

Shore Lines

Newsletter of the Association to Preserve Cape Cod

Spring 2012

Volunteers for APCC's salt marsh program have the Cape covered.



State Game Farm, Sandwich



Parker's River, Yarmouth



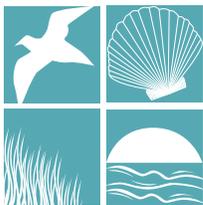
Dyer Price, Eastham



A closer look at APCC's salt marsh monitoring program

Since 2003, APCC has coordinated a volunteer-based program that monitors the health of Cape Cod salt marshes in order to document the need to restore tidally restricted marshes and measure the success of marsh restoration efforts. In the process, APCC has collected a wealth of valuable data for natural resource professionals, while instilling a greater sense of environmental stewardship across the Cape. Salt marshes are a critical element of the coastal ecosystem, filtering pollutants, serving as storm buffers, and providing food and shelter for fish and shellfish.

The following is a quick glimpse at the program from the perspective of number of salt marshes in the program, marsh locations, number of acres monitored and acres restored. The information reflects the achievements made so far in the restoration program, but also shows that there is a great amount of work still to be done on Cape Cod. APCC relies on the continued support of our members to make this important work possible. *See page 3 for more information about APCC's salt marsh program.*



APCC
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Preserve Cape Cod

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Monitoring Sites Restored

Salt Marsh Location	Restored
1 Bass Creek, Yarmouth	37 Acres (2008)
2 Bridge Creek, Barnstable	40 Acres (2005)
3 Cranberry Lane, Chatham*	5 Acres (2011)
4 Namskaket Creek, Brewster	10 Acres (2007)
5 Quivett Creek, Dennis	11 Acres (2005)
6 Red River Beach, Harwich	15 Acres (2012)
7 Sesuit Creek, Dennis	65 Acres (2008)
8 State Game Farm, Sandwich	9 Acres (2006)
9 Stony Brook, Brewster	32 Acres (2010)
10 Sunken Meadow, Eastham	12 Acres (2011)
11 Wings Neck, Bourne	12 Acres (2002)
12 Rushy Marsh Pond, Cotuit	9 Acres (2012)
Total Restored	257 Acres

Monitoring Sites to be Restored

Salt Marsh Location	To be Restored
13 Dyer Prince, Eastham	12 Acres
14 Eagle Neck Creek, Truro*	16 Acres
15 Freeman's Pond, Brewster	8 Acres
16 Herring River, Wellfleet	1,100 Acres
17 Mayo Creek, Wellfleet	20 Acres
18 Parker's River, Yarmouth	35 Acres
Total to be Restored	1,191 Acres

*Monitoring sites added in 2012

The role of government in protecting the environment

By Ed DeWitt, APCC Executive Director

There has been a lot of national debate recently about whether the government can solve problems. This debate has particular interest here on Cape Cod where we are facing some huge challenges to stop the flow of nutrients into our embayments and clean them up. Our water is our economy and our way of life. We not only drink the water, but we catch our food, swim and also simply step back and admire it. We gladly pay a premium to live on Cape Cod to enjoy or be near the water. Sadly our water is decline. We have not been good stewards. Some of our neighbors claim that there isn't a water problem, or the problem is overstated. The facts leave no doubt that those critics are wrong. Eel grass, the Cape's canary in the coal mine, is in steep decline. We are exceeding the total maximum daily load of reactive nitrogen everywhere that scientists have measured for pollution.

As a child of the 1960s, my view of government was influenced by inspirational words about government service and growing up in a community robust with 1930s era, useful and attractive government projects. As a Coast Guard officer stationed in Cleveland in the 1970s, I witnessed first-hand the positive and immediate impact the Clean Water and Clean Air Acts had on that city. My wife Kathy cried the first time she drove into town and saw the filth spewing from the steel mills along the oil slicked Cuyahoga River. She cried for very different reasons when I was transferred a couple of years later from a much improved city where the riverfront was starting to be developed into a tourist destination.

To solve our problems, some cynics want to turn to the free market. But free market forces have a less than stellar track record when interacting with the environment. Unfortunately, history is full of examples of the practice of polluting now and dealing with the impacts only if it becomes a problem later. This principle is based on the notion of why pay for something now if you might never have to pay for it at all. Things are cheaper this way. The only brake on this principle has been effective and fair environmental laws and regulations.

