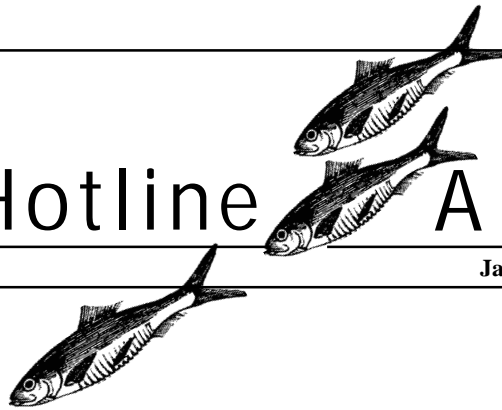


# Habitat Hotline Atlantic

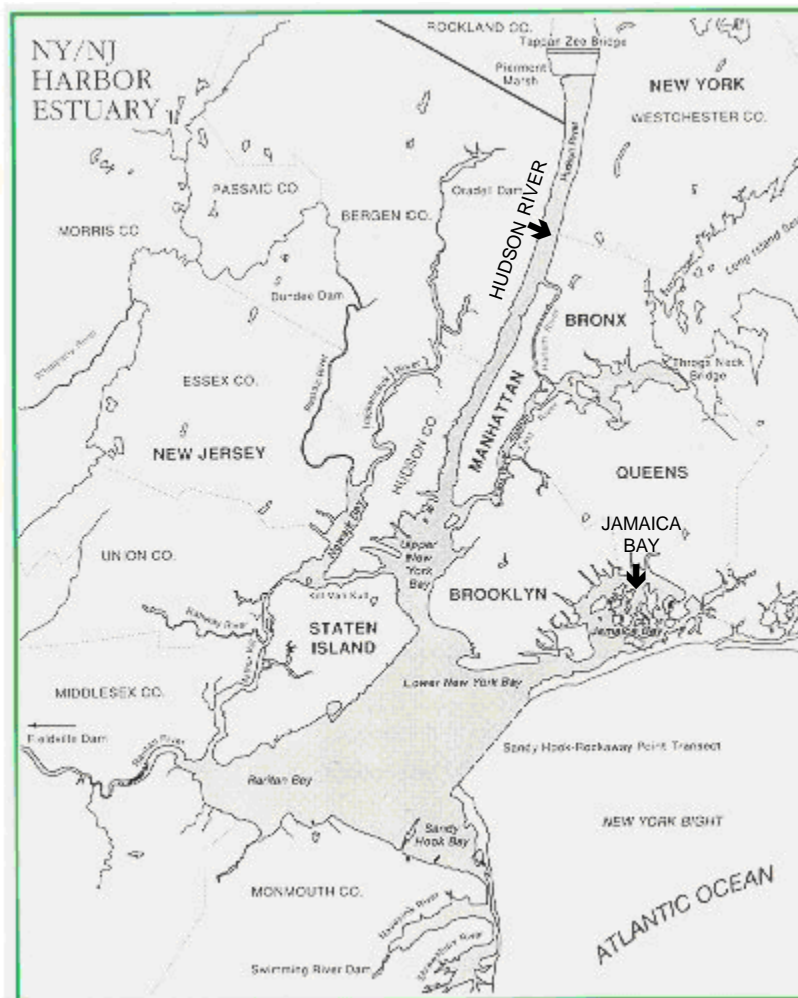
Issues of Concern for Atlantic Marine Fish Habitat

January 2004, Volume XI, Number 1



## Fish Habitat in Urban Environments: NY-NJ Harbor

Urban fish habitats are alive and in need of restoration and protection. New York Harbor, also called NY-NJ Harbor (Figure 1), abounds with diverse natural resources, yet it is the heart of the most densely populated region of the nation. It provides recreational opportunities including fishing, boating, and swimming to over 20 million residents, and at the same time supports a busy international port for passengers and cargo. The Hudson River estuary, which intersects with NY-NJ Harbor, is one of New York's outstanding natural resources, well known for its history and scenery and vital as part of the Atlantic Coast ecosystem. Forming partnerships has created an important way for the New York State Department of Environmental Conservation (DEC) to identify, eliminate and



**Figure 1. Map of NY-NJ Harbor Estuary.**  
Source: <http://www.harborestuary.org/about.htm>

mitigate threats to vital urban fish habitats. This article focuses on the results of fish habitat work conducted in NY-NJ Harbor and the Hudson River estuary by DEC and its partners. It is based on a symposium organized by Karen Chytalo from DEC that included five presentations on **Fisheries Habitat in Urban Environments** made at the Atlantic States Marine Fisheries Commission's (ASMFC's) annual meeting held December 2003 in New York City (NYC).

