than hand entering data
- clean up historical data problems found through quality assurance anomalies
- perform a complete quality assurance check of all data from 1992 – 2014 for completeness and accuracy

These processes will improve our ability to analyze data in a more efficient and timely manner. Mike and Peter will work with Sara to determine the best ways to achieve the above.

We will continue to make our water quality data available to DEP, CBEP, and a variety of agencies, institutions, scientists, teachers, and citizens, and provide program consultations to other groups.

Mapping and statistics (Geographic Information Systems (GIS) and JMP statistical analysis): Mike continues to expand and deepen our GIS and statistical capabilities. This is crucial for analyzing our data and for making our data more accessible, understandable, and meaningful. **During 2015**, Mike will continue to look at the datasets of various water quality parameters we collect, to compare changes over time

and to contrast geographical differences in water quality site-to-site and region-to-region in the Bay.

Mike spent a considerable amount of time in 2013-14 analyzing data sets and reviewing those analyses with staff, to determine what to use in the report, *A Changing in Casco Bay*, which will be released later this spring. During that process, we continued to add to the list of ways we would like to review data sets, beyond what we include in the report, in order to determine not only what the data have to tell us, but also what might be the most optimal data sets going forward depending on what questions we want to answer. Our exploratory conversations will continue; in the meantime, Mike will maintain updates of the Casco Bay Health Indices, as well as produce other data analyses and briefings.

Maps, tables, graphs, and other visual depictions are fundamental to the effectiveness of our presentations, our web-based outreach and education, and our assessment of data for making decisions about the direction of our programs. We benefitted greatly during 2014 from the assistance of graphic design services, and we will continue to avail ourselves of these services as we identify the products that could most benefit. In 2015, Mike and Sarah Lyman, Development and Communications Assistant, will be working together to upload onto our website an interactive map of the Bay with our water quality data, anecdotal information about areas of the Bay, and other attributes such as video pop-ups.

2. Baykeeping

a. Casco Baykeeper

[staff oversight: Cathy Ramsdell]

With the retirement of our first Casco Baykeeper, Friends finds itself at a unique turning point in its history. There will be no “replacing Joe,” as he was Friends’ first employee and in many ways invented Baykeeping as he evolved it. Yet there is a role to fill that is an essential part of the identity of this organization. We have been evolving our dual model, one which embraces both the importance of having a Keeper who is our chief public advocate and spokesperson for the Bay, as well as the importance of fully engaging staff and board in bringing to the attention of our community specific issues impacting the Bay and what we each and all can do to help address those issues.

There are 3 parts to our plan:

1. Staff have been assigned various baykeeping tasks and duties while we are between bona fide Baykeepers; we have identified them with the issues below. As of the writing of this report, we have been advised by Waterkeeper Alliance to appoint an Interim Casco Baykeeper while we conduct our hiring process, and this will likely occur before the start of our new fiscal year, April 1.
2. We have started a series of organization-wide discussions about what the next iteration of Baykeeping here might look like. The first discussion was held on January 6, 2015, and we engaged Joe in a Q&A session with Board, Staff, and seven former Board members. The next conversation will be on March 24.

3. We will be forming a search committee in the spring to redesign the Baykeeper position based on our Defining Baykeeping conversations, and we will perhaps define a second position to be hired next year with attributes depending on what we do/don't get in our new Baykeeper. The Baykeeper application process will be rigorous, the opening will be posted in late June/early July, and we will begin culling applications and scheduling interviews in the fall.

b. Oil Spill Preparedness

[current staff oversight: Peter Milholland, Cathy Ramsdell, Mary Cerullo]

Despite our earlier successful collaborations, described below, we continue to be concerned about a decrease in the preparedness of the Port of Portland to deal with an oil spill. Less oil is coming into the port, which results in less funding generated from each barrel of oil going into the Surface Fund for oil spill preparedness, training, equipment, and response. As oil terminals downsize their staff and people retire, there are fewer people left with institutional memory, experience, and long term training.

Because of cost, all the terminals, except Portland Pipe Line, have pulled out of membership with the Marine Spill Response Corporation (MSRC), an Oil Spill Response Organization (OSRO). They have instead joined a less expensive OSRO, National Response Corporation (NRC), which has fewer resources at its disposal locally with which to tackle a spill. We are relieved that MSRC and its *Maine Responder* oil spill response vessel has recently re-signed a lease likely making Portland its home port for another next decade or so.

Casco Baykeeper Joe Payne approached the Coast Guard with this concern, and they agreed to organize a presentation by NRC to the oil spill response community to explain its capabilities. OSRO determined that NRC does meet all the requirements to comply with regulations regarding response capabilities, i.e., being able to have equipment on site within six hours after a spill. Even so, that would represent a decrease in our current capability, should the *Maine Responder* be relocated to Boston.

In addition, the Maine Department of Environmental Protection (DEP) has had staff turnover in its oil spill response division, with an irreplaceable loss in expertise and institutional memory. The head of the division was replaced with a good candidate, albeit one far less experienced. Both the Maine Department of Marine Resources (DMR) and Department of Inland Fisheries & Wildlife (IF&W) have lost staffers who acted as liaisons and natural resource trustees in oil spills.

The Coast Guard stepped up its efforts a couple of years ago by hiring oil spill response expert Wyman Briggs. The current Captain of the Port has an interest in maintaining oil spill response readiness. At this time, the agency seems to be balancing its responsibilities for oil spill preparedness with its Homeland Security mission.

In 2014, an effort began to rewrite and digitize the Area Contingency Plan (ACP), a significant effort and improvement that will incorporate hot links to provide responders with greater information and resources much more efficiently.

The Port of Portland has a strong history of oil spill preparedness for response, and it would be tragic to lose that capability. In the wake of the *Deep Water Horizon* crisis, the importance of preparing for a possible oil spill in Portland Harbor has never been clearer. In March 2010, we participated in the Coast Guard's simulated Spill of National Significance (SONS) exercise to determine our region's readiness for a major oil spill. Joe and Peter worked in the Command Center throughout the exercise, representing us as the only nonprofit invited into the center of the action. Since then, we worked with federal and state officials and local businesses to ensure that locally we are implementing the lessons learned in that exercise and from the spill in the Gulf of Mexico.

Joe served, at the request of the Coast Guard Captain of the Port, on the Maine/New Hampshire Area Committee on Oil Spill Preparedness and the Local Spill Management Team. Joe's term as a Governor's appointee to the Maine Oil Spill Advisory Committee (MOSAC) ran through the end of 2014, but he disclosed to us in December 2014 that MOSAC has become completely inactive, and he was not energized to push to resuscitate it. We hope that our new Baykeeper will be an active participant in the Area Committee, the Oil Spill Seminar, which Joe used to emcee, and other oil spill preparedness venues.

Despite the fact that there is critical need for a fine scale **circulation model** for Casco Bay, there is no funding available. This model would be useful in predicting oil spill trajectories, as well as providing insight on the fate of other pollutants and larval transport. This remains one of the most important data needs for our work. We will continue to build support from other organizations, including CBEP and US Fish & Wildlife, though the cost of such work is likely out of reach of potential funders at this time. Associate Director Mary Cerullo and Mike have been following up with a scientist at Bigelow Laboratory for Ocean Sciences who is expressing interest in pursuing this.

Heavy oils transport, including diluted bitumen (tar sands oil), through the Port of Portland

[current staff oversight: Mary Cerullo, Cathy Ramsdell]

During the past year, we continued to assert our concerns regarding the impacts of bringing heavy oil into the port, while continuing to dialogue with the Board and other citizens about the role we might play in the movement to make South Portland a "line in the sand" for the transport of tar sands oil.

In March 2014, Casco Baykeeper Joe Payne emceed the 15th annual Oil Spill Seminar sponsored by the Maine/New Hampshire Area Committee on Oil Spill Preparedness for the ninth time. The focus was on a topic Joe had recommended: Sinking Oil. He had hoped the seminar would generate dialogue about providing increased safety measures, but his tenure on the state's Maine Oil Spill Advisory Committee (MOSAC) ended in 2014; new appointments apparently were not made, so the committee has faded away. Sadly, the necessary planning and proactive discussions do not seem to have a helmsman.

We pressed the Coast Guard, the oil industry, and other stakeholders on our concerns should **Portland Pipe Line Corporation** (PPL) actually **reverse the flow** of one of its pipes to bring oil from Canada to the U.S. The company had publicly asserted that it did not have plans to do so. We highlighted these issues should heavy oil pass through or close to Casco Bay:

- The possible release of invasive species in ballast water discharges
- The lack of oil spill preparedness to deal with heavy bitumen oil (or any spill)
- The feasibility of preventing leaks in the pipeline itself

Over the course of 2014, the situation on this issue changed significantly, primarily because of:

- Passage of South Portland's "Clear Skies Ordinance"
On July 21, 2014, South Portland city councilors voted 6-1 for a land-use ordinance designed to prevent the bulk loading of tar sands oil on the waterfront, effectively preventing the loading of oil onto oil tankers at PPL's facility.
- Portland Pipe Line Corporation's dwindling business
PPL's fortunes appear to be declining, as fewer ships offload oil into the pipeline at its piers. In light of the company's declining business, the likelihood of the company having the resources to reverse the flow of oil in one of the pipes and bring in heavy oils, or oil of any grade, seems low.

More importantly, as mentioned above, a lack of resources for oil spill preparedness is a threat to port safety. The oil spill fund is supported by a tax on every barrel of oil that comes into the port. Revenue for this fund is dwindling.

