This year, Peconic Estuary Program is embarking on a revision of the Comprehensive Conservation and Management Plan (CCMP) – the founding document which guides all program activities. Much has changed since the original CCMP was approved in 2001. That document initiated the Peconic Estuary Program and was intended to thoroughly characterize the system and the pollution threats it faced, in addition to proposing a plan to protect it. It included an ambitious 340 management actions. There have been significant accomplishments, but new issues have emerged, science has advanced, and many problems remain unsolved.

This major CCMP revision will not only guide the Program’s activities, but will articulate the regional consensus about the most important environmental challenges facing the Peconic Estuary today and the priority actions needed to address those challenges over the next 10 years. This will help local governments to prioritize their environmental protection activities, and serve as a blueprint for water quality protection efforts supported by the Community Preservation Fund. The update of the Peconic Estuary CCMP will be accomplished through a process that brings together all levels of governments and all sectors of the community surrounding the Peconic Estuary. Continued on page 2
PEP Citizen’s Advisory Committee Meeting

The Peconic Estuary Program (PEP) would like to invite you to participate in the Citizens Advisory Committee (CAC). The CAC holds quarterly meetings where members meet and discuss a wide variety of topics concerning the Peconic Estuary with the common goal of promoting clean water and healthy bays!

Next Meeting:
Saturday February 27, 2016
10am-12pm
Peconic Community Center
Peconic Lane, Peconic NY 11958
cac@peconicestuary.org

PEP Creates the Peconic Estuary Protection Committee

The Peconic Estuary Protection Committee, formed in 2015, is an inter-municipal affiliation dedicated to restoring and improving water quality in the Peconic Estuary and implementing the goals of the federally-recognized Peconic Estuary Program’s Comprehensive Conservation and Management Plan. Our members are the Village of Greenport, the Village of North Haven, the Village of Sag harbor, the Town of Brookhaven, the Town of East Hampton, the Town of Riverhead, the Town of Southampton, the Town of Southold, Suffolk County and the New York State Department of Transportation.

PEP initiated the development of the inter-municipal agreement having recognized the success of similar coalitions on Long Island and elsewhere. PEP funded the development of a draft agreement, completion of the first annual work plan and the initial outreach and coordination activities. The coalition operates by committee, with representatives from each participating municipality. Municipal dues fund a coordinator who facilitates information and resource sharing, communication among member municipalities, joint initiative, and work plan implementation.

The Committee aims to protect, restore and enhance the Peconic Estuary to ensure a healthy and diverse marine ecosystem while balancing and maintaining recreational and commercial uses. As a unified group continued on page 4

Plan for the Bays continued from page 1

Some of the strategic priorities for the revised CCMP will include but not be limited to:

Nitrogen Loading: While progress has been made in addressing point sources, land preservation, and air deposition, it is clear that additional focus is needed to accelerate implementation of non-point source nitrogen reductions, including those from septic systems and cesspools and residential and agricultural fertilizer.

Climate Change Adaptation: Not addressed in the original CCMP, climate change is profoundly impacting the Peconic Estuary, and our ability to manage it, through sea level rise, increasing water temperatures, changes in precipitation patterns, and ocean acidification.

Harmful Algal Blooms: The original CCMP, and the creation of the PEP itself, was triggered by devastating brown tides in the mid-1980s and early 1990s. Today, the Peconic Estuary does not have vast blooms of brown tide, but does experience a whole host of other harmful algal blooms (HABs) that must be addressed.

Habitat Restoration: There needs to be a renewed emphasis on restoration and preservation submerged aquatic vegetation, tidal wetlands and diadromous fish habitat connectivity, by adaptively managing and addressing root causes of their decline.

Water quality is a common responsibility of all community members of the Peconic Estuary watershed.
Symbols of the PEP Logo

The Peconic Estuary Program’s logo is comprised two of the most resilient animals in the Peconic Estuary; the bay scallop and the osprey. Both of these creatures faced critical population declines within the Estuary in past decades.

With the help of restoration projects and public education, both the bay scallop and the osprey are rebounding with increased habitat conservation and water quality improvements. These two are examples of what we can accomplish and symbols of a return to a healthy estuary.

Ospreys – Feathered Icon on the Peconic Bay
Creature Spotlight by John Turner

As St. Patrick’s Day approaches many people turn their thoughts to a dinner of corned beef and cabbage, soda bread, and maybe a glass or two of green beer. My thoughts are different - I think of Ospreys because, like clockwork, these remarkable birds return to their Long Island breeding haunts a day or two before, to a day or two after, St. Patty’s Day. As a pair circles ceaselessly and effortlessly from on high, their distinctive piping calls fall to earthbound human ears, telling us a mated pair of fish hawks are renewing their nuptial bonds after a winter apart. Here, in the communities ringing the Peconic Bays, it is as telltale a sign that Winter is melding into Spring as the sight of a tractor plowing fields or the emergence of garden edge daffodils.