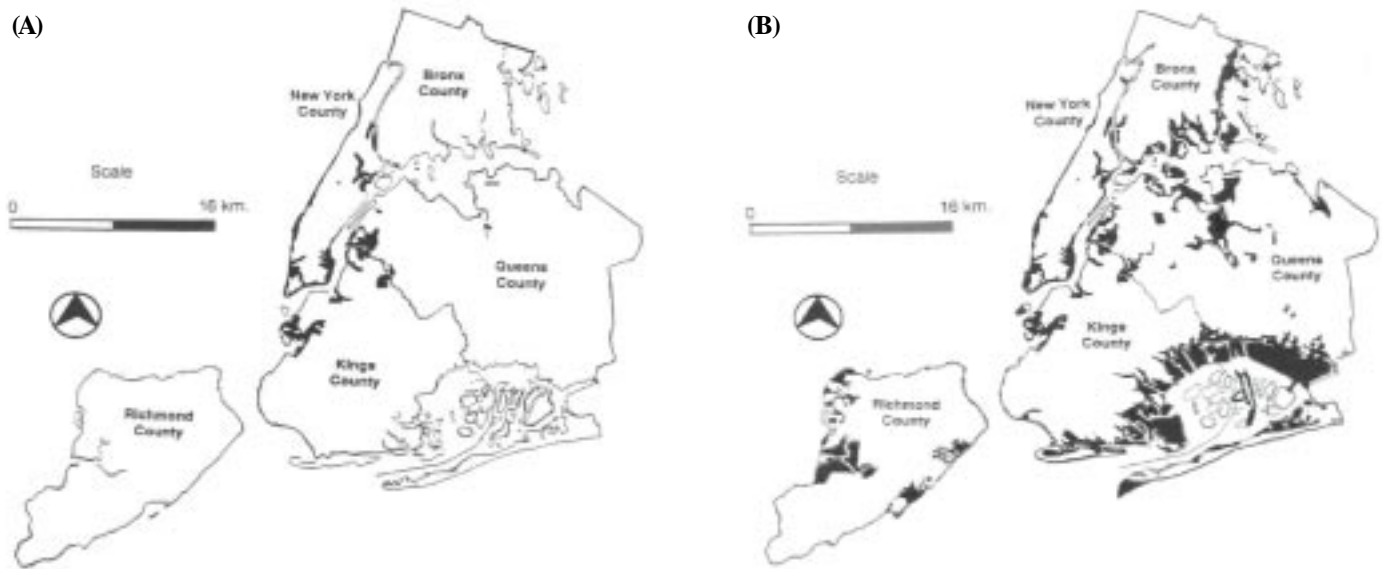
### **NY-NJ Harbor, Evolution of the Fisheries Habitat**

The evolution of the habitat in NY-NJ Harbor is intricately linked to its history. Much of the fate of the Harbor habitat was set nearly 400 years ago. Large tracks of habitat were lost at specific points

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**Figure 2. Increase in landfill construction between (A) 1844-1900 and (B) near present day. Shading indicates areas filled in.**

in time and not gradually over the 400 years. In addition, there was a concurrent degradation of habitat (from dumping everything in the water) that resulted in a gradual loss in habitat quality over time.

The Hudson Valley and NY-NJ Harbor were formed during the Pleistocene, when the Wisconsin glacier covered the area. In 1609 sailing under the Dutch flag, Henry Hudson discovered the natural riches of the area, which was inhabited at the time by the Lenape Indians. Soon thereafter, the trading post, New Amsterdam, was established. In 1625 Fort Amsterdam was built in Manhattan's southern tip to protect the Dutch's valuable fur trade industry. In 1626 the Dutch purchased fourteen thousand acres of land from the Lenape Indians and it became a busy commerce port. During this time in the 1600s, some areas of the shoreline were filled in and hardened to facilitate trade and as part of the fortification. After the British took over the area in 1664, not much happened to the habitat until after the revolutionary war, except a few fillings for military purposes.

In the 1800s the Harbor became a major shipping port. In 1811 the natural geography of Manhattan Island was leveled to create the Manhattan Grid. As a result, streams, marshes and ponds were filled in and hills were flattened. The Erie Canal was built and in 1825 connected the Harbor to Lake Erie, opening up trade with the interior of the continent and making NYC the shipping capital. Hundreds of piers and docks were constructed and dominated the shoreline in Manhattan and Brooklyn. Later in 1885, Hell's Gate Reef was blasted away to provide a safer area for shipping because many ships and lives were lost on the reef's rocky outcrops. Fishing was a big industry, e.g., striped bass, shad, bluefish, weakfish, blue crabs and oysters. During the same time, the population grew from just over 79,000 people in 1800 to over 4 million in 1905.

