

ANNUAL REPORT

July 1, 2010 - June 30, 2011

GREAT POND FOUNDATION



GREAT
POND
foundation





GREAT POND FOUNDATION

President: Thomas Wallace

Treasurer and Secretary: Joe Loughrey

VP Science and Education: Dr. Burt Fleming

Vice President: Robert Hughes

Directors: William Darman, David Luening, Brendon O'Neill, Mark Patinkin

Director, Special Projects: John Coskie

Director of Science and Education: Robert Woodruff

Foundation Administrator: Barbara Conroy

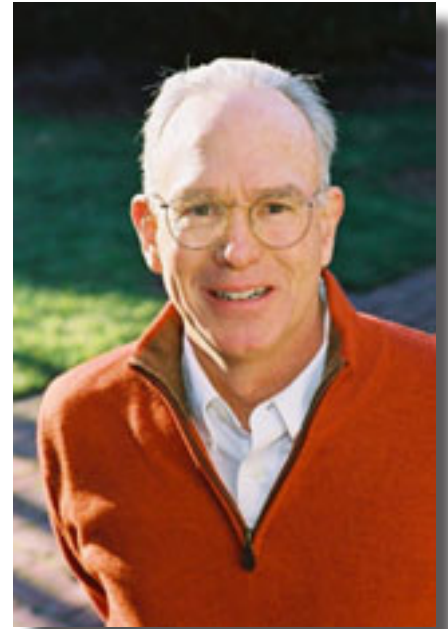
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From the President...

August 2011

Dear Supporters and Friends,

It is with great pride that we at the Great Pond Foundation offer this Annual Report as a snap shot of our last twelve months of activity, use of proceeds, and goal of preserving this unique habitat on a number of different levels. The Edgartown Great Pond, the largest “Great Pond” on Martha’s Vineyard, is a remarkably diverse habitat which has been cherished by both the Island’s indigenous community as well as the earliest of European settlers. Dating back to colonial times, the term “Great Pond” has held a unique definition and legal status by the community. With the assistance of Federal, State, Town, riparian owners and numerous charitable and private sources, there is a remarkable cohesive effort to better understand and preserve this extraordinary resource.



While encouraged by the work that is being done, we continue to be acutely aware of what is yet to be learned about the diversity, strengths and weaknesses of this delicate habitat that we all find so enchanting. Dredging of the shallow sandbar in front of the cut is substantially improving the effectiveness of openings to the sea, helping to mitigate the excess nitrogen in the pond. A study underway this summer will provide further insight as to the extent and patterns of circulation throughout the pond, of particular significance in the several more remote coves. Among other priorities is our participation with the Martha’s Vineyard Shellfish Group on the oyster restoration project, dramatically enhancing the pond’s ability to restore and maintain improved water quality. The simple process of a single oyster cleaning 15 gallons of water a day may well be one of the most important factors in a healthy pond. To an unprecedented degree, we are analyzing water quality, pond circulation, and other key factors that hopefully will enable us, working with many others, to preserve this pristine environment.

With a very active and involved Board of Directors along with a dedicated group of volunteers and advocates, we are pleased with the accomplishments to date, yet are very aware that major challenges and unanswered questions remain. We only hope that you will continue to support our broad economic, political, and scientific efforts to allow Edgartown Great Pond to be the model of the healthy environment that it so deserves.

Respectively submitted with appreciation of your continued participation,

A handwritten signature in black ink that reads "Tom Wallace". The signature is written in a cursive, flowing style.

Thomas C. Wallace
President



Joe Loughrey , Treasurer

The Great Pond Foundation is a 501(c) (3) tax-exempt organization. Financial support for the organization is provided largely by contributions from individual donors. The fiscal year of the Foundation runs each year from July 1st through June 30th. Tax returns filed by the Foundation are available for public inspection on our website www.greatpondfoundation.org.

