

# Chapter 7 - Statewide Programs

New York State provides a variety of recreation experiences, ranging from the playgrounds of New York City to the wilderness areas of the Adirondacks. This is a dynamic system comprised of "people", "resources", and "recreation". Each element has an influence on the other two. For instance, the composition of the population will impact the need for recreation, the quality of the resource will determine the availability of recreation opportunities and the type and extent of recreation can affect resource quality and the quality of life for people. For Example, the improved water quality of a lake or river, will provide recreational opportunities, that will influence where people, live, work and play. Therefore, recreation opportunities, open space and resources are all influenced by, and a factor to be considered, within various agency programs and initiatives.

opportunities increased resulting in an overall economic benefit to the communities.

Associated with land and water resources are the wildlife and fisheries resources that enhance and provide recreational opportunities. Wildlife focuses on both game and nongame species and is less location-specific when compared to other recreation resources; as a result, stewardship of wildlife crosses geographic and political boundaries. Fisheries management is similar to wildlife except it is more location-specific and closely associated with water quality and access.

In addition to the land and water resources, cultural resources help define the character of the State and our past. New York has a rich and diverse array of cultural resources and it is becoming more important to relate several historic

accessible to persons with disabilities are no longer the exception but are integrated within the design of new and rehabilitated facilities.

This chapter will explore various agency programs and initiatives that have an impact on or are impacted by the quality of the recreational and open space resources or experiences they provide. This will include programs traditionally associated with recreation and others that may not be readily apparent. Additional relevant programs are discussed elsewhere in the plan.

The following table identifies federal and state agencies and their involvement with six broad program areas. These program areas are further defined within the chapter by agency. In various cases, there is overlap among agency programs that are guided by an inter-agency task force within a resource area. As such, the program will be described under the primary administering agency or may be applicable statewide.

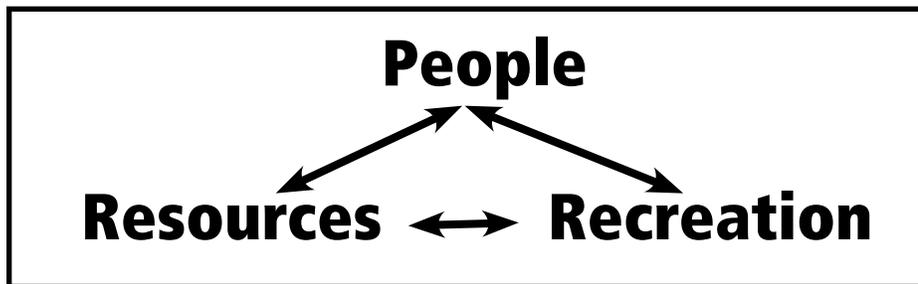


Figure 7.1 - People, Resources and Recreation

New York State's vast number of lakes, rivers and streams and oceanfront provide recreation resources that continue to be major destination locations. Participation in water related activities is often constrained by limited public access and unsuitable water quality. The State has initiated many programs to help improve water quality and increase access to the major waterbodies such as the Great Lakes, Hudson River, Long Island Sound, the Peconic and Hudson River Estuaries, and Lake Champlain. The quality of life in these areas has improved and recreational

sites together, whether through a trail or corridor. These heritage corridors are able to tell a more complete and valuable story of past events and honor the history of the State.

Recreation and open space play a vital role in maintaining the mental and physical health of our citizens as well as supporting the economy of the State. This is apparent by the level of participation in recreation activities and sporting events. There is also an increasing awareness of the needs of all the populations. Facilities that are

Table 7.1 - State and Federal Program Areas

Agency	Planning	Land/ Natural Resource Management	Cultural Resources	Recreation Resources	Programs	Grants
OPRHP	X	X	X	X	X	X
DEC	X	X	X	X	X	X
DOS	X					X
DOT		X		X		X
Canals	X	X	X	X	X	
Museum			X		X	X
ORDA				X	X	
DOH					X	X
OFA					X	
Army Corps	X	X			X	X
EPA	X				X	X
NPS	X	X	X	X	X	X
NOAA	X				X	X

Planning – The Agency develops and/ or coordinates recreation plans for its own facilities or provides technical assistance in planning to other agencies, local governments, organizations or individuals.

Land/Natural Resource Management – The agency owns and actively manages land and natural resources for a recreation or open space purpose.

Cultural Resources – The agency is responsible for procuring, preserving and interpreting cultural resources.

Recreational Resources – The agency is responsible for operating or maintaining recreational facilities.

Programs – The agency coordinates and oversees programs that influence or impact recreation opportunities, activities or facilities.

Grants – The agency administers grant programs that support, enhance or directly relate to recreation, natural, and cultural resources.