In the 1980s, long before I arrived, APCC was advocating for effective wastewater planning and incorporating wastewater treatment into subdivision and development design. The free market prevailed and development was driven with a philosophy of why pay now if I can get someone else to pay for it later. "Later" has now arrived and we are turning to government to solve the problem. There really is no other option. We all have a stake in both process and outcome of treating wastewater. Government works well when there are carefully articulated and measurable outcomes, the public benefit is clear, the books are open and transparent, there is citizen engagement, and the actual beneficiary is the public and not a private interest.

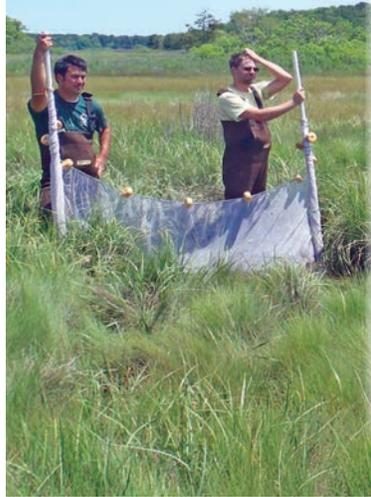
We all need to be engaged in the process and ask questions. We may not like the answers, but it is critical that the facts be as accurate as possible. We want our grandchildren to be proud of the work the government did on our behalf. Please get engaged and get the facts.

"Our water is our economy and our way of life."

Two marsh sites added; volunteer monitors needed!

Two new salt marsh sites have been added this year to APCC's salt marsh monitoring program. Cranberry Lane salt marsh in Chatham is the location of a culvert that was replaced in 2011 to improve tidal restriction to 4.8 acres of marsh. APCC will monitor for changes to the marsh as a result of the restoration. In Truro, APCC will begin monitoring the Eagle Neck Creek salt marsh to collect data in advance of future restoration.

Volunteers are needed to assist with monitoring water salinity and vegetation at these two new sites, as well as for other salt marsh sites in APCC's monitoring program. Salinity monitoring training workshops will take place at the end of May (dates to be announced), and a plant monitoring workshop will be held on July 25th. Those interested in becoming a volunteer monitor are encouraged to contact APCC staff biologist Tara Nye at 508-362-4226 or tnye@apcc.org.



U.S. Farm Bill viewed as possible source for federal watershed restoration funds

APCC is working with the National Watershed Coalition and others on efforts that would restore federal funding for the Cape Cod Water Resources Restoration Project (CCWRRP) and other similar watershed restoration projects across the country. The funding source for these important environmental projects disappeared last year when Congress completely defunded the Natural Resources Conservation Service's (NRCS) Watershed Program.

The CCWRRP is a comprehensive 10-year project that would restore thousands of acres of priority salt marsh, fish run and shellfish habitat across Cape Cod. Only \$6.5 million were appropriated for the \$30 million project before funding was cut.

Now, efforts are underway to fund the national Watershed Program through the next Farm Bill, which operates under a five-year cycle. As an initiative funded through an agency of the U.S. Department of Agriculture, the NRCS Watershed Program would be a natural fit with many other programs in the Farm Bill.

Efforts are currently focused on winning support for the program in House and Senate agriculture committees, which have oversight of the Farm Bill. APCC and our coalition partners have encouraged Congressman William Keating, Senators John Kerry and Scott Brown, and other Massachusetts members of Congress to reach out to the committees. Please go to www.apcc.org or contact APCC at info@apcc.org or 508-362-4226 to learn how APCC members can also help.

With the future at stake for the Cape restoration project, as well as a similar Massachusetts North Shore watershed restoration project and several dam restoration projects in central and western Massachusetts, there is more incentive than ever to work with both regional and national partners on this common cause.

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APCC studies environmental impacts of two development projects

A critical component of APCC's mission is to act as Cape Cod's environmental watchdog, scrutinizing proposed development projects against the potential for environmental impacts. APCC has most recently weighed in on two proposed development projects: the expansion of the Provincetown Municipal Airport and development of a large assisted living facility in Brewster. Both are examples of projects possessing community benefits, but which must still address important environmental challenges.