FISCAL YEAR 2011 (FY'11)

As reported last year, we successfully raised over \$800,000 to buy a dredge (fondly nicknamed “Nessie”), tool it, and try it out in the pond. Other fundraising, however, slowed down significantly, leaving us with little money to support the work of the foundation, including dredging.

We did not know how much it would actually cost to operate the dredge, how much capital we would need to spend for retooling it as needed nor did we know how much capital to place in reserve for major rehaults and future dredge replacement. Nevertheless, we established what we believed to be a reasonable budget of \$320,060 for FY'11 and developed a plan to raise the money necessary to fund it.

[Although our FY'11 financials have not yet been audited, the numbers presented herein may be viewed as very close estimates.]

Revenue was \$269,127 of which \$264,300 came from 40 generous individuals who live around the Pond. Seven of these donors contributed \$15,000 or more, and another three donors gave \$10,000 each.

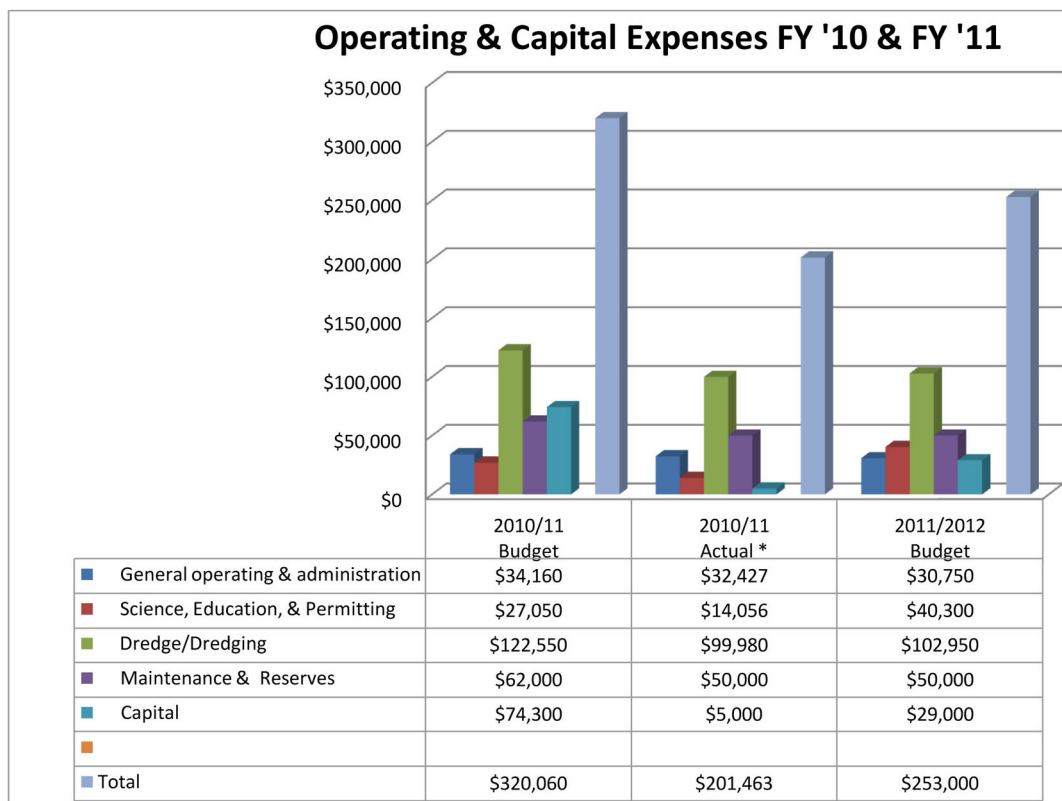
Campaign Actuals		
Location	Actual	Donors
Boldwater	\$155,000	24
Kanomika	\$53,200	10
Jobs Neck	\$30,000	3
Herring Creek	\$20,000	1
Crackatuxet	\$5,000	1
Turkeyland	\$1,000	1
Grand Total	\$264,300	40

With prudent management, we were able to keep our expenses down to \$201, 463 which included \$50,000 to be held in reserve for dredge replacement costs. We spent about \$70,000 less on capital to support the dredge; the operating cost of the dredge was about \$23,000 less than expected; we spent about \$13,000 less in Science, Education and Permitting; and we put \$12,000 less in reserve than we originally planned. As a result, our revenues during the year were \$67,664 greater than our expenses.