# Office of Parks, Rec- reation and Historic Preserva- tion

## NYS Snowmo- bile Program

The New York State Snowmobile Program was legislated in response to the public's demand for places to ride snowmobiles. In 1985, the State Legislature mandated that the New York State Office of Parks and Recreation (OPRHP) be given the responsibility to plan for the development and oversight of a statewide snowmobile program. The planning, development, maintenance and administration of the program were to be funded from the snowmobile registration fees collected annually. Snowmobile registration is a two tier process. With the exception of the first ten dollars collected, the registration fees are \$100.00 for non-members of a New York State Snowmobile Association (NYSSA) snowmobile club, or \$45.00 if the registrant is a Club member. The fees are deposited into a Special Revenue Account, exclusively used to support snowmobiling in New York State. Financial support is provided to local government entities for Snowmobile Trail Grants, Law Enforcement training, Safety Education, Special Event Permits, Accident Reporting, Publications, Grooming Education, Trail Liability Insurance and Signage Guidelines. Revenues from the trail program have increased from approximately \$179,000 (late 1980s) to more than \$6 million (2005).

Revenue projections for 2008 are \$4.2 million. The majority of this revenue is returned to local areas as grants-in-aid for snowmobile trail development/maintenance, trail insurance, and law enforcement. Control and supervision of the Statewide Snowmobile Program is coordinated by a legislated three person staff.

It is the goal of the Snowmobile Unit to promote the maintenance of a safe and enjoyable statewide snowmobile trail system that works in harmony with the state's natural resources while promoting economic development and tourism.

### **Snowmobile Trail Grants**

County, Town, City, or Village governments, as local sponsors, are eligible for snowmobile trail grants within their boundaries. The local governments can sub-contract with snowmobile clubs or organizations for the maintenance of the trails. There are over fifty-five local governments and more than two hundred snowmobile clubs that participate in this program. There are approximately 11,000 miles of funded trails currently in the program. Trail mileage is reviewed and adjusted annually the Snowmobile Unit in coordination with the local sponsors to encourage safety, tourism and utilization.

### **Law Enforcement Program**

OPRHP is the lead enforcement agency that conducts an annual training program for all Snowmobile Law Enforcement officers from state, county, and local agencies. The five day school covers snowmobile law, patrol procedure, accident investigation, field operations, and ice rescue training. Training consists of both classroom instruction and field exercise situations. The course is held each year in January. The quality of training received is relevant to each

enforcement field and toward achieving an effective snowmobile law enforcement program across NYS. OPRHP offers up to 50% reimbursement for costs incurred by municipal police agencies in the enforcement of snowmobile rules and regulations. Funding is provided from state snowmobile registration fees.

### **Snowmobile Safety Education Courses**

Anyone who is at least 18 years old may operate a snowmobile in New York State without any other qualification except as defined by state and local laws regulating that operation. However, it is recommended that all operators complete a recognized snowmobile safety course.

Youth ages 14 through 17 years old may operate a snowmobile without adult or other supervision if they have completed a snowmobile safety training course recognized by the State of New York and have their snowmobile safety certificate in their possession. Youth ages 10 through 13 may operate a snowmobile, on lands which snowmobiling is allowed, if they have completed a snowmobile safety training course recognized by the State of New York and are accompanied by (within 500 feet of) a person who is at least 18 years of age. The law requires that youth age 10 through 13 have their snowmobile safety certificate in their possession while operating a snowmobile. Children less than 10 years old or under age 14 without a safety certificate may operate a snowmobile only on lands owned or leased by their parent or guardian.

Throughout New York State hundreds of active volunteer instructors, certified by OPRHP, offer snowmobile safety courses. Individuals interested in taking a course should visit [www.nysparks.com](http://www.nysparks.com) during the fall and winter in order to see a listing of safety courses being offered throughout New York State.