Provincetown Municipal Airport: APCC submitted written comments to the Massachusetts secretary of Energy and Environmental Affairs for the state's review of the Provincetown airport expansion proposal. In those comments, APCC expressed concern over the significant impact the project would have on wetlands, coastal dunes and rare species habitat in this environmentally sensitive location. APCC urged state agencies and the Cape Cod Commission to work with the project applicant to further reduce and avoid project impacts to natural resources.

MP Renaissance: In testimony and written comments to the Cape Cod Commission on a proposed assisted living and memory care facility in Brewster, APCC pointed to the large size and medical nature of the project as a potential concentrated source of pharmaceuticals in wastewater. Such pharmaceuticals could pose human health and environmental threats for neighboring private wells and a nearby freshwater pond. Pharmaceuticals and other wastewater-borne contaminants is an issue of growing concern, particularly in regions such as Cape Cod where groundwater is the source for drinking water. As a precaution against possible impacts to the drinking water supplies or the pond, APCC called on the Cape Cod Commission to require this project in utilize the highest standard of wastewater treatment and to install test wells to monitor for the presence of likely pharmaceuticals.

As of the publication of *Shore Lines*, both projects were still undergoing regulatory review. APCC's comments on both projects can be viewed by going to the "What's New" section of the home page at www.apcc.org.

Legislative environmental initiatives

Throughout 2012, APCC will continue to support the adoption of effective environmental legislation to benefit the Cape's natural resources and quality of life. Among the pending state bills that remain high on APCC's priority list are:

- ☞ Comprehensive Land Use Reform and Partnership Act (S.1019)
- ☞ An Act Updating the Bottle Bill (S.1650/H.890)
- ☞ An Act to Sustain Community Preservation (S.1841/H.765)

As *Shore Lines* goes to press, the status of these bills is likely to change as committees decide to report bills out with recommendations or to place them in study. Watch for APCC email alerts on taking action on specific bills as information becomes available.

South Cape Cod and Islands nominated as federal No Discharge Area

A big step was taken in February to protect our coastal waters; namely, the nomination of the state waters of Nantucket and Vineyard Sounds and the Islands as a No Discharge Area (NDA) for treated and untreated boat sewage. This landmark action will close the largest remaining gap in coastal No Discharge Areas in New England. The NDA will protect water quality for an estimated 12,500 acres of shellfish beds, hundreds of acres of shellfish aquaculture operations, at least 143 public swimming beaches, as well as eelgrass beds and other important wildlife habitat.

The NDA nomination was submitted to the U.S. EPA by the Massachusetts Office of Coastal Zone Management, and supported by APCC and the towns of Falmouth, Mashpee, Barnstable, Yarmouth, Dennis, Harwich, Chatham, Chilmark, West Tisbury, Tisbury, Oak Bluffs, Edgartown, Gosnold and Nantucket.