It appears that the situation may heat up again **in 2015**. On February 6, 2015, the Portland Pipe Line Corporation filed a **federal lawsuit** against South Portland seeking to overturn the city's ban on loading crude oil into tankers in Portland Harbor. While not unexpected, any hope for a dialogue between business and concerned citizens seems unlikely. Executive Director Cathy Ramsdell serves on the Waterfront Alliance, possibly the only forum where such a dialogue could take place. While maintaining our "work with" approach, we have asserted in our Strategic Plan that Climate Change is an issue we are committed to addressing. We have just obtained a copy of the suit and Cathy will review it to be sure we at least understand PPL's legal positioning against the City of South Portland.

Peter Milholland has attended past Oil Spill Seminars and is a member of the Maine/New Hampshire Area Committee. He will continue to serve as FOCB's point person for oil spill and "Volunteer Coordinator" in the "Planning Section" as it related to the Maine/New Hampshire Area Contingency Plan, specifically for the Casco Bay region.

c. Dredging

[staff oversight: Cathy Ramsdell, Peter Milholland]

Our working waterfront is a critical aspect of Casco Bay's character, history, and economy. Making waterfront industry more efficient and cost effective can also have benefits for the environment.

Oil tankers, cargo ships, and cruise ships, along with fishing boats, island ferries, and recreational vessels, use the shipping lanes of Portland Harbor. Every decade or two, silt that washes into the channel from stormwater runoff must be excavated and relocated. Federal law requires that the shipping lane is maintained at a depth of 35 feet at mean low tide to ensure that oil tankers and other large vessels don't run aground and spill their loads into the Bay.

The **federal ship channel** was dredged in early 2014 and before that in 1998-99. Friends of Casco Bay was involved in the planning and oversight of the dredging operations in both instances. We support port maintenance to ensure the safe and efficient movement of ocean-going vessels as long as it is done in an environmentally-sound manner.

One aspect of both these dredge operations was the capture and relocation of lobsters burrowed into mud in the path of the dredge. Thanks to our initiative, and the successful relocation of lobsters particularly in the 1998-99 dredge, the Army Corps of Engineers now requires that relocating marine resources be addressed in the dredge permit application. During the 2014 dredge, green crabs were in abundance and the number of lobsters that were relocated were minimal; the reason for the low numbers is in dispute.

Of growing concern is **the need for dredging around the 20 or so commercial piers that dot the waterfront on both sides of the port**. Sediments flowing off city streets and out of the Combined Sewer Overflows in rain runoff and snow melt have made many areas around the wharves too shallow for vessels to tie up at low tide. Small vessels may even may run aground on "sand bars" at low tide. Dredging would allow bigger, fully-laden ships to tie up at docks.

The problem is that the sediments that have accumulated along the shoreline can contain decades of "legacy contaminants" from old factories and shipyards, as well as from modern-day urban runoff.

In 2004, Friends of Casco Bay sampled marine sediments at 20 locations in the Fore River and Portland Harbor to test for heavy metals, primarily found in oil and coal. Toxic levels of polycyclic aromatic hydrocarbons (PAHs) were found in 19 of the 20 sites sampled (3 of these sites showed truly alarming levels). In large amounts, PAHs are a threat to marine life, such as lobsters, crabs, and other bottom-dwelling invertebrates. Excessive levels of PAHs caused the closure of the lobster industry in parts of Sydney Harbor, Nova Scotia, in 1982.

Ironically, the contaminants in the mud around the piers are not from current uses of the wharves, but from long-gone industries and polluted runoff from city streets. Even though the wharf owner do not own the submerged lands around their piers, they are responsible for maintaining them under the Submerged Lands Act. This maintenance

includes bearing the costs of testing accumulated sediments for toxics and paying to dredge and relocate them.

Dredge spoils that contain toxic chemicals cannot be deposited at designated disposal sites at sea. Instead, they are generally shipped to approved landfills at a cost that can be ten times higher than at-sea disposal. Wharf owners cannot afford that option, so the muck continues to pile up.

For years, people have debated how to dispose of these contaminated sediments safely. Some have proposed creating a dredge disposal site within Casco Bay. We at Friends of Casco Bay would prefer NOT to add contaminated sediments to the ocean, **but** there is one affordable option that has been shown in other harbors to keep polluted sediments out of circulation. Several years ago, Casco Baykeeper Joe Payne raised the idea of using **Confined Aquatic Disposal**, or “**CAD cell**” for short, to dispose of the contaminated waterfront sediments. Essentially, a CAD cell consists of digging a deep hole beneath the Bay and isolating contaminated dredge spoils in it. Tests have found that the mud in CAD cells stays where it is put.

We contracted with Pierce Atwood attorney Bill Taylor to write a document outlining the issues around locating a dredge site in Casco Bay. His recommendation also was to create a CAD cell. The “Non-federal Dredge Committee,” a working group made up of city officials, waterfront business owners, Friends of Casco Bay, and other stakeholders, is exploring the feasibility and process of creating a Casco Bay CAD cell.

Friends of Casco Bay’s position is that moving mud and contaminants and sequestering them away from the shoreline would improve the health of the harbor. Our first priority is always going to be protecting the water quality of Casco Bay, but we view CAD cells as a practical solution to a difficult problem. If a CAD cell is approved, we will be part of the process to help designate a dredge disposal site within Casco Bay that will not adversely affect marine life, help ensure that the CAD cell is designed and located to keep the sediments in place, and work with the other members of the Dredge Committee, the State, and the Army Corps of Engineers to define disposal parameters in order to limit our CAD cell’s access to other regions’ dredge spoils.

Joe participated in early meetings of the Non-federal Dredge Committee; Cathy has taken over that task and will continue to serve on that committee until a new Baykeeper is in place. We are developing a Bay Paper (see section elsewhere in this plan) to help educate the community about the complex issues of dredging, to help ensure that area lobstermen, other harvesters, and members of the public have an opportunity to deepen their understanding of what is afoot.

Peter has been following the issue of **dredging and dam removal in the Royal River** and will continue to participate in planning meetings to ensure that any dredge material released by the removal of the dam does not adversely impact the marine environment.

We are also keeping an eye on proposals to **dredge other areas of Casco Bay**. One suggestion has been raised to deepen the pier where the **Chebeague Island ferry docks**.

d. Nitrogen Standard and Coastal Acidification

[staff oversight: Cathy Ramsdell, Mike Doan]

A Legislative Resolve authored by Friends of Casco Bay and passed in 2007 by the Legislature called for the Maine Department of Environmental Protection (DEP) to create a plan for establishing **nitrogen criteria** and limits in coastal waters.

We are trying to convince DEP regulators to set the standard at a protective level, which to us means 0.38 – 0.40 milligrams of Total Nitrogen per liter of seawater. This limit is realistic and reasonable, concentrations above this level begin to degrade critical habitat, and this level is supported by similar science, conclusions and actions taken in other marine regulatory regions.

In February 2012, the DEP disclosed to us that the Department would postpone submitting its recommendations for a standard until 2015. We vehemently opposed the delay, but no progress was made until a meeting in November 2014, when DEP staff members assured us that they would move forward with submitting a recommendation for a discharge standard in the next several months. We will stay connected, provide information, and encourage progress until action is taken.

We suspect that that most sewage treatment plants already would meet this 3.8 ml/L standard outside the mixing zone. We would encourage them to incorporate improvements to upgrade nitrogen filtration when they do their next facilities upgrade. We have proposed that DEP direct a modeling analyst to conduct CORMIX modeling studies around sewage treatment plant outfalls to confirm our expectation that most could meet a standard of .38 ml/ of Total Nitrogen beyond their mixing zones.

This nitrogen standard is a critical element of our campaign to limit **coastal acidification**. Excess nitrogen runoff triggers algae blooms. Once these marine plants die, decomposition releases carbon dioxide, making the water and mud more acidic. We have come to refer to this as Coastal Acidification and have worked diligently to get that term both into the lexicon and differentiated from Ocean Acidification. Acidic conditions make it difficult for clams and other shellfish to build and maintain their shells.

Friends of Casco Bay lobbied legislators and contacted our members and supporters to urge the **introduction and passage of an emergency bill, LD 1602: Resolve: Establishing a Commission to Study the Effects of Coastal and Ocean Acidification and Its Existing and Potential Effects on Species That Are Commercially Harvested and Grown along the Maine Coast**. The bill passed by an overwhelming majority in both chambers and went into law without the Governor's signature on April 30, 2014. It is the first such commission on the East Coast.

The resolve created an **Ocean Acidification (OA) Commission** comprised of 16 members, to assess the threat of Ocean and Coastal Acidification to Maine's marine resources and to recommend actions. The Commission members, which included Casco Baykeeper Joe Payne, worked diligently and completed its mandate on time and with unanimous agreement in December 2014. The Commission report is substantive.

Several bills that complement the OA Commission have been introduced into the new Legislative session. One bill proposed the establishment of an OA Council to continue deliberations for another 3 years, while another proposes a \$3M bond issue to help pay for continued work on OA. **In 2015**, while we may not wish to sit on the Council, Mike will attend the meetings should the Council be formed. Cathy is working with Conservation Law Foundation (CLF) and Island Institute (II) to explore strategic next steps and priorities we might recommend for use of the bond funds. Many of the goals in the OA Commission report resonate with work in which Friends is already engaged.