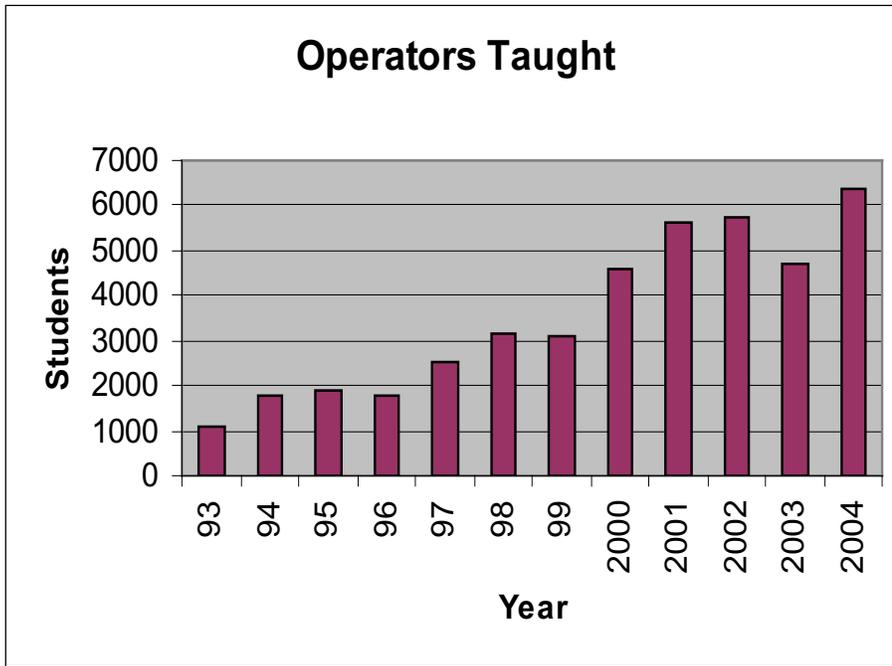


Figure 7.2 - Snowmobile Operators Taught

## Snowmobile Special Events

A "special event" is an organized rally, race, exhibition, or demonstration of limited duration which is conducted according to a prearranged schedule and in which general public interest is manifested.

The sponsor of a snowmobile special event must secure a permit from the Snowmobile Unit. This permit must be secured at least 15 days prior to the snowmobile special event. Appropriate law enforcement must be notified of the event and written permission from the landowner must also be secured. It is the responsibility of the person in charge and the sponsor of the event to provide for the care and safety of the participants and spectators. There is a fee of \$15.00 for securing the snowmobile special event permit. Applications are available through the Snowmobile Unit.

## Snowmobile Accident Reports

The operator of any snowmobile involved in any accident resulting in injuries to or death of any person, or in which property damage exceeds the amount of \$1000 dollars is sustained, must report such accident to an appropriate law enforcement agency. That agency will in turn submit to OPRHP the original snowmobile accident report. OPRHP compiles the accident reports into a yearly statistical report containing such information as: total accidents, total injuries, fatalities, location, collision with, primary cause, age of operator, engine displacement, and helmet worn.

Unsafe speed and operator error are the primary causes of snowmobile accidents. Most accidents continue to be collisions with fixed objects. While we believe that all of the fatal accidents and most of the injury accidents are reported, it is likely that there are many other accidents that go unreported.

## Snowmobile Trail Mapping

The Snowmobile Unit approves all funded trails included in the statewide snowmobile trail system. Using USGS quadrangle maps, Local Sponsors delineate changes and/or updates to their trail system. Trail mileage adjustments are made, by the Snowmobile Unit, based on safety, utilization, tourism development while maintaining natural resource protection and community support.

## Snowmobile Publications

A Statewide Snowmobile Corridor trail map is published on a two to three year cycle. The map is intended to show areas around the state where the funded trails are located. Local sponsors are encouraged to publish their own maps containing greater trail detail as well as tourism information and business locations.

Safety education publications are created for use by instructors and/or students participating in the New York State Snowmobile Safety Course. The primary trail safety publication is the Trail Signing Handbook. The Handbook insures consistent and uniform trail signage statewide to provide snowmobilers with trail use confidence. Publications available to the public via the Snowmobile Unit include the snowmobile guide, snowmobile trail manual, and the snowmobile trail grooming manual.

## Groomer Training

The Snowmobile Unit offers a Groomer Operator Training Program. The grooming training includes technical information and advice in the art of grooming snowmobile trails. Through

the cooperation of OPRHP and NYSSA, many groomer operators have attended grooming workshops held in various locations around the state.

## Trail Inspection Program

A trail inspection program was established in 1994 to monitor Trail Signing Handbook guideline compliance throughout the statewide trail system. As the trail system mileage grew so did a need to expand the inspection program. In 2004, the Snowmobile Unit formed a partnership with NYSSA to establish a more efficient inspection system. The partnership identified a need to develop a volunteer trail advisor program to insure that trail signage was adequate and consistent. A training program was designed and has been greatly improved the past three years. Training sessions for the volunteer trail advisors are held across the state annually. There are currently over 190 qualified trail advisors. Verifying trail signage placement accuracy remains as a priority for advisors. Trail advisors when called upon gather information regarding complaints, safety concerns, and accident sites. Trail advisor inspections are made when requested by the Snowmobile Unit.

## Heritage Programs

New York State has a rich and varied cultural heritage. There are many sites to be interpreted and stories to be told. The importance of our heritage is being recognized on the federal, state and local levels through preservation, interpretation, designation and programming. There is also a link between preserving our heritage, revitalizing communities, and tourism that can benefit all citizens of New York.

## Heritage Areas and Corridors

In March 1977, the New York State Legislature required OPRHP to prepare a plan for a statewide system of Urban Cultural Parks (UCPs) that would foster “the beneficial enjoyment and revitalization of urban areas through preservation, interpretation, development and recreational use of cultural, historic, natural and architectural resources...” In launching the planning process for UCPs, New York became the first state in the nation to undertake the development of a system of parks that focused on the use of significant historical, cultural, and recreational resources to achieve community revitalization.