The greatest habitat loss occurred from 1930-1970 during the depression years and post World War II, when roads, parks, housing, landfills and airports were built. Garbage dumps were constructed by creating a berm in the water and backfilling it with garbage. Figure 2 shows the increase in landfill construction between the late 1880s and recently. By the 1960s, over 70% of marshlands and shallow water habitat was lost in the Harbor. Furthermore, the area was degraded from toxic substances. Agent orange and polychlorinated biphenyls (PCBs) were manufactured in the area and found their way into the rivers and harbor waters, and eventually into the sediments, fish and other coastal organisms.

Turn around began in the 1970s with passage of a number of federal and state environmental laws, such as the Clean Water Act, aimed at protecting waters from further degradation and restoring them to healthier conditions. The following sections describe many of the programs sponsored by federal and state governments and nonprofits that involve habitat restoration in the NY-NJ Harbor area.

### **NY-NJ Harbor Estuary Program**

The NY-NJ Harbor Estuary Program (HEP) is part of the National Estuary Program (NEP) authorized in 1987 by the U.S. Environmental Protection Agency (EPA) under the Clean Water Act. Currently, there are 28 NEPs nationwide, each designated as an estuary of national significance. Under this program, partners from federal and state governments, environmental groups, academic institutions and individual citizens join their efforts and resources together to address problems in our nation's estuaries.

Some areas of concern in the NY-NJ Harbor involve toxic contamination, pathogens, nutrients, habitat and living re-

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sources, floatable debris, rainfall-induced discharges, management of dredged material and public involvement and education. Toxic contamination is a problem in the water, sediments and living resources resulting in fish consumption advisories, possible wildlife health issues, and sediment toxicity. Steps are being taken to address the toxics problem by identifying toxic loads and ambient conditions to determine total maximum daily loads (TMDLs), tracking down PCBs, cleaning up nearby Superfund sites (PCB-contamination in Hudson River and dioxin contamination in the Passaic River), and developing and implementing sediment decontamination technologies.

A major source of pathogens is the combined sewer system. During wet weather, sewer flows and stormwater runoff may exceed the capacity of the system and be diverted away from treatment plants and discharged directly in coastal waters. This is called a combined sewer overflow (CSO). Such discharges introduce unwanted pathogens to coastal waters affecting interstate shellfish resources and swimming areas, leading to area closures for shellfishing and swimming. To address the pathogen problem, scientists are modeling the whole harbor system for fecal coliform and *Enterococcus*. The model results will be used by managers to develop TMDLs and enforceable waste load allocations. A notification network for announcing waste water releases and potential health risks is also in place. Another discharge problem involves the release of excess nutrients that leads to conditions of low dissolved oxygen in area waters. In particular, nitrogen and carbon are problematic in the Harbor. There have been great improvements in water quality, but some areas still don't meet the current water quality standards/criteria. TMDLs for nutrients, pathogens and toxics are being developed and will be implemented in 2006.

Floatables were a major issue in the Harbor in the late 1980s causing many beach closures, creating hazards to navigation and damaging habitat.

Although now there are virtually no designated beach closings due to floatables, they still are a major problem in some areas. Several actions have been implemented to reduce floatables. The EPA and the New Jersey Department of Environmental Protection (NJDEP) conduct aerial slick surveys. The U.S. Army Corps of Engineers (ACOE), NYC and Passaic Valley Sewerage Commission use skimmer vessels to remove floatables

from the Harbor. NYC and NJDEP capture floatables at a number of combined sewer overflow (CSO) discharge points. The NJ Clean Shores program uses prisoners to clean-up shore areas to remove sources of floatables. In addition, volunteer clean-ups are being conducted along area beaches.

As already noted, much of the upland and wetland habitat in the Harbor area has been lost. The relatively small amount of remaining habitat is ecologically valuable. Various federal and state restoration programs are being conducted to acquire and restore habitat, such as the U.S. Fish and Wildlife Service's Coastal Wetland Grants, the New York State Environmental Protection Fund and Clean Water/Clean Air Bond Act, the NJDEP's Green Acres Program and others. Habitat restoration is also an important part of the area's fisheries restoration.

### Tidal Wetlands Loss in New York's Marine District

The New York state Tidal Wetlands Act, which became effective in 1973, was enacted to protect and preserve tidal wetlands and their values. In 1974, the Tidal Wetlands Inventory was initiated to identify and classify all tidal wetlands in the marine district. In 1977, the Tidal Wetlands Regulation became effective, regulating all types of activities within specified distances of the tidal wetlands boundary, for example within 150 feet of New York City's tidal wetlands boundary. Using the information obtained from the Inventory as a baseline, scientists with the DEC have been conducting tidal wetland trend analyses using Geographical Information System technology to evaluate the effectiveness of the tidal wetlands regulatory program and determine changes in the amount of tidal wetlands since 1974.