- We will continue our dialogue with CLF, II, and other partners.
- We will likely suggest scheduling a briefing with the Environmental Funders Network (steered by Maine Philanthropy Center) on the issues of Coastal and Ocean Acidification.
- Through our presentations and Bay Papers, we will continue to educate the public about the issue of Coastal Acidification and what can be done to combat it, particularly by limiting nitrogen pollution.
- Mary has been working to Implement Climate Change curriculum training for educators, one of the report's recommendations, using a revised Casco Bay Curriculum developed in 2014.
- Cathy will push for applied research funding to go to appropriate field scientists to focus on determining whether spreading shell hash or aragonite on clam flats will buffer the pH and lower acidity to levels that can support a productive clam fishery.
- Mike is setting up session to train clambers and other stakeholders in how to use our protocols to measure the acidity of clam flats to assess whether they might be viable areas for buffering and/or reseeded.

e. CSO's and the City of Portland

[staff oversight: Cathy Ramsdell, Will Everitt, Mary Cerullo]

Friends of Casco Bay helped influence the DEP and the City of Portland to get serious about eliminating combined sewer overflows (CSO's), and in FY08, we helped get a \$61 million dollar bond commitment passed by the City Council to fund Tier II of the CSO Abatement Program. We encouraged the City to have stakeholder meetings on CSO's. During FY12, consultants to the City on the design of Tier III recommended a 30-year time horizon. Action by FOCB staff, members, and supporters convinced the City Council to vote instead for a 15-year timeframe. A further \$169 million in funding was committed to meeting the goals of Tier III.

Joe, Cathy, and sometimes Mary have attended quarterly meetings on CSO's to monitor the City's progress on its CSO elimination plan. Cathy continues to attend

these stakeholder meetings. We will continue to make it clear to the City that not meeting deadlines will cause a reaction from us, up to and including legal action. We have become an important partner in the effort in this process in recent years, a welcome contrast to the strong resistance to our involvement in the early years.

Joe and Cathy sat on a committee to plan a strategy for implementing an equitable stormwater utility fee that spreads the cost of improvements beyond water rate-payers to all stormwater system users. A key milestone was reached on January 21, 2015, when the City Council voted unanimously to implement the recommended fee structure.

We continue to advise that more public education is needed for consumers to accept the strategy. The City has been working to make consumers see how they can reduce their bills by adopting “green” practices, such as replacing hardtop with permeable pavement and recycling stormwater runoff to water gardens.

We will continue to push the City to implement more low impact development (LID) practices throughout Portland. We will work directly with City officials, as well as independently, to conduct outreach efforts to encourage residents to reduce nitrogen pollution.

f. Monitoring Draft Discharge Permits

[staff oversight: Cathy Ramsdell]

In 2013, we hired the law firm Super Law Group to engage Reed Super, a specialist on Clean Water Act compliance, to help us draft comments to the Maine DEP regarding an application for a permit renewal to discharge heated effluent from Florida Light and Power (FPL) Cousins Island electricity generating plant, aka Wyman Station. We raised important issues regarding compliance with two key provisions of the Clean Water Act, which the State has failed to follow for any water discharge permits it has ever issued. However, response to our comments and any action on this permit were basically tabled. Issuance of a permit and comments on our submission are at the discretion of the DEP. EPA is overdue in publishing final regulations regarding “Best Technology Available” compliance. Until then, FPL continues to operate under the expired permit. We have sequestered funds for further work by Super Law Group, but the issue appears to be moot and does not seem to be worth pursuing until more clarity is issued by EPA.

In January 2015, we commented on a discharge permit application by the developers of a residential hotel, Diamond Cove Homeowners Association, on Great Diamond Island. We raised several issues and pointed out that the State had mistakenly represented the area around Great Diamond Island as Class SC waters. Rather, we demonstrated that the waters around the island are Class SB, which requires more stringent protection. We also raised several other issues in the draft permit regarding the impact on water quality of the proposed discharges. Almost all of the points we raised were endorsed by DEP in its response to the developer’s attorney and the draft permit was altered accordingly.

We will continue to monitor and respond to applications for discharge permits into Casco Bay. Even without an attorney on staff, we have managed to raise important issues when the health of Casco Bay's waters is threatened. Note that we do have a contingency fund to hire legal assistance as needed.

g. Legislation

[staff oversight: Cathy Ramsdell, Mary Cerullo, Will Everitt]

We are able to resolve many issues resolved through collaborative problem solving, but occasionally issues require legislation and the force of law. In some cases, our efforts are directed at blocking bad legislation.

In addition to the issues we plan to work on, we regularly deal with dozens of other issues that come in "over the transom." We continue vigilantly to monitor legislative initiatives at the local and state levels.

In 2014, our staff attended and/or testified at hearings on clams and worms, snow disposal, ocean acidification, EPA's clean power proposed rules, and more.

Items we worked on in FY15 include:

On the local level:

- **City of Portland ordinances: Plastic bags and polystyrene packaging**
For over two years, Cathy worked with the City of Portland's Transportation /Sustainability Committee on proposals to regulate plastic bags and polystyrene. A long-time Portland resident herself, she worked as a member of the Green Packaging Task Force to craft ordinances that encourage consumers to convert to reusable bags and that require retailers to limit the use of polystyrene packaging. On June 15, 2014, the Portland City Council voted to put a surcharge on plastic bags and to prohibit the use of polystyrene packaging by restaurants and retailers. On April 15, 2015, local retailers will begin charging customers \$0.05 for each plastic or paper shopping bag they use to package purchased goods. The packaging ordinance, which also goes into effect on April 15, 2015, prohibits restaurants, cafeterias, coffee shops, food trucks, and other food service establishments from distributing their products in polystyrene foam packaging.
- **Portland Stormwater Utility Fee**
Portland City Council's passage of the proposed structure for applying stormwater fees to all users on January 21, 2015, was the result of many months of work to create an equitable fee structure. Cathy and Joe participated in these deliberations as community stakeholders, at the invitation of a member of the Portland City Council and Portland's Public Services Department. In 2014, we sent out three separate email alerts to our members and supporters to engage them in the process.

On the state level:

- **Ocean Acidification bill**
In the 2013-2014 Legislative session, we lobbied hard to get the ten-member Legislative Council to introduce an "emergency" bill to study the impact of

Ocean Acidification on Maine marine resources during a session in which only emergency bills were heard. Then we testified and rallied our members to support this bill, which ultimately passed by a wide margin. Joe Payne was asked to serve on the 16-member Commission. He also served on the science subcommittee of the Commission to draft the report.

- Environmental Priorities Coalition (EPC) selected environmental bills
As an active member of the EPC, Friends supported bills that were vetted and selected by the 31-member coalition, which represents more than 100,000 Mainers. Cathy represents Friends on the Coalition.
- Microbeads
In January 2015, we sent an e-blast to our members and supporters about a bill to phase out the use of microbead plastics in personal care products and over-the-counter drugs. Cathy testified before the Environment and Natural Resources Committee (ENR), and the ENR unanimously recommended the bill (LD 85) ought to pass. These tiny synthetic plastic particles, found in shaving cream, facial scrubs, cosmetics, and other beauty products, pass through water treatment facilities and into our rivers, lakes, streams, and coastal waters. Microbeads absorb toxic chemicals and are ingested by shellfish, causing a health risk to people who consume shellfish.

In FY16, we will continue to keep our eyes and ears on activities that may generate upcoming legislation.

Issues we will be following at the local level:

- Bans on Pesticides and Fertilizers
Increasingly, community activists and conservation commissions are contacting us to ask about how they can limit the use of lawn chemicals in their communities. Some are considering education and outreach; others are looking at passing ordinances to ban the use of synthetic pesticides and fertilizers, on public property (as in Scarborough) and on private property (as in Ogunquit). This approach is gaining momentum; we responded to a backlash op-ed piece from a professional landscaper in the *Portland Press Herald*, and these activities have led to the Maine Landscapers and Nursery Association (MELNA) invitation for Mary to participate in two recertification workshops on the topic for its members on April 1, and April 8, 2015.

At the state level:

- Weakening of snow dumping rules
With huge snow piles accumulating from this winter's blizzards, public works officials are stymied to find enough land sites to dump the snow. Many want to dump the snow directly into the ocean, which requires a permit from DEP.

DEP had already proposed weakening the permit application from a site-specific application to a "general permit," which would be much easier for a municipality to obtain. We have long opposed dumping polluted snow in the ocean and in stockpiling it within 20 feet of the ocean, a practice currently allowed by the state.

Nearly twice-weekly snow storms in the winter of 2014-15 have strained the City's storage capacity for plowed snow. We have been working with the City's Public Works Department and DEP to ensure that the City seeks alternative sites and resists the temptation to dump snow into Casco Bay. The City is now on track to open two new snow dump sites with appropriate environmental controls in place, and DEP has fast-tracked permit approval.

- **Climate Change**
Several bills have been submitted in this session of the Legislature that have to do with climate change, including a bill to create an Ocean Acidification Council to further recommendations from the Commission report, an Ocean Acidification bond, and three bills on sea level rise. We will keep an eye on them all.
- **EPC Priority Bills**
Friends of Casco Bay is an active member of Maine's Environmental Priorities Coalition (EPC), a partnership of 31 environmental, conservation, and public health organizations representing more than 100,000 members. We lend our support to bills that we all have agreed merit our concerted effort to pass, even though they may not be directly related to the health of Casco Bay.

In January 2015, the EPC introduced the bills that the coalition will push for passage: a stream crossing bond, energy efficiency for housing bond, Land for Maine's Future bond, building solar energy infrastructure, updating Maine's endangered and threatened species listing, and improving lakes protection. We will likely not spend time or resources on grassroots lobbying on these bills.

h. Legal Capacity

It became apparent in recent years that our credibility depends not only on standing on solid scientific ground, but also, in many cases, on standing on solid legal ground, as well.

We built **legal capacity** by funding access to legal counsel through a dedicated fund for this purpose. This fund is to be used solely for legal work on programmatic Baykeeping-related topics and not for legal counsel on other organizational issues. In March 2011, the Board voted to designate \$6,000 from prior years' accumulated operating surpluses as a Legal Fund for Baykeeping support. This was later supplemented with another \$14,000.