The New York State Legislature recognized the merit of the program in 1994 when they amended the original Urban Cultural Park legislation to add regional heritage areas, and renamed the system the New York State Heritage Area System. The Heritage Area Program applies the same Urban Cultural Park concept to additional, non-urban parts of the State.

Today, thirty years after the initial legislation, there is an active system consisting of seventeen Heritage Areas and two Heritage Corridors. The system remains the oldest, and one of the largest, statewide heritage systems in the country. Interest continues for inclusion of other areas within the Heritage Area System. The system has grown from the initial thirteen Urban Cultural Parks, encompassing twenty-seven communities, to seventeen Heritage Areas and two Heritage Corridors in 2007, encompassing over four hundred municipalities (Figure 7.3).

A Heritage Area includes the historic, natural and cultural resources and activities that tell the story of a region’s past and provide an identity for the present and future. The resources of a heritage area - main streets, neighborhoods, public building, parks, factories, landscapes – tell the story of how an area developed and why it is unique. The activities of a heritage area – festivals, special events, and regular community life – reflect what was and is important in citizens’ everyday lives. Together these resources and activities create a “sense of place” and make



Figure 7.3 - New York State Heritage Area System

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a heritage area a special place to live and visit. The term heritage corridor is used to describe a heritage area that is organized around and focused on one linear resource such as a river, canal, or coastline.

The cornerstone of the Heritage Area Program is a state, local and private sector partnership focused around four program goals:

- preservation of natural and historic resources;
- recreational use of these resources;
- education about local and regional heritage;
- economic revitalization through public and private investment.

In these partnerships, the State provides technical assistance, financial incentives through matching grants, and a heightened level of coordination among state agencies through the New York State Heritage Area Advisory Council. The Council is an advisory body to the Commissioner and the Governor on the development and management of the Statewide Heritage Area System; a forum to review issues by local governments and other entities; and an organizing vehicle to encourage assistance from other state agencies for the development of the Heritage Area Program.

Each Heritage Area retains complete management and operation of its program, projects, and facilities using various management mechanisms established at the local level. The private sector contributes by providing matching funds for grants, either in cash or donated services, and technical assistance in a variety of ways. The New York Heritage Area Association advocates for issues of interest to the heritage areas and provides a forum and point of information exchange for Heritage Area directors and staff. The Association is a 501c3 non-profit organization comprised of members from the Heritage Areas.

The UCP/Heritage Area Program has received funding from a variety of sources over the years to carry out its program goals. The majority of this funding has been distributed to the local heritage areas. Program grants from 1986 to 2000 totaling \$28.8 million have generated nearly \$100 million in local matching investment, substantiating the claim that a modest amount of funding from the State has had a significant economic impact. If state funding continues in the future, the economic impact to these special communities in the State will continue to grow.

A few specific examples of the economic impact of Heritage Area grants include the following:

- The Heritage Areas Visitor Center grant in Seneca Falls spurred a village/private sector partnership which brought about the renovation of the historic, fire-gutted Partridge Building for use as a Visitor Center/retail/office complex. The \$700,000 State grant attracted a private developer who invested nearly \$2 million in this building which, in turn, helped revitalize Seneca Falls' downtown district.
- OPRHP has invested over \$2.5 million in the Buffalo Heritage Area. Of this amount, \$1,984,500 has been invested in the Market Arcade Complex, a mixed-use development in the heart of the historic Theater District and site of Buffalo's Visitor Center. These grants, along with \$15 million in public and private sector investment in the Arcade have helped drive the revitalization of the Theater District.
- The Heritage Areas Visitor Center Project in Rochester received \$2.6 million dollars of OPRHP Environmental Quality Bond Act (EQBA) funds. This helped generate over \$20 million in city and private funds to renovate the historic Brown's Race District where the Visitor Center is located. The City has contracted with privately owned

management firms to operate the Brown's Race complex. The City is pursuing ongoing revitalization of this area.

- The Kingston Visitor Center in the Rondout district opened in 1992 as the anchor project of the revitalization efforts in this historic waterfront district. The City's commitment to invest its \$530,000 EQBA grant in this district and operate its visitor center here for 23 years, provided the critical financial link for a private developer to develop and lease several nearby properties. Private investments of over \$5 million, plus public investment in waterfront dockage and infrastructure, have transformed this district into a vibrant part of the city.

Many of the heritage areas have visitor centers that provide a community meeting place and point of pride for residents, and provide orientation and motivation for visitors to go out and experience other points of interest in the community. Some of these visitor facilities are modest shared facilities, a few are quite elaborate. All feature interpretative themes that each heritage area has chosen for itself are based on its own unique history. These themes provide a consistent image and identity and are the basis for interpretive programs and events.

These interpretive themes also provide a "brand" to market and promote the Heritage Areas. Tourism plays an important role in the Heritage Areas Program. These themes generate interest from visitors, encourage them to stay longer, help them remember a destination, return at a future date, and spend tourist dollars.