The regulatory program has been highly successful in "stemming the tide" of traditional "fill and build" activities. In fact there were gains in tidal wetlands in Moriches and Shinnecock Bays due to the landward migration of the wetlands. However, the DEC has observed significant losses of vegetated tidal wetlands, principally *Spartina alterniflora*, in marsh islands in Jamaica Bay. Table 1 shows results of tidal wetland trends in Jamaica Bay and in focus areas within the marine district.

Potential factors causing tidal wetland losses include sediment budget disruption, ponding in the interior sections of

Location	1974 estimate of tidal wetlands	Most recent estimate (year) of tidal wetlands	Acres lost since 1974	Rate of loss (acres/year)	% of acres lost since 1974
Jamaica Bay	1,809 acres	1,063 acres (1999)	746	29.84	41%
Corey Creek*	28.16 acres	20.41 acres (2002)	7.75	0.2	27%
Cedar Beach, Southold	19.72 acres	11.16 acres (2002)	8.56	0.3	43%
Goose Island	61 acres	46 acres (1998)	15	0.62	24.6%
Manor Haven	8.91 acres	3.42 acres (1994)	5.49	0.25	61%
Flax Pond	73 acres	58 acres (1999)	15	0.6	20.5%
Mt. Sinai Harbor	95.3 acres	48.7 acres (1999)	46.67	1.86	48.96%

\*Excludes 3.32 acres of tidal wetlands that were added in a dredge spoil area.

**Table 1. Tidal wetland trends in Jamaica Bay and in focus areas within the marine district.**

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the marsh, wind and wave erosion, ice shearing and ice rafting, and sea level rise. To further address wetland losses and to reverse the trend in Jamaica Bay and elsewhere, specific and generic strategies were developed recommending that the following steps be taken:

- Brief stakeholders,
- Expand public awareness,
- Support restoration projects,
- Conduct expedited trends analysis of focus areas,
- Identify specific areas of loss (those >10%),
- Determine reasons for losses,
- Develop management plans and work with partners (towns, villages and others) to begin remediation process.

### **Restoration and Protection Efforts to Combat the Wetlands Loss and Impacts of Dredging in New York Harbor**

The DEC participates in three broad programs to address wetland losses and dredging impacts in NY-NJ Harbor: (1) A regulatory program, (2) Natural Resources Damages Accounts (NRDA) and (3) Regional, state and national programs, some of which have been described in previous sections.

The DEC regulatory program for marine habitat protection has been very effective. For example, preservation of sensitive habitat is accomplished by preventing development, e.g., denying permits. For unavoidable impacts, mitigation is required. Other city, state and federal regulatory programs are also in effect. In addition, the DEC pursues violations of New York's Environmental Conservation Law and requires restoration of impacted sites. Environmental benefit projects (EBPs) are significant remedial projects that are generally based on widespread, negatively impacting activities like landfills, industrial or municipal discharges. EBPs are undertaken as part of a civil settlement that partially compensates for the environmental damage associated with a violation of applicable standards.

Natural resource damages usually result from unanticipated events such as oil spills. NRDA programs are established to 'repay' the damages done to the environment. More oil comes into New York Harbor than any other port in the nation and the estuary is criss-crossed with pipelines. With that much activity, spills are unfortunately going to occur. When they do and significant habitat impacts occur, the DEC represents the State in the development of the appropriate settlement claim. Oil spills are not the only category of damages. Of local importance has been a claim against NYC for improper landfill operation, much of which occurred on the shores of Jamaica Bay. This led to the creation of the Jamaica Bay Damage Account (JBDA), administered by the DEC. The JBDA's mission includes restoration and preservation of habitat. In one instance, JBDA funds were used to acquire an 11 acre parcel and remove fill to restore wetlands and improve upland habitat on the site. JBDA funds have also been used to leverage additional funding from grants programs.

The DEC administers or participates in a number of regional planning programs including: the HEP, Hudson River

Estuary, Hudson River National Estuarine Research Reserve System, Long Island Sound Study, and NY-NJ Harbor Dredged Material Management Plan. The regional management plans focus on a specific geographic area and outline issues and opportunities. Each program includes a component of habitat restoration and preservation activities.

As described previously, the HEP is the primary program in NY-NJ Harbor and under it, 158 restoration/preservation opportunities around the Harbor have been identified and prioritized. The next step is to identify funding opportunities for implementation. The State's most recent environmental bond initiative (1996 Clean Water/Clean Air Bond Act) has provided tens of millions of dollars for habitat improvements in NY-NJ Harbor. NY's Environmental Protection Fund (EPF) uses revenues from real estate taxes to fund acquisition and stewardship projects. In recent years, federal programs have become a significant source of funding, including the Army Corps General Investigations (GI), Army Corps Continuing Authorities Program (CAP) and Federal Highway ISTEA grants. Federal funding is often matched with local funding e.g., JBDA and NRDA funding.