The fund enabled us to hire expert legal counsel to address two important issues: the implications of establishing a dredge spoils disposal site in Casco Bay, and the submission of comments on a discharge permit for Florida Power and Light's Wyman Station power plant, which broke new ground by finding that the state and the regional EPA have never included compliance with section 316 of the Clean Water Act in their water discharge permits.

Near the end of FY14, the original funds designated from accumulated operating surpluses and used for the Legal fund were replaced by funds from the Baykeeping Fund at Maine Community Foundation, a strategic use of some of the accumulated earnings, and additional funds replenished and repositioned the Legal capacity fund. We now have \$30k at the ready, and our unrestricted, undesignated operating net assets balance has been restored.

3. BayScaping

With nitrogen and ocean acidification identified as critical threats to the health of Casco Bay, our BayScaping messaging is as important as ever.

Interactive **neighborhood socials** are the core of our BayScaping program and at the core of our messaging. BayScaping presentations now incorporate the dynamic relationship between nitrogen pollution from fertilizer runoff and coastal acidification. At these socials, our staff and volunteers share our data with residents in our communities, explain the harmful effects of lawn care chemicals, describe the dynamics of nitrogen pollution, and suggest Bay-friendly alternatives. We have found that providing evidence of pesticide use in a particular neighborhood (the results of stormwater and sediment collection and analysis) is one of the most compelling ways to inspire behavioral change.

Our BayScaping program relies heavily on peer pressure. Whenever possible, we take photographs of the neighborhood before the social to incorporate photos of “best practices” in yard care to use in the PowerPoint presentation. Participants immediately recognize the positive steps that their neighbors are taking, actions they can emulate. Since 2000, we have delivered more than 100 BayScaping “neighborhood socials” and other presentations for coastal and island community residents throughout Casco Bay and beyond.

In the past year, we distributed widely our two new BayScaping Fact Sheets, for downloading and as handouts. One offers seasonal easy-to-follow, ecological lawn care guidelines for the do-it-yourself home gardener. The other offers questions a homeowner should ask a professional yard care provider about his/her ecological lawn care practices.

We printed 1,000 copies of each fact sheet in December 2013. We began distributing them in spring of 2014. As of February 2015, we had only 210 copies of the do-it-yourself seasonal tips and 250 of the questions for lawn care professional remaining, meaning we distributed three-quarters of our fact sheets in less than a year.

During FY15, our staff, assisted by volunteers and Board members, educated more than 1,200 people about BayScaping through presentation and exhibits at community events all around Casco Bay, as well at all our events and other staff presentations:

- April 8, 2014: staffed an exhibit at Waynflete’s State of the Oceans Event
- April 26: staffed a BayScaping booth and conducted family activities at the Deering Neighborhood Family Fest, Portland
- April 29: conducted training for Cumberland County Master Gardeners
- May 3: Board member Pat Ianni presented a program at O’Donal’s Nursery in Scarborough

- July 16: presented a workshop to the board of the Willard Beach Simonton Cove Condo Association to try to persuade them to shift to a BayScaping lawn care provider we had suggested. They did!
- September 13: Greenfest, Portland's Monument Square
- December 2: presented BayScaping to Horticulture majors in SMCC's Turf Management course
- February 9, 2015: St. Mary's Garden Club, Falmouth
- March 5 Falmouth Public Library/Open to the public

In 2015, already we have been invited to present at the following events:

- March 17 Bath Garden Club
- April 1 Maine Landscapers and Nursery Association (MELNA) recertification workshop to address public interest in banning lawn chemicals
- April 1 Exhibit at Waynflete School State of the Oceans Event, open to public
- April 8 Pesticide Application Recertification Workshop
- April 26 Deering Family Fest

Media We continue to spread the BayScaping ethic through strategic media releases, social media, emails, newsletters, and letters to the editor. Of particular note, in December 2014, a *Portland Press Herald* Maine Voices op-ed by a Lawn Dawg chemlawn owner criticized Ogunquit's recently-passed ordinance banning use of pesticides on private property. His piece generated a strong reaction. Respondents cited our work in a letter to the editor and an op-ed; a follow-up Maine Voices article submitted by Cathy Ramsdell received widespread attention and support.

During FY16, we will:

- Meet with Toxics Action Center to discuss coordinating with Protect South Portland, to draft and promote a comprehensive ordinance for the City of South Portland restricting the use of nitrogen fertilizers and toxic pesticides.
- Promote our BayScaping fact sheets, starting in early spring, as people start to think about their lawns.
- Continue to more deeply integrate our nitrogen pollution and coastal acidification messages into our own BayScaping presentations and pass those on to Master Gardeners and other Champions for the Bay to carry the messages of BayScaping and Bay-caring deeper into the community (see section in Outreach on Champions of the Bay).
- Offer BayScaping presentations in response to requests, along with our other Speakers Series offerings, with particular emphasis on events that are open and can be promoted to the general public.
- Continue to collaborate with Maine Board of Pesticides Control, Portland Water District, grassroots (no pun intended) citizens for green communities groups (such as in Scarborough and Yarmouth), and neighborhood associations, to deepen the connections between lawn care practices and water quality in the Bay.
- Expand our involvement in discussions about the next steps to reduce the use of fertilizers and pesticides by increasing publicity about their impact on the marine

- environment. This will include working not only with those who would ban pesticides and fertilizers, but also with lawn care providers.
- Continue to share information with residents of communities who are working to promote and enact local ordinances to limit the use of lawn chemicals on public properties (Harpwell, Portland, Cumberland, Scarborough, and others). When such an ordinance was passed in Scarborough, proponents said their campaign had been inspired by data presented by Friends of Casco Bay.
 - Continue to spread the BayScaping ethic through strategic media releases, social media, emails, newsletters, and television opportunities, if and when possible.

4. Casco Bay Curriculum

We continue to work with teachers and educational administrators to disseminate the **Casco Bay Curriculum** in the community, and we continue to refine and update the working modules. Since education and collaboration are ways we engage the community to help us improve and protect the health of the Bay, the Casco Bay Curriculum is THE way we are able to get data about the Bay directly into the hands of local teachers in a form that will engage the next generation of stewards.

Background: For three of the summers between 2010 and 2013, Mary conducted three-day Teacher Institutes to help educators incorporate the Casco Bay Curriculum into their own curricula. These intensive workshops immersed 51 area educators in the original Casco Bay Curriculum. She has presented elements of the course and curriculum to educators at conferences of the Maine Science Teachers Association, Cornerstones of Science, Maine Environmental Educators Association, and the Gulf of Maine Marine Education Association, reaching more than 100 educators and school librarians. She also participated in educational events with the Freeport High School Earth Club, Waynflete School's State of the Oceans Event, Willard Fest, and others.

In FY15, we revamped the entire curriculum to make it more accessible and more relevant to issues confronting Casco Bay and beyond. The theme is **Climate Change**. A few original activities were retained, particularly those around *defining the Estuary*. We streamlined the number of activities. We incorporated elements of our report *A Changing Casco Bay* and developed several new activities on the local impacts of Climate Change. Now called *Casco Bay Through Time*, we focus on changes that are happening in Casco Bay and in the Gulf of Maine to help students envision changes that will continue to occur as a result of climate disruption.

Once again, we draw on scientific data to explain these concepts. Because of its emphasis on climate change, we believe this curriculum is appropriate for a broader age range than grades 4 through 6, which our first curriculum targeted. Some of the background readings and activities can be used to illustrate climate change to students in high school and beyond. These readings are not only useful background information for teachers, these in-depth, timely local and national news and scientific articles can help teachers meet the growing demand (through Common Core Education Standards) to provide students with more non-fiction reading.

In FY15, we held four local teacher trainings on the new curriculum for 31 educators:

- May 28: Peaks Island School

- October 1: Regional teacher workshop at our office, in which we offered Continuing Education Units (CEUs) from Southern Maine Community College for those who attended the workshop and the forum *Casco Bay Is at Risk* held September 24. This was well received. Teachers from Portland, South Portland, Westbrook, and more communities attended, from elementary through high school. Because we offered the workshop in Friends' conference room, we had to limit attendance to 12 participants.
- October 7: Training for education staff members of Gulf of Maine Research Institute who are responsible for designing the next year's LabVenture! school program for Maine 5th and 6th graders. They reported they had incorporated what they learned at both the teacher training and *Casco Bay at Risk* into student activities for a new LabVenture! program for 2016.
- October 10: Presentation at the Maine Science Teachers Conference
- Mary also presented to 16 educators at the National Marine Educators Conference in Annapolis, Maryland.

In FY16, we will

- Share the curriculum with educators as they request it. For example, we have been asked to do a teacher training for South Portland's 21st Century Community Learning Center, an after-school program for low-income students, on March 25, 2015.
- Wait a year before offering more teacher courses, as they require considerable time and effort, not only to prepare the course and materials, but in recruiting teachers as well.
- Continue to refine the curriculum as the opportunity arises, through partnerships with Climate Access, a national group that provides excellent training in Climate Change Communications, and with educational partners, such as Jan Piribeck at University of Southern Maine and Marina Schaufli of the Gulf of Maine Council on the Marine Environment, who are working on King Tides activities to illustrate sea level rise.

5. Storm Drain Stenciling

Unfortunately, storm drains are a tempting place for residents to dump dangerous pollutants. Substances commonly thrown down our storm drains include used motor oil, antifreeze, hypodermic needles, cigarette butts, pet waste, and yard waste. We launched our **storm drain stenciling** as a creative, hands-on way to build greater awareness about the need to reduce pollution in our communities. The program inspires volunteers to "take to the streets" to paint "do not dump" messages next to storm drains in towns around the Bay. We provide stenciling kits and easy-to-use instructions to help neighborhood groups organize stenciling events to educate their communities about their connection to the Bay and help reduce the amount of pollution and waste dumped into storm drains.