Heritage tourism (sometimes referred to as cultural tourism) is an important component of today's tourism economy. Heritage tourism has been defined by the National Trust for Historic Preservation as "travel to historic and cultural attractions, sites, and regions to learn about the past, and the present, in

an enjoyable way.” The New York State Heritage Area Program has been a leading proponent of heritage tourism for many years and it will continue to serve in this capacity in the years to come.

## **New York State Designated Heritage Areas and Corridors**

**Albany** - Since its beginnings as a fur-trading post, Albany has been a center for world trade, finance and government and a pivotal force in the development of the state and the nation. For information, call (518) 434-0405 or 1-800-258-3582. <http://albany.org/>

**Buffalo** - Since the mid-19th century, when Buffalo was booming with lake, canal, and rail traffic, the city has supported a broad range of entertainment and culture, a tradition that lives on in the city and its Theatre District. For information, call (716) 852-2356 or 1-800-BUFFALO. <http://www.buffalocvb.org/>

**Concord Grape Belt** - Fruitful vineyards, hospitable communities, breathtaking vistas, and healthy flavors abound in the 50 miles of shoreline that form the world’s oldest and largest Concord grape-growing region. <http://www.concordgrape-belt.org>

**Harbor Park (New York City)** - Historic waterfront sites around New York’s harbor tell the epic story of growth from a colonial trading post to the largest seaport and immigration destination in the world. For information, call (212) 344-3491. <http://thebattery.org/>

**The Heights (New York City)** - The site of Revolutionary War activity and home to waves of immigrants, the Heights Heritage Area of northern Manhattan includes bustling avenues and parkways, miles of

waterfront, acres of parks, and landmarks as varied as the Little Red Lighthouse and Hamilton Grange. For information, call (212) 694-8824. <http://myharlem.org/>

**Kingston** - The city of Kingston began in the narrow streets and stone houses of the colonial Stockade District, which served as the first capital of New York State, and grew to include the bustling Hudson River port of Rondout. For information, call (800) 331-1518. For Rondout, call (845) 331-7517. For Uptown, call (845) 331-9506. <http://ci.kingston.ny.us/>

**Mohawk Valley Heritage Corridor** - The dramatic landscapes of the eight Mohawk Valley counties are layered with centuries of history, from Iroquois encounters with fur-traders and missionaries, through European settlement, colonial wars, the Erie Canal and industrialization. For information, call (518) 673-1045. <http://mvhcc.org/>

**North Shore (Long Island)** - From the historic mansions of Great Neck to the farm stands of Orient, from sunny vineyards and well-worn fishing piers to luxurious Gold Coast estates, Long Island’s north shore abounds in attractions. For more information call (516) 922-8605. <http://linorthshoreheritagearea.com/>

**Ossining** - In this historic Hudson River village, unique landmarks like the Old Croton Aqueduct and Sing Sing Prison display state-of-the-art advances in 19th-century civil and social engineering. For information, call (914) 941-3189. <http://www.hudsonriver.com/rivertowns/ossining.htm>

**RiverSpark (Hudson-Mohawk)** - At the confluence of two great rivers, natural resources and cutting-edge technology were harnessed in the

region’s transformation from an agrarian to an industrialized society. This heritage is visible today in the landscapes and streetscapes of the RiverSpark communities: Troy, Cohoes, Colonie, Green Island, Troy, Waterford and Watervliet. For information, call (518) 270-8667 or (518) 237-7999. <http://riverspark.org/>

**Rochester - High Falls (Natural Environment)** - Where millraces and waterwheels once captured the power of the mighty Genesee River, Rochester’s High Falls area now welcomes visitors day and night to revitalized factories, dramatic archaeological sites, and magnificent scenery. For information, call (585) 325-2030. <http://centerathighfalls.org/>

**Sackets Harbor** - The War of 1812 Battlefield, historic Madison Barracks, and quaint village streets bear witness to Sackets Harbor’s role as a military stronghold defending the northern border during our country’s turbulent first centuries. For information, call (315) 646-2321. <http://sacketsharborny.com/home.html>

**Saratoga Springs** - “Queen of the Spas” in the 19th-century, Saratoga still attracts visitors to its bubbling mineral springs, racetracks, Victorian architecture, vibrant downtown and flourishing cultural life. For information, call (518) 587-3241. <http://www.saratogaturism.com/vcstuff/vchome.html>

**Schenectady** - “The Electric City” grew from a 17th-century stockaded village into the modern industrial giant that is home to General Electric, the American Locomotive Co, Union College, and numerous historic neighborhoods. For information, call (518) 382-5147, ext. 5128. <http://www.sayschenectady.org/>

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Seneca Falls - The righteous spirit of reform earned Seneca Falls a place in world history as the setting of the first Women's Rights Convention in 1848. Today, the historic mill town features a classic main street, canal promenade, and many mementos of women's activism. For information, call (315)568-2703. <http://www.senecafalls.com/history-heritage.php>