Ospreys have long been part of the ecological fabric of eastern Long Island. Several hundred years ago the population here was among the densest in the world. In fact, as recently, as the mid-19th century as many as 2000 breeding pairs were found in the Peconic system. This is a not-so-surprising fact since the bird’s requirements were so easily met - abundant bays and harbors, shallow in nature and teeming with a variety of fish, with shorelines pocked by large boulders and fringed by trees providing ample sites for nesting. Today, there numbers are reduced from historic levels but have rebounded nicely from their nadir during the decades of the 50’s through the 80’s due to the egg shell thinning effects caused by the persistent use of the pesticide DDT, long since banned. Continued on page 7

The Peconic population of the Osprey faced a serious population decline throughout the history during the latter half of the 20th century. Photo J. Woodhouse
The Peconic Estuary Program (PEP) is providing a unique opportunity if you live within the Peconic Estuary watershed area. The PEP will provide financial rewards for homeowners who remove turf and pavement, and add native vegetation areas and/or rain barrels to their properties.

Homeowners can earn up to $500 to offset the expense of installing green infrastructure on their properties including rain barrels, rain gardens, and native vegetation gardens. Water filtered through sand and gravel within these gardens is dramatically cleaner when it enters our aquifers and storm drains. Rain barrels offer an opportunity to catch rainwater for reuse in gardens rather than running down paved surfaces and into storm drains.

Learn more about your local estuary and all its amazing bays, while improving your property and reducing pollution from entering local waters. Funds are limited and will be granted on a first come first served basis, so don’t miss out!

Visit PeconicEstuary.org for guidelines and more details rewards@peconicestuary.org

Riverhead Raingarden to be Planted for Earth Day!

Town of Riverhead and PEP: Partnership to improve water quality.

The Peconic Estuary Program (PEP) is pleased to announce a partnership with the Town of Riverhead to improve water quality within the Peconic River. Together, these two groups, along with the help of many volunteers, will be creating a rain garden near the Peconic Riverfront Park in downtown Riverhead. This rain garden will collect stormwater runoff from the adjacent parking lots and buildings. This garden will absorb and filter rainwater, polluted stormwater runoff, and excess nutrients and before it enters the Peconic River. With new educational signs, residents will be able to learn about stormwater pollution and using green infrastructure methods, like a rain garden, on their own properties.

Rain gardens filter stormwater through vegetation, sand, and gravel providing dramatically cleaner water when it enters other bodies of water. Reducing stormwater runoff can help improve water quality, reduce nutrient pollution, and help restore our natural resources. The Riverhead rain garden will use native plants which are best adapted for our climate requiring little maintenance (watering) and reduced demand for fertilizer and pesticides.

Native plants can also provide habitat for wildlife like birds, butterflies and bees. Using native plants with berries or flowers such as red chokeberry, goldenrod or butterfly weed will attract the wildlife and add beauty to the downtown parking area. This garden will replace non-native lawn grasses and compacted soil, and help reduce erosion.

We would like to thank the Riverhead Town Board for their support, and the Riverhead Department of Engineering for their expertise and construction equipment. Look for the new rain garden near the Peconic Riverfront Park in early Spring 2016. And mark your calendars to celebrate Earth Day, get your hands dirty and help plant this new garden on Saturday April 23rd 10:00am. rewards@peconicestuary.org

Peconic Estuary Protection Committee continued from page 2

of stakeholder, the Committee believes that the future health and productivity of the Peconic Estuary require a coordinated effort. Members also recognize that inter-municipal cooperation is an effective and resource-efficient means to comply with EPA’s Clean Water Act and New York State’s Phase II stormwater regulations for small municipal stormwater sewer systems (MS4s). The Committee work plan outlines collaborative efforts toward improved water quality including sharing information and technical resources, coordinating regulatory and enforcement activities, jointly conducting outreach and education initiatives, and cooperating on planning and infrastructure programs.

For more information, please contact Rachel Gruzen, PEPC Coordinator at PeconicEstuary@gmail.com (917) 796-2128
Community Stormwater Stewardship Program
Set to Start this Spring

The best way to know how effectively PEP initiatives are taking hold in the Peconic Estuary watershed is to monitor water quality parameters. Unfortunately not every creek and wetland can be regularly tested. Acquiring information about the parts of our bay closest to the shoreline can help PEP and its partners create the most effective management plan and mitigation projects for our estuary. Members of the Peconic community are eager to help and this pilot citizen science based program will allow for just that!