There are a number of benefits from this low-cost, easy-to-manage volunteer recruitment activity:

- community engagement
- hands-on activities that help the health of the Bay
- team building activities

- educational components

Storm drain stenciling is one of our major ambassadorial programs. Audiences for this activity include schools and after-school programs, neighborhood groups, Scouts, Summer Camps, and somewhat surprisingly, Corporate Days of Service.

2014 saw increased use of our kits by school groups and scout troops, particularly in South Portland and Portland. We linked up group leaders with those cities' stormwater coordinators who helped with the choice of streets to cover and often provided in-school lessons.

More than 336 storm drains were stenciled in 2014.

Groups who used our kits included:

- Girl Scout Troop #1507, Sagamore Village, Portland
- SMCC, South Portland
- Lyseth Elementary School, Portland
- King Middle School, Portland
- Aucociso School, South Portland
- RBC Wealth Management, Old Port, Portland

In FY16, we will maintain and restock our five stenciling kits and 9 stencils. We will schedule and coordinate their use to allow each group to keep a kit for about a week. When Peter Milholland is on merit leave (June-August), Sarah Lyman will respond to volunteers' inquiries and will cover the logistics for use of our storm drain stenciling kits.

We will lend our kits to student and youth groups as they request them, offering our "how to" DVD of Surfer Steve and a compilation of curriculum activities specially developed to complement this community project. We also will provide and encourage use of our informational door hangers, which explain to neighbors why the volunteers are doing this service learning project. Before volunteer stencilers embark on their project, we put them in touch with public officials in their community, such as the stormwater coordinators, to ensure adequate safety measures are taken. We also provide information on how to engage the news media in their project.

We will provide staff support to corporate groups that use the kits as a Day of Service activity. We will help those groups select areas to be stenciled, accompany them on their route and visit the various teams to restock kits and hand out refreshments.

We will encourage social media posts by taking photos of a stenciling groups holding our banner "Casco Bay belongs to all of us!" to be used on social media, in their company or community newsletters, and for newspaper press releases.

6. Pumpout Program

Our Pumpout Program continues to play multiple and essential roles – the direct reduction of sewage discharges into the Bay, the 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 2015, his sixth 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.

The Pumpout Program comes very close to break even because of reimbursements and dedicated funding. The DEP reimburses us for 75% of the costs of running the program, fees for service contribute some support, and the City of South Portland Water Resources Division and the Portland Water District through CBEP make modest contributions to support the program. [During 2008, the Board concluded that the program should continue on the condition that it is financially self-sustaining and can be adequately staffed.]

Thanks to our work in this 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 designation, 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 accessible at all tides and operational. We will continue to notify DEP when stations are nonoperational.

7. Volunteers

We will continue to recruit volunteers for a wide variety of activities, most notably, the Citizen Stewards Water Quality Monitoring Program, as well as for other field work, beach clean ups, office tasks, and events, using word-of-mouth, website, posters, Face Book, and our *Raisers Edge* integrated email marketing tool, Net Community.

Volunteer Appreciation and Members Annual Meeting Event: Each year we celebrate the work of all of our volunteers, including our Board, and take care of the legal business of Annual Meeting as expeditiously as possible. See section below on Outreach and Events for a description of the event.

Summer Internships: We are accepting applications from college and high school students for our limited number of summer internship positions. We typically invite two bright students to work with us during the summer in non-paid summer internships. The positions vary between 20 and 40 hours per week for roughly 8-10 weeks, beginning in late May and ending mid-August. Our philosophy is to engage these students in all aspects of our operations at Friends of Casco Bay. Our goal is for them to best understand how a small non-profit environmental organization works in the larger arena of environmental advocacy, hands-on science, and community engagement.

Blue Mussel Surveys: The objective for the 2013 Blue Mussel (*Mytilus edulis*) Survey in Casco Bay was to engage volunteers in hands-on field research to determine presence or absence of Blue Mussel beds and relative percent cover of existing beds as identified by the Maine Department of Marine Resources (DMR). This project evolved from discussions with some of our members who stated that they had been noticing a complete loss of blue mussel beds from areas where they were historically abundant. Of the 70

mussel beds identified by the DMR to exist in Casco Bay, 21 were visited in 2013, and an additional 5 were visited in 2014. Of those 26 sites, only 7 had mussels and were identified were sparsely covered areas.

In 2015, we plan to continue this effort by soliciting volunteers from Friends and from the Maine Island Trail Association (MITA) to help groundtruth the remaining mussel beds. In 2014, this project was coordinated by Friends Board member Ann Thayer as part of her Master Naturalist work. Ann will be the primary contact and will keep track of areas mapped by volunteers, and she will utilize an online reporting tool created by Friends staff in 2014.

8. Events and Public Relations: Community-based Educational Outreach

In addition to advocacy and research, educational outreach is our third tool for achieving our mission to improve and protect the environmental health of Casco Bay. We have a variety of methods for accomplishing this: the Baykeeper Speaker series, our Bay Papers used for our Champions for the Bay effort, other publications, online communications channels, media cultivation, and community events, both ones that we host and those we participate in with our community partners.

Staff members work closely with a number of other organizations, serving on boards and advisory committees or volunteering at events and conferences. We partner with, among others, Environmental Priorities Coalition, Maine Association of Nonprofits, Casco Bay Estuary Partnership, Waterfront Alliance, Cumberland County Soil and Water Conservation District, Cooperative Extension, Southern Maine Community College (SMCC), Gulf of Maine Marine Education Association, and many more. All of these efforts lead to greater visibility for our mission and the organization, expanding our audiences and promoting more speaking opportunities.

(a) Events

New community events we participated in this past year:

In addition to our own outreach events, which drew more than 1,300 guests, staff and board members participated in groups' community events to reach another 950 people, through exhibits at Patagonia Film nights, LL Bean Community Event, Waynflete State of the Oceans Event, Deering Family Fest, and these **two new events**:

- Walking the Working Waterfront, June 7, 2014: more than 120 people strolled down Union Wharf to tour the new Baykeeper boat. This event was part of an expanded Old Port Festival.
- Greenfest, September 13, 2014: approximately 200 people stopped by our exhibit on Monument Square in Portland. Many tried their hand at storm drain stenciling.

Friends Special events:

As a community organization, people look to us to use the idea of protecting the Bay to bring people together. This gives us the opportunity to engage directly with people who care about the Bay and our work. Friends of Casco Bay hosted several new special events in the past year:

- **Champions for the Bay**, July 23, 2014

About 60 of our closest supporters – board members, volunteers, and other friends – participated in training in how to use and disseminate our Bay Papers. The event was received enthusiastically and generated requests for more opportunities to ask questions about Bay issues and FOCB's role in various efforts to protect the Bay. The feedback inspired the theme for our Volunteer Appreciation/Annual Members Meeting: a Q&A session on our work.

- **Casco Bay Is at Risk**, September 24, 2014, also to mark our **25th Anniversary**
Casco Bay Is at Risk was an update—and a wake-up call—on threats to our coastal waters. We counted 259 attendees who received the latest information behind the headlines about acidifying coastlines, invading green crabs, dwindling clam populations, and disappearing eelgrass beds, from Casco Baykeeper Joe Payne, Research Ecologist Dr. Hilary Neckles, Professor of Marine Ecology at UM Machias Dr. Brian Beal, and President of the Maine Clammers Association Chad Coffin.

Because we knew our speakers would be delivering a lot of negative news, we created a handout for people to take away: “You Can Make a Difference in the Health of Casco Bay.” This 2-sided publication showed event attendees that there are things they can do in their own lives to help the Bay. This document has become one of our Bay Papers. We also handed out 25th anniversary cake.

Educators were encouraged to attend, incentivized by the offer of CEUs from SMCC or certificates of completion to meet teacher recertification requirements (see Curriculum section above).

- **Defining Baykeeping Conversation**, January 6, 2015
Certainly a major focus of **FY16** will be identifying the role and attributes of the next Baykeeper. The Board, staff, and seven invited friends of the organization, all former Board members, were invited to interview Joe Payne during his last week as Casco Baykeeper. They queried him about his insights into the role of a Baykeeper, the challenges and benefits of the position, and what attributes we might look for in the next person to hold the title of Casco Baykeeper.

The next Defining Baykeeping conversation is scheduled for March 24, 2015, with other sessions as needed as we redefine the job description and application process for our Baykeeper search.

- **Retirement Celebration for Joe Payne**, January 21, 2015
Our iconic Casco Baykeeper Joe Payne retired on January 9, 2015, after nearly 24 years as Friends of Casco Bay's first employee and the seventh Waterkeeper in the world. He was awarded the honorary title of Casco Baykeeper Emeritus. Nearly 230 people feted his accomplishments at a public celebration at DiMillo's Restaurant. Donations to the Emeritus Fund, created to honor Joe, have topped \$75,000 to date.

We also continued our popular events:

- **House Party**, August 8, 2014

This event at **Orrs Bailey Yacht Club** had 90 guests. House parties are crucial for garnering new members and for helping us deepen relationships with donors. These also lead to many of our speaking engagements. We continually track possible venues for the future and evaluate all opportunities as they arise.