Overall, results show that 1,700 acres have been acquired at a cost of \$30 million and 650 acres have been restored for \$64 million. These major advances to restore and preserve natural resources in NYC require the cooperation and resources from all the regional stakeholders, because the task is much bigger than any one program could handle alone. For example, the DEC sought funding for a large-scale (>100 acres) project to restore salt marsh islands in Jamaica Bay. The state Bond Act is contributing one million dollars and additional funding from the Army Corps' CAP combined have made over \$6 million available for the project. Restoration sites have been identified and restoration is moving forward on several sites including Elder's Point Marsh. The plan is to re-establish over 70 acres of marsh equal to that found in 1974. In this project, the fill material would be supplied from dredging Rockaway Inlet, meeting the beneficial reuse priority in the regional Dredged Material Management Plan.

### **The Hudson River Estuary Program and the Hudson River National Estuarine Research Reserve**

The Hudson River Estuary is different from other Atlantic Coast estuaries. It is long (152 miles), narrow (only 3.5 miles at widest point), and buffered (limestone bedrock). The nutrient load per acre in NY Harbor is probably the highest for any major estuary in North America, however, the nutrients mix and flush quickly compared to other estuaries. Significant habitat loss has occurred over time associated with development, construction of dams along the Hudson River, and invasive species. In particular, zebra mussels have changed the ecosystem. Historically, the Hudson River has supported a rich fishery and currently there is still a relatively healthy fishery. The original species diversity has been retained and many stocks have remained in good condition, however, shad and sturgeon have been over-harvested and recovery will take decades.

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The Hudson River Estuary Program is a regional partnership created to protect, conserve, restore and enhance the estuary. To implement this program, the Hudson River Estuary Action Plan was completed in 1996. The plan is updated every few years with the most recent update in 2001. One of the plan's goals is to assure the health and recovery of key fisheries. For example, a long-range fishery goal under consideration is to establish fishable levels of sturgeon stocks by 2050. Other goals of the plan include conserving habitats for all life stages, restoring habitat, and cleaning up pollution. To address habitat loss in estuary, the plan's goals call for habitat mapping, conservation and restoration of critical river habitats by 2007. Key elements to accomplishing these goals are creation of a habitat inventory, understanding habitat functions, and understanding habitat change. Restoration projects are being identified and implemented e.g., river herring, natural shoreline and tidal wetlands restoration projects. Conservation measures are being developed.

The plan has produced measurable accomplishments. For example, \$50 million have been invested to upgrade wastewater treatment plants and combined sewer overflows and studies have been funded, for the first time, to track and clean-up contaminants river-wide. To date, \$190 million have been made available to implement the action plan. The program has built successful partnerships among state and federal agencies, local government and organizations, researchers and universities and others to share resources and knowledge. In addition, newly mapped habitats will be included on significant coastal fish and wildlife habitat maps and tidal wetlands and SAV beds will be included on state wetland maps.

The Hudson River National Estuarine Research Reserve (Reserve) is a partnership between New York State and the National Oceanic and Atmospheric Administration, with the DEC as the lead agency. The Reserve includes 5,000 acres at four sites—Stockport flats, Tivoli Bays, Iona Island, and Piermont Marsh. The purpose of the Reserve is to promote better management via research, education, outreach and stewardship. In addition, the Reserve provides services to the Hudson River Estuary Program. Examples of education and outreach activities at the Reserve include public field programs, training educators, workshop for decision-makers, exhibits and special events. Research at the Reserve includes habitat restoration and watershed studies, and monitoring. Important components of the program involve working with landowners to promote conservation and good stewardship, conducting habitat mapping and monitoring, and preparing the river habitat portion of the Estuary Action Plan.

#### Authors and Acknowledgements

This article was based on a symposium entitled "Fisheries Habitat in Urban Environments" held at the ASMFC's 2003 Annual Meeting and organized by Karen Chytalo from the New York State DEC. The following organizations and individuals were speakers and contributors at this symposium and to this article:

**James Gilmore**, NYSDEC, 718-482-4875 or [jjgilmor@gw.dec.state.ny.us](mailto:jjgilmor@gw.dec.state.ny.us)—Presentation on *NY-NJ Harbor, Evolution of the Fisheries Habitat*.

**Robert Nyman**, U.S. EPA, 212-637-3809 or [Nyman.Robert@epamail.epa.gov](mailto:Nyman.Robert@epamail.epa.gov)—Presentation on *NY-NJ Harbor Estuary Program*. For more information on the NY-NJ Harbor Estuary Program visit the website: [www.harborestuary.org](http://www.harborestuary.org).