Even with significantly lower expenditures, we managed to accomplish a lot. As you will read in the rest of this report, the dredging program was very successful as was the third year of the oyster planting. As a result, the pond is much healthier and looks better this summer. Lastly, after a lot of experimentation and hours of consulting with experts, we developed a plan with the University of Massachusetts School for Marine Science and Technology for a circulation study to determine whether other dredging sites on the Pond would be beneficial. If so, the study will help us work with the regulatory authorities and aid us through the permitting process.

Despite not meeting our fundraising objective, we had a good year financially.

We estimate that the GPF budget for each of the next several years will be between \$225,000 and \$275,000. As the chart below shows, the FY' 12 budget is estimated to be \$253,000, approximately \$50,000 more than the actual expenditures for FY' 11. The additional amount will be used to fund the circulation study and purchase capital items to improve dredging operations, It is unclear how the outcome of the circulation study will impact those figures. If the study determines that other areas of the Pond need to be dredged, securing permits will be a necessary (and most likely expensive) process.



*Unaudited

FUNDRAISING PLANS

We have established a fund raising goal of \$250,000 in FY'12 and in each of the several years thereafter. As we reported to you last year, the GPF's goal for FY'11, FY'12 and FY'13 is to develop the funding sources necessary to sustain the work of the organization without having to rely as much on the same individual donors that have supported the GPF in the past.

Our plan is to diversify our funding base by:

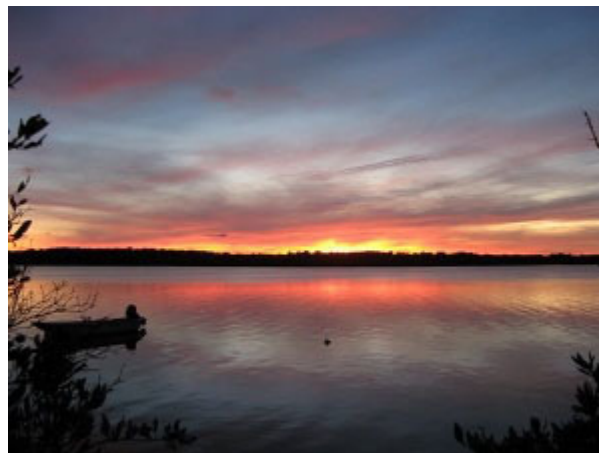
1. continuing to broaden the support from those living around the Pond,
2. gaining support from people who live in the watershed,
3. building on our good relationship with the town of Edgartown to gain financial support for operating the dredge in the Pond,
4. creating new income opportunities by discussing private dredging contracts with groups from other ponds, and
5. securing grants from foundations and government agencies that care about our work.

We will discuss this plan at neighborhood association meetings throughout the summer as well as meetings with individual or small groups of donors and potential donors.

Your continued support is very much appreciated.



IMPROVEMENT PROJECTS	IMPROVE CIRCULATION	INCREASE SALINITY	REDUCE NITROGEN	PARTNERS
Cut Opening to the sea	X	X	X	Town
Oyster Restoration		X	X	Shellfish Commission, MV Shellfish Group
Dredge Delta Channel to Opening	X		X	Dredge Committee, Aquamarine, Shellfish Commission
Dredge Other Permitted Areas	X	X		Shellfish Committee Dredge Committee
Seek Dredge Permits – Other Areas	X	X		Shellfish Committee Dredge Committee
Water Quality Monitoring	X		X	Mass Estuaries Project, Town
Manage Invasive Species			X	Nature Conservancy, Sheriff's Meadow Foundation
Reduce Fertilizer Use			X	Owners in Watershed
Algal Bloom Research & Remediation			X	Woods Hole Oceanographic, URI Marine Science
Sensible Development Rules			X	Planning Board, MVC, Ponds Advisory Committee
Sewer Existing Developments			X	Wastewater Commission
Monitor Nitrogen Plume (test wells)			X	Town, Nature Conservancy, MVC
Public Education Programs			X	Various
Monitor New Denitrification Technologies			X	MVC, Board of Health