- **Seventh Annual Wild & Scenic Film Festival**, November 8, 2014
We again hosted a sold-out crowd at USM's Abromson Center. Staff secured media sponsors, in-kind sponsors, and cash sponsors, as well as items for the raffle. Board members helped out with some of these tasks, as well as helping to host the event.
- **Donor Appreciation Event**, December 3, 2014
Joe Payne announced his retirement to 84 guests, our elite donors, at the Cumberland Club. This successful and enjoyable event has continued to grow each year.
- **Volunteer Appreciation & Members Annual Meeting**, February 11, 2015
About 57 members and volunteers attended this year; 17 water quality monitors were recognized for achieving milestones in service, ranging from 5 to 20 years. This event provides the opportunity for us to thank those who roll up their sleeves and work the hardest for the Bay alongside our staff, including our Board, our water quality volunteers, other volunteers, and our community partners, family, friends, and colleagues. The event was held for the first time in the College of Pharmacy at University of New England in Portland. It proved to be an ideal location.
- **Baykeeper Speaker engagements**
One of Friends of Casco Bay's strengths is making scientific data understandable, and identifying what we in the community can do differently to motivate people to change their habits in ways that will have positive impacts on the health of the Bay. People want to do the right thing. These events provide an opportunity for us to bring our data and science into the community in a personal and easily understandable form. This builds knowledge about the issues, informs people about what they should and shouldn't do that can protect the health of the Bay, strengthens our relationship with attendees, promotes a sense of shared ownership of the Bay and its health, and increases the credibility, visibility, and relevance of the organization.

Altogether, staff members presented to more than 2000 people last year. Joe Payne and Mike Doan presented several programs on Friends of Casco Bay's work, with special emphasis on Coastal and Ocean Acidification, at Nestle Waters corporate headquarters, Waterkeeper Alliance/River Rally conference, Royal River Conservation Trust, Phippsburg's Sabino Hall community association, as well as to many scientific audiences. Mary Cerullo, other staff members, and Pat Ianni gave several BayScaping presentations and distributed BayScaping materials at several community events (see BayScaping section). Cathy Ramsdell led several workshops on the fiscal management of non-profit organizations for the Maine Association of Non-Profits.

In 2015, Mike Doan and Peter Milholland have already committed to several presentations:

- February 11 our Volunteer Appreciation and Annual Members Meeting
- March 3 Westbrook/Gorham Rotary
- March 19 Maine Shellfish Advisory Council in Ellsworth
- March 31 Maine Water Conference
- May 5 Yarmouth Village Improvement Association
- TBD, summer/fall in the mid-coast region, a workshop on Assessing Your Flats - Measuring the pH of Mud

Baykeeper Speakers Bureau events in FY16

There is a steady demand for us to give presentations in the community, which we service through our Baykeeper Speakers Bureau. We will continue to respond to requests from community members to provide our staff and affiliates to speak in FY16. We will also make presentations at our house parties and similar events. We will continue to keep a log of all presentations given, along with the number of attendees.

In an effort to keep the list of offerings fresh and relevant, we recently revamped our presentation titles, which are posted on our website:

- A Changing Casco Bay: *An update on the health of our coastal waters*
- Save the Steamers! *How coastal acidification is killing our clams*
- How We Take the Pulse of Casco Bay: *Water quality monitoring*
- Bay Papers: *What you can do—and get others to do—about threats to Maine's coast*
- How Is Climate Change Affecting Casco Bay—and You?
- Casco Bay Begins in Your Backyard: *How to have a green yard and a blue bay*

Conferences

In 2014, Friends of Casco Bay was involved in a number of conferences in a variety of roles, including the annual Maine/NH Oil Spill Seminar on March 4, 2014, Waterkeeper Conference held in Pittsburgh, PA, May 29-June 3, 2014, the Maine Philanthropy Conference last spring, and the National Marine Educators Association annual conference held in Annapolis, MD on July 21-24, 2014.

In FY16, Cathy Ramsdell will attend the Waterkeeper Alliance conference in Boulder, Colorado, June 10-14, 2015.

(b) Bay Papers

We have developed a format for presenting key issues and topics we are working on, which we refer to as an elevator speech. Each begins with an engaging question, poses why the issue is a problem for the Bay, and suggests to the listener or reader what we can do about the problem. The Bay Papers are a key tool for educating our community about the Bay and our work, for speaking with one voice about our issues, for promoting advocacy, and for creating more ambassadors around the Bay who understand what we as an organization and what we as a community need to understand about our relationship to this special resource. As completed, each is posted to our website and is available at our

events. In addition to our four Bay Papers (CSOs, ocean and coastal acidification, nitrogen, and snow dumping) we added You Can Make a Difference in the Health of Casco Bay.

More Bay Papers are in the pipeline, so to speak, and include and are not limited to the following topics: dredging, banning fertilizers and pesticides, dumping snow directly into the ocean, what Friends of Casco Bay does and how we accomplish our mission, “What is a Waterkeeper?”, recreational boat discharges, oil spill preparedness, and our water quality monitoring program.

As an organization, we strive to both lead and learn. Our Champions for the Bay event on July 23, 2014, provided a useful model for how to continue to engage targeted audiences. We will continue to use this model at events in FY16.

In FY16, we will:

- Prioritize our potential Bay Paper topics and create a timeline to produce them on a more regular basis. As always, we will be prepared to address emerging issues in a timely manner.
- Add more topics, starting with Dredging.
- Continue to use the Bay Papers as the foundation of our *Champions for the Bay* campaign.
- Solicit feedback from specific audiences we wish to reach (e.g. boaters, anglers, lobstermen, business owners).
- Revise current publications (Nitrogen Pollution, Ocean Acidification, Snow dumping, CSOs)

(c) Other Publications

A Changing Casco Bay report. This report was completed and printed in late fall of 2014. The release of the report, which had been scheduled for early December 2014, was postponed when Joe announced his retirement, causing a media frenzy. The release has been rescheduled for April 28, 2015, in conjunction with a press conference, and coordinated around pre- and follow up media opportunities, reporter cultivation, op-eds, social media, etc. Ultimately, we hope that our community outreach about the issues of coastal acidification and nitrogen pollution will result in support for legislation to address these issues.

This report on the health of the Bay was developed in conjunction with 19 Oaks, a marketing and design firm that we chose after an extensive RFP process. We have been excerpting some key visual products pulled from this report for use in our presentations, posters, and more.

9. Media and Public Relations

The overall goal of our media and public relations strategy is stated in our strategic plan: *Our Community work will deliver the Baykeeper messages, seek broader visibility and recognition of our work, and increase the engagement of the public as members, board members, volunteers, friends, and advocates for the Bay.*

The mission of our Public Relations is to make Friends the “go to” organization when one thinks of Casco Bay. To that end, we cultivate our media relations by submitting releases, story ideas, photos, and op-eds, personal communications, being available for interviews or just to provide background information, and a standing offer to take reporters on the Bay to do stories that aren’t even about us.

We cultivate the public with publications, email alerts on issues and events (“e-blasts”), letters, and social media, presentations, and community events, both our own and participation in others’ events.

(a) Traditional Media

We continue to push our message out to various media connections. We will continue to seek opportunities to run feature stories on our work, as well as on our staff, board, and volunteers. We will continue issuing press releases on anything newsworthy, from the appointment of new board and staff members, to program initiatives, funding successes, crucial partnerships, interesting or unusual collaborations, volunteer accomplishments, and hot issues. We will continue to be very responsive when we are contacted by the media.

Media coverage

In 2014, we had more than 430 media mentions (articles, interviews, announcements, etc.), including 10 paid ads/sponsorships on MPBN radio and 345 pro bono promos for our Film Festival on WCLZ.

So far **in 2015**, we have been mentioned in more than 25 media outlets, including letters to editor in *Portland Press Herald*, Cathy’s Maine Voices op-ed, Joe’s interview on WCSH-TV’s 207, and stories on the decline in mussel populations, the vote to approve Portland’s Stormwater Utility Fee, and the state bill to phase out microbeads.

Media Cultivation

A key part of our outreach work is cultivating our media partners to help them understand and report on issues important to our mission. We provide background information on issues and keep them informed of our actions so that not only will they cover our activities and announcements, but when a crisis arises that impacts Casco Bay, they will think to contact us.

In FY16, some of our media outreach efforts will be to:

- Hold a press conference on April 28, 2015, at Ocean Gateway to release our report *A Changing Casco Bay*, postponed from December 2014, in order to attend to media interest in Joe’s retirement and to address ongoing issues and organizational planning.
- Place Cathy on television and radio programs such as 207, *Maine Things Considered*, *Mainewatch*.
- Once our new Baykeeper is hired, we will work with our cadre of reporters, editors, and producers to put that person in the public eye.

- Cultivate reporters at major publications for exclusive issue-oriented interviews. “Redefining Baykeeping” and our new Baykeeper would seem to provide compelling “angles” to interest a high-profile “glossy magazine.”
- Submit op-eds that appeal to readers’ emotions, such as Cathy’s response to an op-ed on the use of lawn chemicals.

(b) New Logo in 2014

In FY15, we unveiled a new logo that freshens our look and provides us with greater design flexibility while maintaining some image continuity from our previous three logos. The logo redesign was not part of our operating plan. The opportunity to redesign the logo arose as we began to use our social media avatar, which Kristen Stetson designed in 2013, to a greater degree. The new logo has been applauded by board members, staff, and our members as it:

- is aesthetically pleasing, bright, striking, and compelling.
- shows water as habitat, representing our *raison d'être*.
- is evocative of the roundness of the earth, of water droplets, and of the sky and the oceans.
- maintains organizational continuity by using elements of our current logo, the bird and the fish, which we use on our newsletter and other places.
- is designed to work with a standardized four-color pallet that we have incorporated into many of our newest materials, including our newsletter and our BayScaping fact sheets.