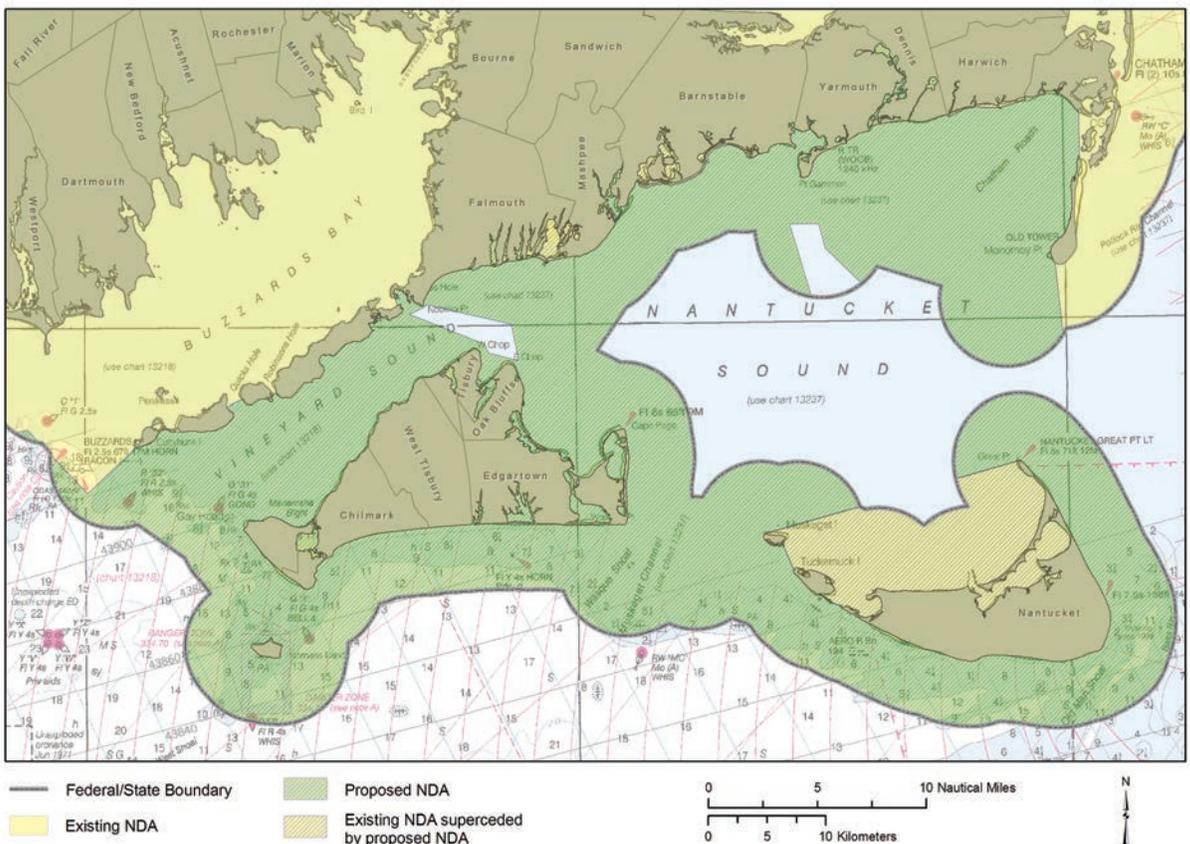
The federal Clean Water Act prohibits the discharge of raw untreated sewage into any body of water. A No Discharge Area goes further by prohibiting the discharge of any boat sewage, even if treated, in a NDA zone. Even treated boat sewage contains high concentrations of nutrients, harmful bacteria and viruses, and toxic chemicals used to treat sewage. These pollutants can harm fish, shellfish and eelgrass beds, make shellfish unsafe for human consumption and render beaches unsafe for swimming.

For the nomination, APCC helped CZM collect information on

Continued on page 6

The latest NDA nomination would prohibit discharge of treated and untreated boat sewage in state waters of Nantucket and Vineyard Sounds and the Islands.

Proposed Nantucket Sound and Islands No Discharge Area (NDA)



numbers of boats within this area. CZM's final tally was 15,000 recreational vessels, over 500 commercial vessels using 26 major harbor areas, and at least 29 boat sewage pumpout facilities. One challenge was managing the volume of vessel sewage from commercial ferries that run between the Cape and Islands. To allow their treatment systems to catch up to the new designation, two narrow open corridors in the ocean will be temporarily maintained until early 2016, and then closed.

If the nomination is approved by EPA, the new NDA will be designated in early summer.

The Cape has always been a leader in NDA designation in New England, with early designations for Wellfleet Harbor, Stage Harbor, Waquoit Bay and Centerville-Three Bays. In 2008, APCC spearheaded the nomination of the Cape Cod Bay NDA and supported recent NDA nominations for waters of the Outer Cape, Pleasant Bay and Chatham.

Stony Brook restoration team wins Coastal America Partnership Award

APCC is pleased to announce that the Stony Brook project team received a Coastal America Partnership Award for the Stony Brook Salt Marsh and Fish Passage Restoration Project in Brewster. This is the only award of its kind presented by President Obama's administration for on-the-ground environmental restoration partnerships. Nationwide, only six teams received the award this year.