Susquehanna - Antique carousels, factories, ethnic neighborhoods and gold-domed churches tell the story of the thousands of immigrants drawn to the industries of Binghamton, Endicott, and Johnson City in the Susquehanna's "Valley of Opportunity". For information, call Binghamton (607) 772-0660, ext.255 or Endicott (607) 757-5355. [http://www.roberston.org/visitors/binghamton\\_visitor\\_center.asp](http://www.roberston.org/visitors/binghamton_visitor_center.asp) <http://www.endicottny.com/Visitor%20Center/visitorcenter.htm>

Syracuse - Salt, a precious natural resource, first put Syracuse on the map, but it was the Erie Canal that transformed the city into a modern center of business and capital. For information, call (315) 471-0593. <http://eriecanalmuseum.org/urban.asp>

Western Erie Canal Heritage Corridor - The Erie Canal brought pioneers, the fervor of social reform, and industrial progress to the fertile landscapes of Western New York, a legacy that survives in the fascinating cities, towns and sprawling farms that line today's canal. For more information call (585) 546-7029. <http://eriecanalheritage.com>

Whitehall - Whitehall's harbors, museums, parks, and charming main street evoke the village's history as home base for Benedict Arnold's Lake Champlain fleet during the American Revolution and as a prosperous port on the Champlain

Canal. For information, call (518) 499-1155 or (518) 499-0716. <http://www.museumsusa.org/museums/info/1155278>

## Hudson and Champlain Quadricentennial and Fulton Bicentennial

2009 will be a watershed year, marking the 400<sup>th</sup> anniversary of Hudson and Champlain's voyages along the river and lake that bear their names and the 200<sup>th</sup> anniversary of Fulton's successful steamboat voyage and establishment of steam commerce on the Hudson River. Hudson's and Champlain's voyages laid the groundwork for Dutch settlement of the Hudson Valley and French settlement of the Champlain Valley and Canada. Soon this region would become the center of a trade network linking the New World with the old. New traditions of freedom were forged here. And countless immigrants first set foot on these shores pursuing the American dream. Nearly 200 years later, Fulton's journey would strengthen the region's ties to the world, while heralding a new era of innovation which distinguishes the Northeast to this day.

A Hudson-Fulton-Champlain Quadricentennial Commission was formed to engage the public as well as civic, education, environmental, cultural and heritage organizations to develop and support related plans and activities in commemorating the events. The success of the Quadricentennial commemoration relies on a coordinated effort among the members of the Commission, federal partners, state agencies, and local governments, private corporations, non-profit corporations, similar commissions such as the Lake Champlain Quadricentennial Commission and the Quebec 400<sup>th</sup>, international partners and the citizens of New York State.

The signature theme of the commemoration will be Exploration and Connection in the broadest sense to denote the exploration of Champlain and Hudson, European settlement in the New World, the ongoing exploration that has characterized New York State and America in areas including the opening of the west, technology such as Fulton's steamboat, arts, multiculturalism, education, environment, and globalism among many other dimensions of society.

## Boating Safety Programs

With the number of boaters increasing, there is a need to continue boater safety, education and enforcement programs to ensure the enjoyment of all boaters on New York State waters. OPRHP is the designated agency responsible for ensuring the coordination of the State's boating safety and enforcement programs.

The Marine Services Bureau is chiefly responsible for the Agency's many boating safety initiatives as it also serves as the Office of the State Boating Law Administrator. As such, Marine Services offers an educational program for young boaters and recently implemented the new mandatory education program for personal watercraft operators. Each year nearly 20,000 individuals take the program which, in many cases, is offered free of charge. The course consists of an 8-hour nationally recognized program of instruction, which includes a proctored examination.

Marine Services also fulfills a number of other diverse safety initiatives such as public vessel safety and operator licensing. New York is one of a small number of states that currently requires the annual inspection of any vessel carrying passengers for hire. In fact, the

State has a long history of this safety requirement dating back to the early 1900s. In addition, it is responsible for examining and licensing anyone who may be involved in the operation of these vessels. Currently there are approximately 350 such vessels operating upon the State's interior waters with some 800 licensed individuals who may operate them.

Marine Services also has responsibility for the specialized training requirements of the marine law enforcement community throughout the State. Each year Marine Services offers extensive training in Basic Marine Law Enforcement, Vessel Operator Training, Impaired Boater Recognition, Noise Level Enforcement, and Personal Watercraft Operation. Annually between 150 and 200 officers statewide take advantage of this training.

Marine Services is also charged with the issuance of marine regatta and floating object permits on the State's interior waters. This is just one of the many ways boating safety is ensured. In addition, Marine Services is responsible for collecting all recreational boating accident data, compiling it into usable information, and disseminating it to the United State Coast Guard. Each year this data is presented in the Recreational Boating Report. Recent trends noted in the data indicate that boating in New York is now the safest it has been in the past 30 years.