Dredge Acquisition and Permitting...

John Coskie, Director of Special Projects

We continue to make progress with the program of scheduled dredging of Edgartown Great Pond. Our plan to dredge each fall and early spring was accomplished with three successive operations in: March of 2010, November/December of 2010, and March/April of 2011. The result of these dredging operations has been an unprecedented number of days open for the cut. These longer and more productive openings flush the Pond to ensure that local septic systems, fertilizers, plume from the former Town landfill, and poor circulation do not compromise the health of the Pond. Historically, the norm was for the cut to be open for three to seven days.

Beginning with the March 2010 dredging operation, the cut has been open as follows:

Spring 2010	21 days
Summer 2010	8 days
Fall 2010	19 days
Winter 2010	no opening
Spring 2011	60 days!

Many factors contribute to the effectiveness of the opening, including the water level, tide, winds and a clear path through the delta. Dredging the path through the delta is just one factor in the success that we are experiencing.

FALL 2010 OPERATION

The fall dredging operation lasted almost seven weeks, although only four weeks were spent on actual working time due to the incredibly harsh rain, wind and cold. On several occasions the dredge was forced to seek refuge in the confines of Slough Cove.

The operation began on November 1st - four days after the fall opening had closed. After a week of work, a storm caused in a five day wash-over which deposited a huge volume of sand in an area that had already been dredged. This was the first of many storms, followed by an early freezing of the Pond beginning in mid-December.

In the end, we bowed to Mother Nature and modified our work by creating a narrower and shallower channel than was planned. The early freezing also prevented the winter opening because lowering the Pond height and decreasing the temperature would have had an adverse effect on the shellfish.



WINTER/SPRING 2011

The spring operation began in the first week of March and continued virtually uninterrupted for four weeks. With the weather as our friend for this operation, we were able to achieve our objectives thanks to the hard work of Steve Ewing and his team from Aquamarine.

Since this was the team's third operation, we decided to bring a representative from Keene Engineering (the dredge manufacturer) on site for an operational and maintenance audit. We needed to see if we were operating the dredge optimally for maximum productivity. The representative was impressed with our newly acquired skills and offered just minor tweaks to maintenance and operations.

Our dredging operations ended on March 19th, and the Pond was opened. Because there had been no winter opening, the Pond was very high. This height, in conjunction with two rounds of dredging without an opening and favorable tides and winds, resulted in an opening that lasted 60 days!



2011 AND 2012 PLANS

The overall plan is to continue our established schedule of two dredging operations every twelve month period with the next launching scheduled for the last week of October 2011 and continuing for four to six weather-dependent weeks.

We plan to launch operations again in February 2012, after the ice breaks and the risk of freezing has diminished. In an effort to reduce our dependency on fundraising, we have been looking into several private dredging opportunities in Edgartown Harbor. These potential jobs, although small in scope, would provide diversity to our income stream.

In the coming year we are planning to acquire two pieces of capital equipment for support of the dredge: a small enclosed trailer for the storage of tools and parts and a work boat to be used for support of the dredging operation. The boat will also be used to support the increased activity of our summer oyster, water testing and intern programs.

Science & Education...



Dr. Burt Fleming, VP Science and Education

The Foundation has a long history of study of Pond conditions, which in turn has been the basis of various programs of remediation. Nitrogen, having been identified as the limiting nutrient for algal growth and resulting degradation of conditions for good Pond health, continues to be the principal target for removal from the Pond.