Volunteers will help collect environmental parameters including temperature, pH, dissolved oxygen, nutrients, and water clarity—all important indicators of health of our local bays. At the start, this program will focus on the waters surrounding the Suffolk County Marine and Environmental Learning Center in Southold, NY and will aid aquaculturists in the healthy brooding of shellfish larvae for our surrounding waters. As membership grows, we hope the volunteer monitoring program will expand across the bay and become an estuary-wide resource in protecting and restoring the health of the Peconic Bays.

Please join us at our first training workshop of the season: Saturday March 12, 2016 from 10am-12pm at SCMELC 3960 Cedar Beach Road in Southold, NY. Pre-registration is requested, email peptalk@peconicestuary.org

Citizen Science links people with science to understand and protect ecosystems.

More About Stormwater Pollution...

Stormwater runoff is water from rain or melting snow that does not soak into the ground. It flows from roofs, paved roads, bare soil, and sloped lawns. As it flows it can collect pollutants such as fertilizers, pesticides, oils and grease, animal wastes and sediments, discharging them into storm drains. This polluted stormwater ends up in the Peconic Bay, and other local water bodies such as Long Island Sound and Great South Bay. These pollutants restrict recreational use and degrade habitat for aquatic life resulting in bathing beach closures and shellfish harvesting restrictions. Top 10 things residents can do to help with stormwater pollution:

**Automotive Care**- Inspect and maintain your car regularly to prevent oil, antifreeze and other fluid leaks.

**Washing the car**- Use a commercial car wash that treats and recycles water to prevent harmful chemicals from flowing to storm drains.

**Hazardous chemicals**- Use the least toxic products around your home and dispose of them at approved collection centers.

**Yard Waste**- Leave grass clippings on the lawn and start a leaf/food compost pile to recycle nutrients and minimize the need for fertilizers.

**Driveway care**- Sweep driveways and sidewalks and dispose of debris properly to prevent it from entering storm drains.

**Lawn care**- To minimize over application, use pesticides and fertilizers sparingly, if at all. Follow directions and never apply before it rains.

**Septic Maintenance**- To prevent malfunctions, have your septic tank pumped regularly and never dump chemicals down household drains.

**Pet care**- To make sure harmful bacteria does not enter waterways, collect pet waste and dispose of it on the toilet or trash.

**Recycling and Trash Disposal**- Always recycle. Do not dump trash onto the street; it will be carried into storm drains and local waterways.

**Spread the word**- Educate your family, friends and neighbors. We are all the solution to stormwater pollution.
Why You Should Care About the Peconic Bay

Most of us know the Peconic Bays and Peconic River as a tranquil place on Long Island’s East End where we fish, harvest shellfish, boat and swim and where we all have our favorite spot to sit and relax. But why are the Peconic Bays and River such an important place and why should we care about the health of these waters?

The Peconic Estuary provides feeding and important breeding and nursery habitat, such as wetland habitat and eelgrass habitat, for fish, waterfowl, wading birds, shorebirds and invertebrates. Reeves Bay, Flanders Bay, Great Peconic Bay, Little Peconic Bay, Noyack Bay, Southold Bay, Gardiners Bay, Napeague Bay and Peconic River are part of the Peconic Estuary. An estuary is a semi-enclosed body of water where salt water from the ocean and freshwater from the land and rivers mix and these ecosystems are the most productive ecosystems in the world. The Peconic Estuary watershed is home to around 111 rare species. Some of the habitats are found nowhere else in New York State and are rarely found elsewhere in the United States. Many economically important species, like the bay scallop, weakfish, winter flounder, and forage fish, which provide many fish species the food to survive, spend all or part of their life in the estuary. Other species such as the Piping Plover and Osprey depend on the estuary for habitat and food.

The amount of land that contributes freshwater to the estuary is almost as much as the size of the estuary itself. It is important to think about what effect your actions on land are having on the Peconic Estuary. The range of the Peconic Estuary and the land and surface water that contributes water to the estuary, the watershed, extends from the headwaters of the Peconic River, at Brookhaven National Lab, and east out from the bays to the Block Island Sound between Plum Island and Montauk Point. More than 125,000 acres of land are within the Peconic Estuary watershed and close to the same amount, 158,000 acres, of surface water are in the Peconic Estuary watershed.