Marine Services also administers the State's Hull Identification Program. Under this program any vessel that can not authenticate its manufacturer's hull identification number must submit to Marine Services for an inspection and issuance of a new number. This simple action has made great strides in ridding the State's registration process of many vessels suspected of being fraudulently registered.

Marine Services has a number of public information brochures,

informational stickers and other such promotions, like the loaner personal flotation device program, which is directed at making recreational boating safer within the Empire State.

## **Local Financial Assistance Program for Marine Enforcement**

Marine Services administers sections 79 (a) and (b) of the New York State Navigation Law whereby the Agency provides financial assistance to those eligible governmental entities, which enforce the provisions of the navigation law. This financial assistance now exceeds \$3 million dollars annually and presently reimburses 75% of the participants permitted costs for said enforcement.

This financial assistance does however support and encourage greater local marine enforcement during the very active boating months of the summer. Allowable expenses include payroll, boats, and related marine equipment necessary to fulfill the marine enforcement mission.

All applications are reviewed by a Marine Service Representatives who audit and certify the claims.

## **Recommendations**

### *Goal*

Participate in programs and develop partnerships with other federal, state and local governments, agencies and interest groups to improve public access opportunities to water resources.

### *Actions*

- Continue the use of the Open Space Plan and support the continued funding of the EPF for acquisition projects statewide.
- Continue participation in the Great Lakes Programs to improve water quality and increase opportunities

for recreational use on the Great Lakes.

- Participate in the implementation of the Long Island Sound Coastal Management Program and DEC's Marine Access Plan to improve public access opportunities to the marine coastline and optimize recreational fishing opportunities.
- Participate in the Lake Champlain Basin Program to help manage the lake's shorelines and its tributaries for a diversity of recreational uses while protecting its natural and cultural resources.
- Continue the partnership with the Hudson River Estuary Program and assist in the program's efforts to increase public access to the Hudson River.
- Review and when necessary participate in hydroelectric power project re-licensing processes to insure recreational access within project boundaries.

### *Goal*

Enhance recreational boating by making it safer and more enjoyable.

### *Actions*

- Safeguard the public through enforcement programs funded by the Federal Boating Safety Grant and State Aid programs.
- Educate the public on boating safety:
  - Continue the mandatory boating safety education programs for personal watercraft operators and young boaters.
  - Encourage voluntary safety programs for adults.
- Continue training of the marine law enforcement community through the Basic Marine Law Enforcement, Vessel Operator Training, Impaired Boater Recognition, Noise Level Enforcement, and Personal Watercraft Operation courses.
- Continue to collect, compile and report recreational boating accident data to the U.S. Coast Guard.

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- Continue the boat registration and marine regatta permitting system.
- Continue the Vessel Theft and Hull Identification Program.
- Continue dissemination of information to the public through brochures, informational stickers, and the loaner personal flotation device program.
- Support boat registration fee increases to provide sufficient resources for boating safety and other recreational boating programs.

# Sports and Athletics

Sports and athletic competition help keep citizens, both young and old, physically active and provide those not participating an invigorating means of entertainment. OPRHP programs and facilities vary from outdoor activities such as road races, triathlons, golf tournaments, softball and baseball tournaments, bicycle races, swimming and diving competitions, speed skating exhibitions, orienteering and cross country ski races, to such indoor activities as hockey tournaments, "Midnight Madness" basketball tournaments and swimming instruction. Many of these programs are cosponsored by the sanctioning bodies of the various sports and athletic activities.

The goal of the sports and athletic programs is to provide a broad variety of organized opportunities for recreation and competition at a variety of levels complementary with local or regional efforts.

## Empire State Games

The Empire State Games began in 1978. The games are a form of competitive sports and are based on the Olympic model with preliminary qualifiers available at three levels. The scholastic division is designed for young

people who are still in high school. The open division is for athletes generally of college age. Masters competition is available for age groups ranging from 24 to 85. Approximately 40,000 athletes compete yearly in preliminary competitions which are held in six regions statewide. Finalists enter a week long contest held at a chosen city in the state. Syracuse, Buffalo, Ithaca, Albany, Rochester, Long Island, Binghamton, both Mohawk and the Hudson Valley, and Westchester County have been chosen as sites in past years. While OPRHP provides professional management, organization and direction, much of the conduct of the Empire State Games is in the hands of thousands of volunteers, including coaches, officials and a medical team. Six thousand finalists compete in 28 sports ranging from archery to wrestling each summer; and 1,400 athletes participate in 11 winter events, including Nordic skiing, ski jumping and bobsledding. Twenty-two Empire State Winter Games athletes represented the United States at the 2006 Winter Olympics in Torino. Two dozen more Games athletes were part of the US team at the Summer Olympics in Athens.