Nitrogen Reduction Program

The campaign for nitrogen reduction is threefold:

1). Direct removal by increasing effectiveness of Pond openings. The acquisition of a highly mobile dredge and the scope of dredging are covered in the “Dredge Report” section of this publication.

In brief, the results of this winter’s dredging speak volumes for the effectiveness of the dredge: we recently enjoyed the longest Pond opening since the Town’s dredging operation in 2002.

2). Oyster Restoration. The Foundation has provided support for this program, now in its 4th year, by funding summer interns to work under the direction of the Martha’s Vineyard Shellfish Group. The interns are either college or high school students with an active interest in ecological issues, and all have done outstanding work. The population of healthy Pond oysters had been hard hit with an infestation of “dermo” (a parasite fatal to oysters but harmless to humans) and diminished oxygen levels due to algae.

This program has introduced literally millions of the new dermo-resistant immature oysters into the Pond. Given the potential for each three year old oyster to filter nitrogen from up to fifteen gallons of water daily, the positive impact of this program on Pond health is nothing less than compelling.



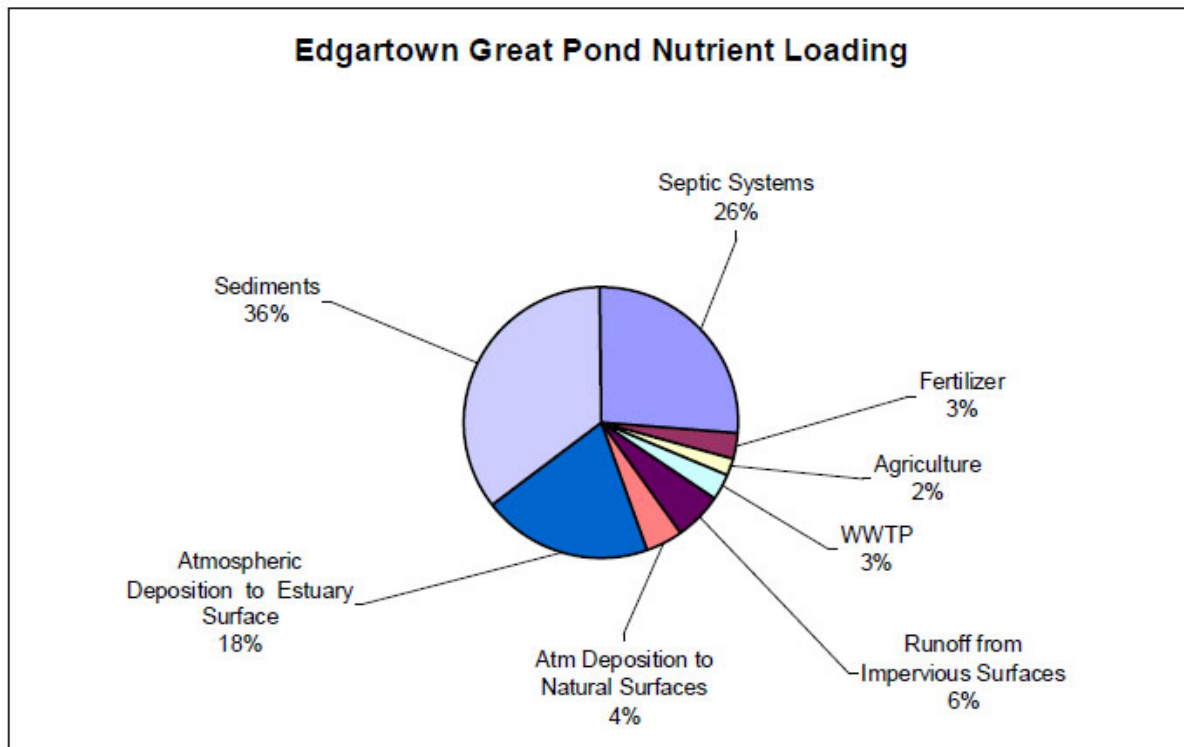


Figure ES-A: Percent contributions of Nitrogen Sources to Edgartown Great Pond

3). Public Education and Advocacy. The Foundation continues to inform the public on Pond conditions and programs, with heavy emphasis on addressing causative factors. Accordingly, the Foundation has supported such measures as installing sewer systems within the watershed to reduce the introduction of nitrogen into the Pond through groundwater.