The health of the estuary is important to the success of the East End economy. Peconic shellfish and fishing industries, recreation industries and tourism are inseparable from the habitat, living resources and water quality in the Peconic Estuary. If you are a fisherman or enjoy the bounties and beauty of the estuary, you know that poor water quality, especially in the western sections of the estuary in Reeves and Flanders Bay, has led to fish kills and harmful algal blooms (HABs).
Many can remember the brown tide bloom starting in 1985 and plaguing the Peconic Bays intermittently through the early 1990’s.

Poor water quality is the product of many factors, namely nitrogen. Nitrogen in groundwater from septic systems and fertilizers play a role in triggering and sustaining algae blooms and poor water quality in the Peconic Estuary. The negative impacts of algal blooms are broad; some algal blooms are harmful and negatively impact the ecosystem by producing toxins that cause severe illness or death in humans, domestic animals, wildlife, or aquatic organisms. Others are not directly harmful, but their presence causes aesthetic impacts and reduced recreational values resulting from discolored water, foul odors and changes in water quality such as hypoxia (low oxygen conditions). Algae produce oxygen through photosynthesis during daylight hours; but respire, using oxygen. Oxygen is used up during bacterial breakdown of organic matter, including algae that have died and sink to the bottom.

Furthermore, algae blooms and high amounts of particles in the water discolor water and decrease water clarity, diminishing the amount of light reaching submerged aquatic vegetation (SAV) and in effect reducing the extent of SAV. SAV, such as eelgrass, provide habitats needed to support shellfish and fish populations. Excess nitrogen may also cause the growth of epiphytes on eelgrass blades, thus reducing the amount of sunlight available and hindering production. Loss of SAV also reduces the estuary’s natural buffering capacity for storm energy. These HABs have been found to be a contributor to the near collapse of bay scallop populations and declines in other shellfish populations and habitat. The impacts of climate change are likely to directly influence the occurrences, types, and duration of HABs. Changes in surface water temperatures, freshwater inputs resulting from precipitation, the stratification and circulation of nutrients and the alteration of photosynthesis rates due to changes in the extent of cloud cover are all likely to affect the abundance and distribution of algae.

Ospreys—Continued from page 3

Unique among birds of prey in their dependence upon fish (bald eagle come close but also prey on waterfowl and other waterbirds), ospreys display a number of key adaptations allowing them to effectively catch their slippery prey. Foremost are the sharp talons that clamp shut upon contact with a fish, with one toe that rotates so the bird can have two talons in front and two in back, enabling it to better hold on to a fish. Assisting them are spicules, sandpaper like projections on the bottom of the feet that hold prey. After catching a fish they line it up so that its head faces forward, an adaptation to minimize wind resistance. And not surprisingly for a bird that plunges into water to nab its prey, the fish hawk’s plumage is oily, helping the feathers from becoming saturated.

More conspicuous than the birds are their distinctive nests, bulky affairs made of various sized sticks, which dot the East End landscape. Ospreys are “packrats with wings” and many nests contain more than just sticks including such items as seaweed, roping, small buoys, there are even reports of nests containing a feather duster, door mat, toy doll and sailboat!

The males arrive first from their wintering grounds and “sky dance” over their nest, involving swooping and diving over it often carrying nesting material or a fish. Females typically arrive a few days later. If things go well she’ll lay two to four speckled eggs and begin incubating after laying the first egg which then hatches first (these hatchlings, not surprisingly fare best, in lean years). The young develop quickly and in about two months are ready to leave for good the confines of the nest.

As the temperature drops ospreys will head south, with some traveling as far as central South America to overwinter. But as the earth moves in its orbit around the sun and Winter turns to Spring in the Northern Hemisphere, the resident ospreys return to the place where they were born. So, this St. Patty’s Day when you hoist your glass of green beer to toast St. Patrick, why not also make a toast to the return of Peconic Bay’s feather icon - the fish hawk.


Photo birding.com

SPRING 2016 7
What can I do to help improve water quality in the estuary?

Get involved! After all, it was a group of citizens who first came together after seeing the negative impacts of brown tide on the estuary and pledged to protect the Peconic Estuary forming the PEP Citizens Advisory Committee. Concerned citizens were responsible, along with federal, state, county and local levels of government for creating the first Peconic Estuary Comprehensive Conservation and Management Plan (CCMP) in 2001. This year the Peconic Estuary Program is embarking on a revision of the CCMP. Much has changed since the first plan was written and it is your turn to be a part of molding the new CCMP. Improving water quality in the Peconic Estuary is a complex issue and requires the cooperation and coordination of multiple groups. The Peconic Estuary is a changing system and the issues that plague it have evolved over the past decade. Issues that are expected to be addressed in the revised CCMP are nitrogen loading, climate change adaptation, harmful algal blooms and habitat restoration.