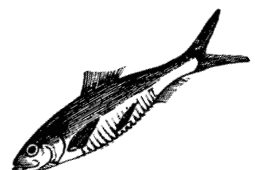
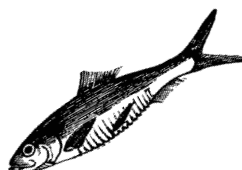
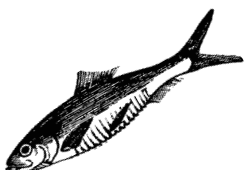
**Fred Mushacke**, NYSDEC, 631-444-0465 or [fmmushac@gw.dec.state.ny.us](mailto:fmmushac@gw.dec.state.ny.us)—Presentation on *Tidal Wetlands Loss in New York's Marine District*. For more information on New York's tidal wetlands trends analysis visit the website: [www.dec.state.ny.us/website/dfwmr/marine/twloss.html](http://www.dec.state.ny.us/website/dfwmr/marine/twloss.html).

**Steve Zahn**, NYSDEC, 718-482-6461 or [smzahn@gw.dec.state.ny.us](mailto:smzahn@gw.dec.state.ny.us)—Presentation on *Restoration and Protection Efforts to Combat the Wetlands Loss and Impacts of Dredging in NY Harbor*.

**Frances Dunwell**, NYSDEC, 845-256-3016 or [ffdunwel@gw.dec.state.ny.us](mailto:ffdunwel@gw.dec.state.ny.us)—Presentation on *The Hudson River Estuary Program*. For more information on the Hudson River Estuary Program visit the website: <http://www.dec.state.ny.us/website/hudson/>.

**Betsy Blair**, NYSDEC, 845-758-7011 or [bablair@gw.dec.state.ny.us](mailto:bablair@gw.dec.state.ny.us)—Presentation on *The Hudson River National Estuarine Research Reserve*. For more information on the Hudson River National Estuarine Research Reserve visit the website: <http://www.dec.state.ny.us/website/hudson/>.

**Karen Chytalo**, NYSDEC, 631-444-0430 or [knchytal@gw.dec.state.ny.us](mailto:knchytal@gw.dec.state.ny.us)—Symposium Organizer for *Fisheries Habitat in Urban Environments*.



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# National Coastal Wetlands Conservation Grants Awarded

Interior Secretary Gale Norton announced on December 10, 2003 that the U.S. Fish and Wildlife Service will award nearly \$17 million in grants to 10 states to conserve, restore and protect coastal wetlands. States awarded grants for fiscal year 2004 under the National Coastal Wetlands Conservation Grant Program are Alabama, Alaska, Connecticut, Florida, Massachusetts, New Jersey, South Carolina, Texas, Virginia and Washington.

The grants, which provide funding for 20 projects, will be supplemented by more than \$42 million from state and private partners. The Service makes yearly matching grants to coastal states and U.S. territories for projects involving the acquisition, restoration or enhancement of coastal wetlands. Projects are administered for long-term conservation benefits to wildlife and habitat.

To date, the Service has awarded more than \$139 million in grants to 25 states and one U.S. territory under the National Coastal Wetlands Conservation Grant Program. When the 2004 grants projects are complete, they will have protected and/or restored more than 19,000 acres. About 167,000 acres will have been protected or restored since the wetlands grant program began in 1990.

The Program operates on an annual cycle and grants are awarded through a competitive process. Regional Federal Aid Offices usually request proposals from the States in early April. Proposals must be received by the Regional Director on or before a due date normally set in early June in order to be considered for funding in the following fiscal year. Check with the Regional Office for the exact due date each year [**Florida, Georgia, North Carolina, South Carolina:** Region 4 Director in Atlanta, Georgia (404) 679-4159; **Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Virginia:** Region 5 Director in Hadley, Massachusetts (413) 253-8508.]

Funding for the program is generated from excise taxes on fishing equipment and motorboat and small engine fuels. These taxes are deposited into the Sport Fish Restoration Account of the Aquatic Resources Trust Fund (commonly called Wallop-Breaux after its Congressional sponsors).

For more information about the National Coastal Wetlands Conservation Grants program contact the National Coastal Wetlands Conservation Grant Program, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Arlington, VA 22203 or the Division of Federal Aid, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Arlington, VA 22203; or check the program's Internet home page at <http://www.fws.gov/cep/cwgcover.html>.

## Atlantic Coast Projects Selected for FY 2003 National Coastal Wetlands Conservation Grants

**Connecticut:** *Barn Island Wildlife Management Area Acquisition.* The CT Dept. of Environmental Protection will acquire 144 acres of an important marsh and upland forest-wetland edge adjacent to the States Barn Island Wildlife Management Area. This acquisition, added to the existing Wildlife Management Area, would create the States largest protected coastal land holding.

**Florida:** *Indian River Lagoon.* The FL Dept. of Environmental Protection will acquire 105 acres of diverse habitat on the mainland edge of the Indian River Lagoon Estuary in St. Lucie County. Long-term protection of this site will provide habitat for species that use scrub, moist hardwoods, and coastal marsh.