(c) Online Communication Channels

As a small nonprofit, we choose to place the highest priority on our website and email communications. Social media is powerful, but when implemented on a small scale, the power is overshadowed by other more traditional online campaigns. This is why we have made the strategic choice to limit ourselves to two social media networks currently. In the future, with more capacity or a change in priorities, we may add social networks. We will monitor the effectiveness of each social media tool we use and will switch to more effective tools as they arise. We plan to dedicate 15 hours per week to our online communication channels. These estimates are based on case studies and other best practices research. If we spend less time in any one area, we will be less effective; if we spend more time, the rate of return is not high enough to make it worth the effort with our limited time resources.

The following comes out of Sarah’s more detailed online communications and social media plan, created after extensive research and training in current best practices. Important to keep in mind are the differences between our proactive communications plan and our reactive communications plan, which in large part can depend on both the availability of staff combined with access to the best language for response in a very short time frame.

Our current online communication channels and goals:

Website	Goal: 50 posts over the next year
Email	Goal: 1 email every 2 weeks
Twitter	Goal: 5-20 tweets each work day

Facebook

Goal: 5-10 posts each week

Our online communication plan consists of two parts: a steady stream communications plan and a set of campaigns that have very specific goals. We work closely with the Associate Director and other leadership staff to ensure that both parts are in line with our other communications.

Goals of our steady stream communications plan:

1. Maintain and continue to build audience
2. Outreach and promotion of our online presence: drive traffic to our website, build our email list
3. Advocacy: educate about our issues, get people to take a particular action such as signing a petition, celebrate advocacy wins, and thank supporters
4. Increase the affinity for the Bay: remind people how important Casco Bay is to our quality of life. Casco Bay belongs to all of us, and it takes the community working together to protect the Bay

Campaign Plan

A campaign is a time period with clear start and end dates during which we push to achieve a specific goal through frequent, targeted posts. During the campaign, we will measure our goals very closely by paying attention to what's happening and what people are saying—this allows us to adapt the campaign on the fly. After the campaign, we will review the metrics to measure our successes and failures. These efforts should enhance our cross communications regarding policy and positioning.

Campaign

Advocacy

Recruit Water Quality Volunteers

Visibility for our Water Quality Monitoring work

A Changing Casco Bay Report Release

Promotion of our Champions events and Bay Papers

Promotion of the Wild & Scenic Film Festival

Promotion of the Annual Meeting

Introducing the new Casco Baykeeper

Timeframe

Year round as issues arise

February - April

March - October

April- May

Year round

June - November

2 months prior

Late Fall – Early Winter

At the May 2015 Board meeting, we will review actual metrics from the prior fiscal year.

B. 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. Key to this effort is the effectiveness with which we engage our community about issues impacting the Bay. Through cultivating our donors' appreciation and understanding of our work and increasing Friends of Casco Bay's name recognition in the community, our goal is to broaden the breadth and deepen the depth of our support. Relationship building is crucial to our work.

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. Yet, as the Emeritus Fund (\$75,000 raised in eight weeks!) and the Baykeeper Boats Fund show, there is perceived value in our work and capacity in the community to support it.

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

Our balance sheet remains strong, with plenty of working capital, no long-term debt, and three robust restricted funds to support our work: The Emeritus Fund for Advocacy, the Baykeeping Fund, and the Boats Fund. We strive to generate annual operating surpluses, at least before depreciation, a noncash expense.

Development staff, including the Executive Director, will continue to seek input and focus by collaborating with program staff, engaging the Board's Development/PR Committee, and conducting regular internal development meetings.

During FY16, we will endeavor to broaden and deepen our sources of funding. In order to meet our fundraising goals, we will implement the following plan:

- All solicitations for membership renewals, annual fund appeals, and other special appeals will continue to be sent with **hand-written notes**, as is our standard policy and practice. We will continue to work with the Board on penning notes on all Annual Fund appeal letters and, as we began to do more frequently in FY14, our renewal letters.
- We will develop a direct mail piece for **a large acquisition mailing**, similar to the ones we tailored for the Boats Fund (sent to a list of registered boat owners living near Casco Bay) and the Emeritus Fund. While this mailing will not have a hand-written note, it will be of high quality, in full color with pre-printed notes.
- We will raise money for both **operating and capital** needs. We will solicit **unrestricted and restricted** support for specific projects and events that are in this operating plan.
- We will review Maine Philanthropy Center's updated Foundation Directory and ensure we are meeting all appropriate deadlines. We will update boiler plate **proposals** for General Operating, Baykeeper Capacity Building, Environmental Monitoring, Acidification/Clam Flat Monitoring, capital needs (example: new phone equipment), and other programmatic needs.
- We will continue to harness the power of our Raiser's Edge database (REi), refining our reports and using the program to mine our contacts for **prospects**. This year, we are integrating our Foundation fundraising plan with our monthly renewal process, better ensuring that we meet request deadlines.
- We will develop a reporting method to **reconcile** the database's records with our organizational accounting records in a more timely manner. Work on this began last fiscal year.
- Development staff will work closely with the rest of the staff to ensure that our data is up-to-date in the **database**. Our new Database Assistant position (Sara Biron, hired in FY15) is critical to this goal.

- We will fully launch a campaign to recruit smaller donors to become monthly donors, joining the **Calendar Islands Circle of Friends of Casco Bay**, a program that we began in FY14. The full launch of the Calendar Islands Circle was delayed due to the Baykeeper transition.
- **Special appeals** will again be designed as part of the Annual Fund appeal, to tailor asks to interests.
- We will work with our outreach staff and our Board to improve our art of **storytelling**. We will continue to improve the way we are speaking to specific audiences who already have a strong relationship with the Bay, for example, boaters, islanders, and business owners who depend upon the Bay.
- We will continue to develop our **corporate solicitation** plan, including improvements in working with the Board to solicit more sponsorships for events, including our 8th annual Wild & Scenic Film Festival.
- We will continue our **boat donation program** with Maritime Funding Association of Maine, which was established to handle boat donations for the benefit of marine-related nonprofits in the state.
- We will continue to set up **visits** with major donors, as well as with corporate and foundation representatives. We will continue to use our new Baykeeper boat to deepen our relationships with supporters, inviting donors on tours, trips, and profiles with staff. We will contact the Board, as visits are set up, to garner intelligence and to see if and when Board members can accompany us.
- We will design and host a variety of **events** (see section on Events). This year, due to limited staff capacity, we will organize far fewer events than last year, focusing on one house party (or perhaps two if the right opportunities present themselves), the film festival, our donor appreciation event, and our volunteer recognition event/annual meeting.
- Our **Film Festival** will continue to be one of our signature events. Much of the solicitation of sponsorships has shifted from being done by the Board to being done by staff. We will continue to evaluate the plusses and minuses of the event.
- We will continue working with individual **board members** to find the best ways to leverage their social capital and engage them in friend and resource building with us. Our data show that sending personal solicitation letters, hosting house parties, and inviting friends, colleagues, and family members to our events are excellent ways to garner new members and deepen relationships with existing donors.
- We will finish drafting our **gift acceptance policy** (we began working on this in earnest in FY15 but work was delayed due to the Baykeeper transition).
- We will continue to lay the groundwork for a **planned giving society**. In FY14, working with the Board, we developed a name for this society: the Anchor Society.
- We will continue to track key Development **metrics**. We will look at Development metrics at the close of each fiscal year to see how it compares to last one. We will report these metrics to Directors at the prescribed board meeting that focuses on development (tentatively scheduled for May 2015).

C. Technology and Capital Assets

From FY11 through FY14, we invested in a number of organizational strengthening and capacity building activities:

- Completed the Baykeeper Boats Fund Campaign, resulting in the launch in September 2013 of the *R/V Joseph E. Payne* and the establishment of the Boats Fund at Maine Community Foundation to support the operations of the fleet.
- Constructed a new Strategic Plan 2013 – 2017
- Transitioned to the development management system in the cloud, The Raiser's Edge (REi) by Blackbaud.
- Installed a new network server, new website platform, and upgraded accounting system.
- Transitioned our 403(b) retirement plan to Principal, saving significant fees for the participants and significant time and aggravation for administration.
- Updated the emergency succession plan, now part of the annual process of personnel reviews.

As a result of these efforts, we have seen marked efficiency improvements across the organization.

During **FY16**, we will:

- Continue the process of getting the **water quality database** completely populated with data and getting it functional.
- Continue upgrades in **computer workstations** and software.
- Install a new **phone system** for the office
- Maintain our data sondes and investigate new options in **sonde technology** for water quality monitoring, including the use of telemetry for data transmission; this will be the beginning of considering the pros and cons of a shift toward more-automated data collection as part of our water quality program.
- Continue to understand the operations of the new boat.

D. Management and Administration

1. Staff

Staff at the beginning of FY16:

Cathy Ramsdell, CPA, CGMA, Executive Director

Mary Cerullo, Associate Director

Peter Milholland, Citizen Stewards Coordinator and Boat Captain

Mike Doan, Research Associate and Boat Operator

Will Everitt, Director of Development

Sarah Lyman, Development and Communications Assistant

Sara Biron, Database Assistant

Jeff Fetterer, Office Manager

Jim Splude, Pumpout Coordinator and Boat Captain

While we are “between Baykeepers,” we have staff covering various baykeeping tasks and duties (see section headers in the Baykeeping program plan above). Cathy is acting as chief advocate and policy person and is attending the meetings of the Nonfederal Dredge Committee, the Waterfront Alliance, and as always, the Environmental Priorities Coalition. We are relying on Mike more than ever for solid scientific grounding in our work, and he and

Mary are both covering various Casco Bay Estuary Partnership committees and both are attending CBEP board meetings. Mary continues to provide invaluable support, now to Cathy, on Baykeeping topics, from legislative issues to Bay Paper drafts and rewrites. Mike, Peter, and Mary are delivering more presentations and are sitting on panels when invited. Peter has been monitoring two different activities in Yarmouth, the dredge project, which is now complete, and dam removal meetings concerning two dams on the Royal River. Will has stepped more fully into a role of strategic political thinking with Cathy, and Sarah Lyman is working closely with Cathy, Mary and Will on Bay Paper design and re-writes, as well as social media messaging on various Baykeeping topics. Peter, Mike and Jeff are all available to help investigate tips and inquiries that come into the office about potentially questionable activities that may be having a negative impact on the Bay.