The Great Pond Foundation has worked to inform the general public that, while lush green lawns are undeniably beautiful, they usually require heavy fertilization, which is often a significant contributor to nitrogen in the groundwater. The Foundation is an active participant in Vineyard Water Alliance and promotes their recommendations for reduction in lawn size and the use of slow-release fertilizers aimed at reducing this toxic nitrogen source.



Pond Circulation Study:

The Foundation, with help from the Permanent Endowment for Martha's Vineyard, has entered into a contract with the University Massachusetts School for Marine Science and Technology to conduct a comprehensive study of circulation within the Pond, to be done in concert with the August opening. Bottom-mounted instruments will measure temperature, depth, salinity, dissolved oxygen and chlorophyll (an algal indicator) in twelve key locations. Chosen locations are vital to tracking the progress of stratification and changes of oxygen levels in the Pond. Data collection will be augmented by an "autonomous underwater vehicle" (AUV). The data will provide crucial information on the cause and effect relationship between circulation patterns and the parameters set forth in the existing regulatory and permitting process under which dredging projects must operate. This methodology is a vast improvement over previously considered methods employing fluorescent dyes and/or floating drogues.



Water Quality Testing Program:

For more than a decade the Foundation, in cooperation with the Town of Edgartown, has supported the Martha's Vineyard Commission in conducting extensive water testing, both in the Pond itself and in the plume from the old water treatment facility within the watershed. Nitrogen, dissolved oxygen, and salinity are key indicators of Pond health. Tracking these indices helps to determine what remedial efforts are most effective. Support for this program will be augmented by contributions from the Vineyard Golf Club as part of its commitment to the environmental health of the watershed. As a result of its long record of Pond study, Edgartown Great Pond is the first of the Island ponds to be studied by the Massachusetts Estuary Project. Recommendations flowing from the project will have a major impact on Pond health in ensuing years.

Michael Wilde Award:

Named in memory of one the Pond's greatest advocates and also one of the original GPF directors, the Foundation fosters awareness at the high school level with an annual Science Fair award for the project that best demonstrates good management of Edgartown Great Pond. Proposals for student-designed projects are being sought for next summer.

Phragmites Control Program:

This invasive plant species poses a threat to native plants and established pond ecology. GPF continues to work in cooperation with Nature Conservancy and Sheriff's Meadow Foundation to reduce, control, and possibly eradicate this invasion. Several riparian owners with stands of Phragmites are presently involved in this effort.