**Massachusetts:** *Quivet Marsh/Crowes Pasture Acquisition.* The MA Dept. of Environmental Management (DEM) will protect 386 acres with perpetual conservation easements on wetlands and adjacent uplands on the north shore of Cape Cod within the Towns of Dennis and Brewster. This area is designated as part of the federal Coastal Barrier Resources System and is the largest remaining area of unprotected, undeveloped land on the Cape Cod coast.

*Sandy Neck/Barnstable Marsh Barrier Beach System Land Acquisition and Restoration.* The DEM in cooperation with the State's Division of Marine Fisheries and the Massachusetts Wetlands Restoration Partnership, will purchase conservation restrictions on 75 acres of barrier beach frontage within the Sandy Neck Barrier Beach wetland complex bordering the north shore of Cape Cod. The project site is in a state-designated Area of Critical Environmental Concern because it provides exceptional habitat for a diverse array of species.

**New Jersey:** *Cheesequake Marsh Acquisition.* The New Jersey Department of Environmental Protection will acquire 234.5 acres in Middlesex County adjacent to Raritan Bay and 3.6 miles from New York City. A large number of migratory and wintering waterfowl depend on Raritan Bay. This parcel will be added to the existing 1,359-acre Cheesequake State Park.

**South Carolina:** *Protection of Maritime Forest, Islands and Hummocks in the Kiawah River Environs.* The Department of Natural Resources will purchase 4 acres and protect by conservation easements 1,111 acres of islands, dunes and wetlands in and near the Kiawah River in Charleston county. The project area falls within the Atlantic Coast Joint Venture Focus Area and addresses the objectives of 4 major migratory bird plans.

**Virginia:** *Game Farm Marsh Wetland Acquisition.* The Virginia Department of Game and Inland Fisheries will acquire 103 acres of forested wetlands and associated open water and emergent wetland habitat on the Chickahominy River, a tributary of the James River. The site includes undisturbed old growth timber and is in close proximity to the existing State Game Farm Marsh Wildlife Management Area.

*Protection of Crows Nest, Stafford County, Virginia.* The Virginia Department of Conservation and Recreation will purchase 1,500 acres in Stafford County on the Crows Nest peninsula. The Crows Nest peninsula is home to 2 nesting pairs of bald eagle and also home to one of the largest heron rookeries in the Chesapeake Bay watershed. This area will be protected in perpetuity as a State Natural Area Preserve.

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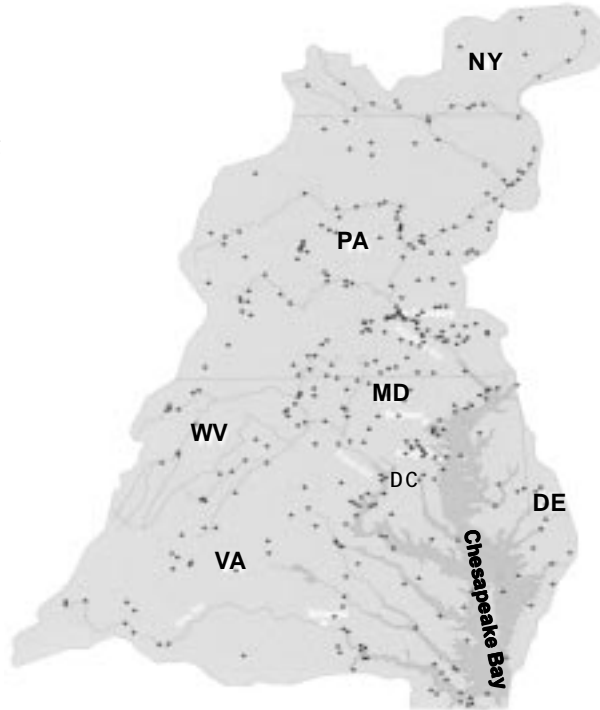
## Group Takes Legal Action to Reduce Nitrogen Pollution in Chesapeake Bay

On November 25, 2003, the Chesapeake Bay Foundation (CBF) took legal action and formally petitioned the U.S. Environmental Protection Agency (EPA), demanding that water discharge permits for sewage treatment plants and industrial facilities include adequate, enforceable effluent limits on nitrogen pollution. The Clean Water Act, enacted in 1972, requires the EPA and the states to issue permits for all sewage treatment plants and industrial outfalls that are sufficiently stringent to protect water quality in the Chesapeake Bay and its tributaries. The Bay and the tidal portions of its tributaries have been formally designated as impaired by nutrient pollution.

Sewage treatment plants are the second largest source of nitrogen pollution to the Bay. Other major sources include agricultural run off, air pollution, and urban runoff. Under the Clean Water Act, EPA has the prime responsibility for assuring that the states in the Bay watershed (Maryland, Virginia, Pennsylvania, New York, Delaware, West Virginia, and the District of Columbia) implement their water programs consistent with the Act's requirements.