During the period of Peter's merit leave, from May 25 to August 24, staff members will be assigned various tasks and responsibilities. Mike and Will are going to support the needs of our volunteer Water Quality Monitors during the 5 sampling Saturdays that Peter will be away. Sarah will coordinate beach clean-ups and storm drain stenciling activities. Mike will be responsible for coordinating and staffing profile trips. Our boating needs will be attended to by Mike, Jim Splude, and if need be, Board members Malcolm Poole and Jack Thomas.

We update our emergency succession plans annually, for use in the (we hope unlikely) event of an unplanned temporary absence of staff (each year during staff reviews). These plans identify the key roles and responsibilities of each staff person, the particular staff members who would fill in on certain responsibilities in their absence, and the activities so unique to that individual that in their temporary absence likely would just not be attended to. We will also continue conversations about nonemergency succession planning.

Over the past twelve years, Friends of Casco Bay has restructured its staff carefully by redefining job descriptions and hiring accordingly when there has been attrition or opportunity. The staff turnover rate continues to be exceptionally low. We added the first new full time staff person in years this year, Database Assistant Sara Biron. This is creating much needed capacity by freeing up time for Sarah Lyman and Peter Milholland. During FY15, the Executive Director Cathy and Casco Baykeeper Joe, along with Board President Malcolm Poole and the Executive Committee, had deep and focused conversations about capacity in the Baykeeping program and defined succession planning. Ultimately, these conversations were curtailed when Joe announced his decision in November to retire by the end of the calendar year.

As mentioned above, we are now engaged in an organization-wide conversation to define the next iteration of Baykeeping, in concert with our mission and ensemble staff. Cathy will appoint the Search Committee in the spring, with the goal of having a new hire in place by December. We will also put together a plan for orienting the new Baykeeper – to our mission, our ethos, history, our organization, Waterkeeper Alliance, our community, and our members, supporters, and collaborative partners.

We have assembled and retained an excellent team by maintaining a good benefits package and by running a fair and flexible workplace. In return, we expect a high quality of engagement, appreciation of the big picture and attention to detail. We provide professional development opportunities across the board, such as attending classes, workshops, seminars, and conferences.

Compensation was frozen in the FY09 / FY10 / FY11 budgets; 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. Given the continued surplus and/or break even results, and the need to bump up the base, 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.

For FY15, a 3% increase in base pay is included in the proposed budget, along with maintenance of the benefits package.

2. Financial Stability

Friends of Casco Bay has a strong balance sheet and three dedicated funds used to support operations: the Emeritus Fund for Advocacy, the Baykeeping Program Fund, and the Boats Fund.

Monthly interim financial reports will continue to be prepared, and budget versus actual figures will be monitored closely with timing versus permanent differences addressed in the narrative.

We will continue to engage **Board** members around policy issues, Bay Paper content, program efforts and accomplishments, board governance, events, and community connections to resources, financial and otherwise.

IV. FY16 Operating Plan Summary

Monitoring:

- Continue Citizen Stewards Water Quality Monitoring
- Continue profiles
- Deploy unattended data sonde at SMCC dock with Alkalinity testing
- Conduct workshops for communities in how to assess the pH of your mud flats
- Discontinue stormwater plume sampling; collaborate with Maine Board of Pesticides Control on sediment sampling
- Collaborate on eelgrass efforts, New Meadows Region meetings, Maine Coastal Observing Alliance
- Maintain and refine water quality database input

Baykeeping

- Coverage of Baykeeping tasks and responsibilities by staff
- Continue assessing Oil Spill Preparedness in the Port, follow heavy oil issue(s) in South Portland
- Support and influence Nonfederal Dredge Committee activity re CAD cell in Portland Harbor
- Continue to push for Nitrogen standard with DEP
- Follow progress resulting from Ocean Acidification Commission report
- Continue attending Portland Stakeholder meetings to track progress on CSO separation projects
- Continue to monitor draft Discharge Permits and comment as appropriate
- Follow development of local ordinances and state legislation; alert membership to issues and testify as appropriate
- Maintain awareness of possible need for legal counsel on specific Baykeeping issues

BayScaping

- Continue to offer Bayscaping presentations to groups
- Collaborate with other groups who are considering pesticide and fertilizer bans and ordinances

Casco Bay Curriculum

- Curriculum now emphasizes Climate Change and Casco Bay
- Continue teacher trainings as requests come in; Summer Institute on hold for a year

Storm Drain Stenciling

- Keep kits stocked and maintained, and coordinate activities as requests come in

Pumpout Program

- Continue to offer pumpout services for 2015 season

Volunteers

- Recruit and care for volunteers at all levels: water quality, beach clean ups, office assistance, events, blue mussel surveys
- Continue to recruit interns throughout the year

Events in FY16

- Press conference to release the report *A Changing Casco Bay*, April 28
- House Party on Peaks Island in August
- Possible 2nd house party, to be determined
- 8th Wild and Scenic Film Festival, Nov 7

- Major Donor Appreciation Party, Dec 3
- Volunteer Appreciation and Members' Annual Meeting, late January 2016
- Participate in events sponsored by others as appropriate, such as State of the Bay Conference sponsored by CBEP on Oct 13, and many others

Media and Public Relations

- Continue to generate press releases and other media outreach, cultivate opportunities for larger media coverage, respond readily to inquiries from the media
- Ramp up our online communications channels

Development

- Continue cycles of membership mailings, annual appeals, proposal submissions
- Conduct large acquisition mailing
- Ramp up efforts on Calendar Islands Circle of Friends of Casco Bay as our monthly donor vehicle
- Continue excellent maintenance of database, work on reconciliations with accounting, work up Planned Giving and other giving policies

Technology and Capital Assets

- Continue working on functionality of Murphy (water quality database)
- Continue computer workstation upgrade program
- Install new phone system
- Investigate various aspects of sonde technology as we explore utility of unattended sonde data collection

Management and Administration

- Continue coverage of Baykeeping responsibilities by staff; pursue appointment of interim Baykeeper
- Continue deep cross-organizational conversations to define next iteration of Baykeeping
- Form Search Committee, conduct search, hire new Baykeeper, design orientation plan
- Deploy staff to cover Peter's summer responsibilities while he is on merit leave
- Maintain excellent benefits package and workplace milieu
- Monitor Budget versus Actual closely

V. FY16 Budget Highlights

The Operating Plan for FY16 describes our plan for improving and protecting the Bay for the year April 1, 2015, through March 31, 2016. The Operating Plan describes the work and the rationale for our efforts in four sections: Programs, Development, Technology and Capital Assets, and Administration.

A budget is the identification of the resources we believe it will take to accomplish our Operating Plan, and it represents a best guess at a point in time based on reasonable assumptions. Reality will prove to be different. The FY16 Budget is presented as a two-page summary with a Supplemental Schedule. These two documents are formed from a collection of detailed information, including an 11-page, 400+ line item detailed budget, and detailed worksheets on such areas as compensation, benefits, and estimated endowment transfer calculations.

To meet the goals of our FY16 Operating Plan, expenses are budgeted at \$827,705, a 2% decrease from the prior year. As usual, expenses include a \$12,000 contingency line item; if we

do not have significant, unexpected expenditures, this expense line will help “absorb” some of the depreciation expense. The Budget identifies \$830,443 in operating revenue from a robust variety of sources, a 2% decrease from the prior year. In FY15 we incurred expenses related to the Baykeeper retirement, which accounts for some of the difference between the two years.

This budget does not contain a line item Budgeted Contingency Transfer to Operations Not to Exceed. In the past this has reflected the potential use of accumulated surpluses from prior years, located in the Net Asset section of the Balance Sheet in the Board Designated Contingency Fund, to absorb an operating deficit, should one occur. The good news is that while budgeted many times as a “gap filler,” ranging from \$26,000 to \$45,000 each year, we never had to utilize it. Given that the new boat, with a total cost basis of \$234,707, accounts for over \$23k in depreciation expense each year, and that we have come to realize that we can raise funds for significant capital items such as the boat, our goal is to achieve break even or better results in operations before depreciation each year, a noncash expense.

The beauty of having a fiscal year that ends on March 31 is that we can experience the results of (calendar) year-end giving, assess where we are in relation to where we thought we would be (an ongoing process, actually), and then together explore options to best meet our goals of delivering on our plan while striving to do better than break even.

The Budget to support the FY16 Operating Plan will be fodder for discussion at our upcoming March 10th Budget Workshop. The FY16 Budget highlights:

- Increase in base compensation, maintenance of benefits, and an allocation for search costs as we work toward bringing the new Casco Baykeeper on board
- Modest increases in some Program expenses, as well as in rent, fuel, and monthly technical support costs
- 5% transfer from the Baykeeping Fund at Maine Community Foundation as the annual allotment in support of the Baykeeping Program
- Release of funds transferred in 2015 from the Baykeeping Fund to underwrite annual commitment to Emeritus retirement costs
- Use of \$10k of the Boats Fund and \$10k of the Emeritus Fund for Advocacy to support the boat operations and advocacy efforts, respectively.