The Stony Brook project team has guided the restoration project since 2005. APCC assists with project management and monitoring the salt marsh, herring run, rare species, and invasive species. The project team includes Chris Miller (Brewster Natural Resources Department), Steve Block and Kristen Ferry (National Oceanic and Atmospheric Administration's Restoration Center), Jeremy Bell (Massachusetts Division of Ecological Restoration), and Dr. Jo Ann Muramoto (APCC and the Massachusetts Bays Program).

Partners include the Cape Cod Museum of Natural History, Brewster Alewife Committee and Herring Warden, Massachusetts Division of Marine Fisheries, APCC's Volunteer Herring Monitors and Salt Marsh Monitors, Brewster Conservation Trust, Brewster Chamber of Commerce, Brewster residents, Compact of Cape Cod Conservation Trusts, USDA Natural Resources Conservation Service, Cape Cod Conservation District, Barnstable County Coastal Resources

Committee, Massachusetts Department of Transportation, EPA, Barnstable County, U.S. Fish & Wildlife Service, state and federal legislators, Eddy Foundation of Brewster, The Dolphin Trust, Prospect Hill Foundation and many others.

This complex restoration project will restore 41 acres of salt marsh, improve fish passage to five ponds that provide 386 acres of habitat for river herring and American eel, and provide jobs for the local economy. The three parts of the project include replacement of an undersized tidal culvert to restore 20 acres of salt marsh and improve herring access (completed 2010), restoration of 21 acres of salt marsh at Freeman's Pond (by December 2012) and replacement of a failing dam at Lower Mill Pond to improve herring passage and maintain water level in five connected ponds (by December 2012).

The Coastal America Partnership award ceremony will be scheduled for later this year.



Aerial view of the Stony Brook watershed in Brewster with south at top of photo.

Regional wastewater management strategy advances

As part of ongoing efforts to address Cape Cod's wastewater problem, APCC is participating in a public outreach initiative to answer common misconceptions about wastewater management and to create greater awareness of the need to solve the issue through a regional approach.

The above efforts are relevant to a decision made in late February by the Barnstable County Commissioners, who voted unanimously to direct the executive directors of the Cape Cod Commission and the Cape Cod Water Protection Collaborative to develop a framework for a new county-wide authority to oversee solutions for the Cape's wastewater problem.

The goal of a county-wide wastewater entity would be to establish a regional strategy for addressing wastewater that takes into consideration all viable options. Such a strategy is driven by the need to look at watershed-based solutions rather than relying on a more costly and less effective town-by-town approach. The process to establish a regional authority would involve a comprehensive public process, and would require state legislation enabling the creation of the wastewater authority.

The County Commissioners' directive came at the recommendation of the Special Commission to Review County Governance, which for the past several months has studied the means to make county government more efficient and effective in addressing the challenges that confront Cape Cod.

Cape Cod fish runs aren't just for herring

This spring, as Cape Codders once again marvel at the annual return of river herring, another more elusive migrant is also finding its way to our local fish runs. Young American eel (*Anguilla rostrata*) are beginning to enter the Cape's estuaries after hitching a ride up the Gulf Stream from their spawning grounds in the Sargasso Sea.

These diminutive two-inch eels, called "elvers," come to the Cape and elsewhere along the Atlantic coastline to mature and live most of their adult lives, making them catadromous (spawning in the ocean but living in fresh water). This differentiates them from the anadromous river herring, which spawn in fresh water but live in the ocean. Male eels tend to settle in brackish streams while the females head into the depths of fresh water ponds.

Eels may live up to 20 years in our inland ponds and streams, but when they reach sexual maturity, the adults head back to the Sargasso Sea to spawn and die, thus completing their unique journey. Eels are important both as a predator and a food source for other species, including humans, but their numbers are declining. On Cape Cod and elsewhere, dams and other obstructions have made the eel's migration difficult, but fish run restoration projects and even construction of special eel ladders are beginning to make life easier for the American eel.



Send us your email address at info@apcc.org to make sure you receive the summer Shore Lines newsletter, which will be completely electronic!



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The Association to Preserve Cape Cod is a 501(c)(3) non-profit organization founded in 1968 to foster policies and programs that promote the preservation of natural resources on Cape Cod.

Support comes from 5,000 memberships, and from gifts and grants from individuals, foundations and businesses.

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