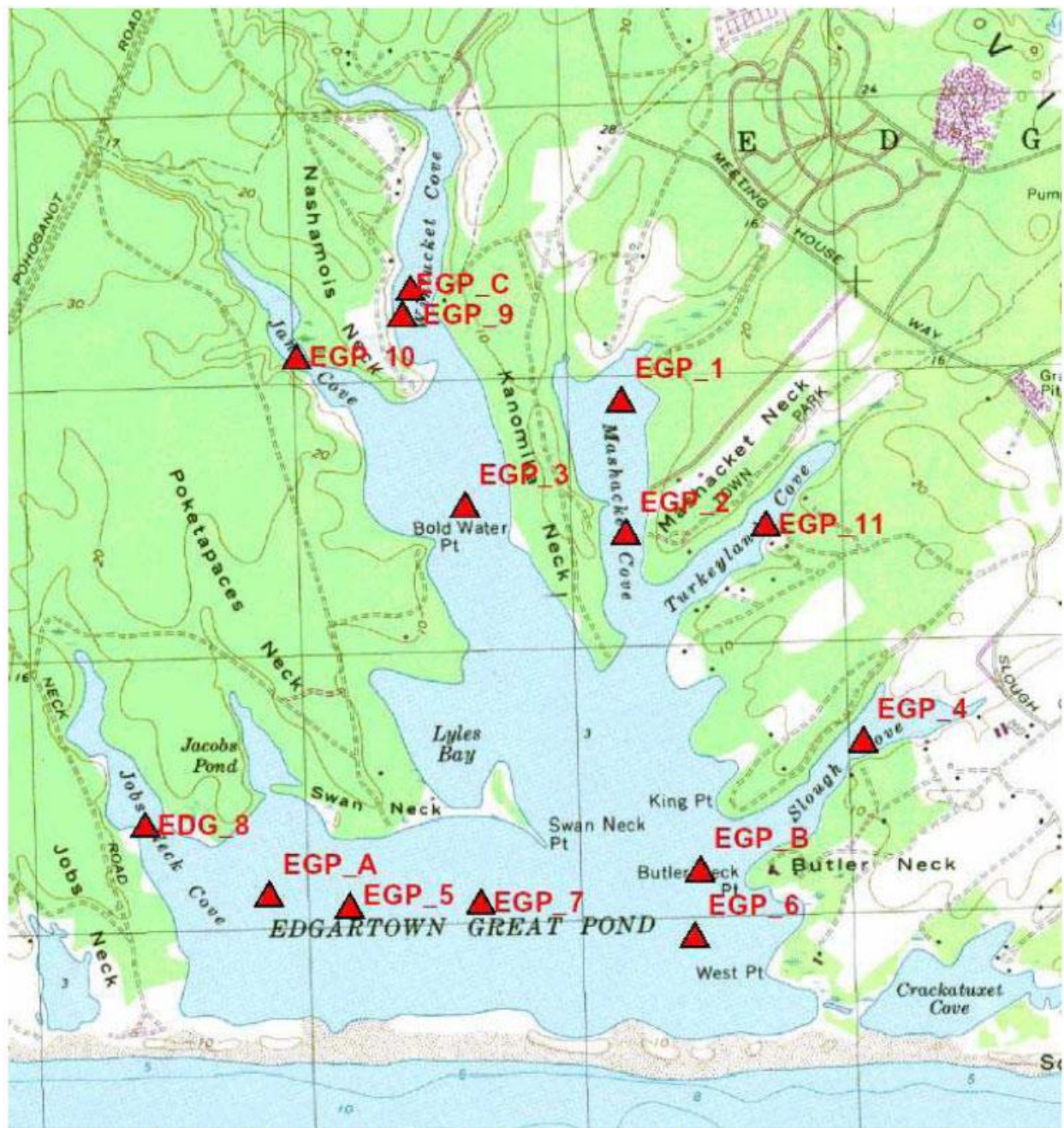


Figure 5: Edgartown Great Pond Long Term Monitoring Stations.

EGP1, 2, 3, 5, 6 and 9 are identified as the locations for calculating time-averaged pond-wide N concentrations rather than using one or two sentinel stations.



We would like to hear from you!

Having established ourselves as a small and vibrant organization, we would like to reach out to all our neighbors in the Great Pond's watershed. We'd like to hear from you on anything to do with the pond that you believe might be important, or if you have questions about any of our projects. Your tax-deductible donations would be greatly appreciated as well!

Where to find us

On the web: www.greatpondfoundation.org

By postal mail:

**Post Office Box 2005
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By email: [**postmaster@greatpondfoundation.org**](mailto:postmaster@greatpondfoundation.org)

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IN PARTNERSHIP WITH THE TOWN AND
OTHER CONCERNED ORGANIZATIONS

GREAT
POND
foundation