The petition requests a series of specific actions from EPA that include:

- Beginning to require that states in the watershed include adequate, enforceable effluent limits for total nitrogen in existing discharge permits to protect water quality in the Bay watershed from excess nutrients.
- Establishing new technology standards for sewage plants and industrial facilities that require nitrogen reduction to a level consistent with today's affordable technology. EPA has not updated these standards in almost 20 years.
- Restricting new sewage and industrial discharges of nitrogen into the Bay watershed until Total Maximum Daily Loads (TMDL) for nitrogen are completed, and controls are placed on existing dischargers of nitrogen in the watershed.
- Requiring that at least 25% of EPA state grant funds are directed toward nutrient reduction measures.



**Map showing location of major sewage treatment plants (black dots) in the Chesapeake Bay watershed. Source: [www.cbf.org](http://www.cbf.org) (under maps in Bay Resources).**

Nitrogen pollution has been recognized for more than 20 years as the single largest problem facing the restoration of the Bay. Recent analysis of nutrient monitoring data in October 2003 projects that in 2003, 459 million pounds of nitrogen pollution will likely flow into the Chesapeake Bay, contributing to one of the largest "dead zones" observed by scientists in almost 20 years of data collection. The calculations demonstrate that more nitrogen is polluting the Bay than previously thought.

The Chesapeake Bay Program Executive Council (EC) met in December and formally adopted a nitrogen reduction loading goal of 175 million pounds per year. The goal is to be reached by 2010. The EC also announced it would pursue two new approaches in its efforts to reduce nutrient pollution—developing a new watershed-based permitting plan and forming a blue ribbon Bay restoration financing panel. However, the EC did not take any immediate action to reduce nitrogen pollution from

agriculture or sewage treatment plants, e.g., set enforceable limits and timetables, as the CBF had hoped. The EC is made up of the governors of Maryland, Virginia and Pennsylvania, the mayor of the District of Columbia, the EPA administrator, and the chairman of the Chesapeake Bay Commission.

### Sources:

CBF press releases: **CBF Takes Legal Action to Compel EPA to Enforce the Clean Water Act** Tuesday November 25, 2003 and **New CBF Analysis Shows Nitrogen Pollution Worse Than Previously Thought** Thursday October 16, 2003 ([www.cbf.org](http://www.cbf.org))

CBF News brief: **Politics of Postponement Prevail at EC Meeting** Wednesday December 10, 2003 ([www.cbf.org](http://www.cbf.org))

Chesapeake Bay Program Press Center: **Bay Leaders Mark 20th Anniversary by Forming Financing Panel, Strengthening Goals and Strategies** December 9, 2003 ([www.chesapeakebay.net/press.htm](http://www.chesapeakebay.net/press.htm)).

## Three Port Cities Receive Federal Funds to Clean-up Contaminated Sites

A new program, the Portfields Initiative, led by the National Oceanic and Atmospheric Administration (NOAA) is aimed at working with port communities in revitalizing waterfront areas, improving marine transportation (such as barges), and restoring and protecting coastal resources. Three port cities will receive federal support in the cleanup and reuse of portfields<sup>1</sup> properties including New Bedford, Massachusetts, Tampa, Florida, and Bellingham, Washington. Each port was selected for its strong commitment to redevelopment, its particular needs, and the quality of its proposal to work with eight different federal agencies on the Portfields Initiative i.e., NOAA, the Environmental Protection Agency, the Economic Development Administration, the Maritime Administration, the Department of Labor, the Army Corps of Engineers, the Department of Interior, and the Department of Housing and Urban Development.

The benefits of portfields redevelopment are many. Redevelopment can remove or stabilize dangerous structures and contamination in or near waterways; restore health and natural functions to watersheds by improving surface-water and ground-water quality; remediate and restore wetlands, woodlands, and habitat; improve stormwater management systems; reduce health

risks for nearby communities and waterway users; remove eyesores; and help improve air quality. Reuse of these sites can provide jobs, goods, and services and help increase the community's access to its waterfront. By redeveloping portfields sites, communities can expand their port facilities, increase commercial port activity, and provide economic development opportunities.

For more information on the Portfields Initiative visit the International City/County Management Association's (ICMA) website: <http://www1.icma.org/main/ns.asp?nsid=636&hsid=1&scid=1> which includes a link to the report, Portfields Interagency Initiative: Phase I, Fall 2003. For more information about brownfields, visit <http://www.epa.gov/brownfields>.

*Sources:* ICMA website (<http://www1.icma.org/main/ns.asp?nsid=636&hsid=1&scid=1>), NOAA press release 03-126 on 10/27/03, and EPA Headquarters press release on 10/27/2003.

<sup>1</sup>Brownfields are degraded lands that may be contaminated with hazardous substances, and portfields are brownfields located in and adjacent to ports.

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