The Games have been a benefit to many areas of the amateur sports world and to programs in other states. During the games, productive links with the private sector have helped funding, support and promotion. The "state games" concept, which was started in New York, has now spread across America. Forty-two states currently have programs and a State Games of America event was developed. The United States Olympic Committee has endorsed the State Games concept as a valuable developmental program for the Olympics and international competition. The Empire State Games has made computer systems, data, and experience available to every state which has developed its own program. It has also assisted the Pan Am Games.

The main goal of this program is to provide opportunities for New Yorkers whose recreational focus is competitive sports.

## Empire State Senior Games

The Empire State Senior Games, which began in 1983, is a program of fitness and sports competition for New Yorkers 50 years of age and older. This six-day long program offers more than 40 competitive, recreational and drop-in activities, for which awards are given. Instructional clinics, exhibits of relevant information and social activities are also included. Competition is mixed with fun and friendship, providing something for people of all interests and abilities.

The games are one of the largest of its kind in the country and serve as New York State's qualifying event for the U.S. National Senior Sports Classic. The games have also fostered the development of a number of local Senior Games programs throughout the State.

The games are assisted in cooperation with several other state agencies and are supported in large part by participant fees and corporate sponsorships.

The goal of this program is to encourage fitness and recreation participation for older New Yorkers.

## Empire State Games for the Physically Challenged

The Empire State Games for the Physically Challenged, which began in 1985, is a program of fitness and sports competition for physically challenged youngsters. The games serve to promote confidence and encourage participation in adapted sports by individuals 5-21 years of age, who have cerebral palsy or spinal cord injuries, who are blind, deaf or amputees, or "les autres."

The program includes regional competitions in Long Island and Brockport, as well as a fitness “fun day” in Syracuse. It also encourages the development of local programs and has distributed a “Training Manual on Adapted Sports.”

The goal of this program is to provide opportunities for athletic competition and to encourage participation in fitness workshops for young people with physical disabilities throughout the State of New York.

# Department of Environmental Conservation

## Wetlands

Wetlands are transitional areas between aquatic and upland communities, and often have some of the qualities of both. Wetlands also are where the groundwater occurs near or at the surface, saturating the soil and the root zone of the plants that grow there.

Some wetlands occur where the groundwater emerges at the surface of the ground, usually on a slope; these commonly are known as hillside seeps or slope wetlands. Probably the most recognized wetland is where surface water, such as a pond, lake or stream, slopes up to land; these are known as fringe wetlands. The other common wetland type is where a depression in the land reaches down into the groundwater; these are the famous prairie potholes of the American Midwest, and the vegetated ponds on Long Island. Finally, wetlands can occur where surface water is trapped in shallow depressions by soil that will not allow the water to seep downwards. These wetlands are common on clay soils in the Lake Plains of western New York.

For the purposes of this comprehensive plan, the broadest concept of wetland is used. The plan addresses all wetlands, not just those protected by certain regulatory programs.

- Freshwater Wetlands are those areas of land and water that support a preponderance of hydrophytic vegetation that is at a competitive

advantage because of the presence of wetlands hydrology or hydric soils. Freshwater wetlands commonly include marshes, swamps, bogs and fens.

- Tidal Wetlands are those areas that border on or lie beneath tidal waters, including those areas now or formerly connected to tidal water, and those areas subject to tides and upon which grow tidal hydrophytic vegetation.

New York State has an active and comprehensive wetlands conservation program. As stated in the Freshwater Wetlands Act (Article 24 of the Environmental Conservation Law): "It is the public policy in the State of New York to preserve, protect and conserve wetlands and the benefits derived therefrom, to prevent the despoliation and destruction of wetlands, and to regulate use and development of such wetlands to secure the natural benefits of wetlands, consistent with the general welfare and beneficial economic, social and agricultural development of the State." In addition, the Tidal Wetlands Act (Article 25 of the Environmental Conservation Law) states: "It is declared to be the public policy of this State to preserve and protect tidal wetland, and to prevent their despoliation and destruction, giving due consideration to the reasonable economic and social development of the State." These policies articulate the balanced approach New York takes in its efforts to conserve its wetlands resources.

New York recognizes that wetlands provide a multitude of functions and benefits for the people of the State and has developed a multifaceted program to protect and manage that resource.

In New York, protection of wetland is a priority.

### Values of Wetlands

Wetlands perform numerous functions, such as removing excess nutrients

from the water that flows through them. These functions in turn provide benefits to the environment and the citizens of the State. For example, the benefit derived from nutrient removal is improved or maintained water quality. This in turn is valued by society for a number of reasons such as clean drinking water, safe recreation, and secure fish and wildlife habitat.

Following are some of the functions and benefits that are important in New York State:

- Flood and Storm-water Control: During storms and periods of heavy rain or spring snow melt, wetlands serve as natural reservoirs for excess water, storing and slowing the movement of water through the watershed. Filling in wetlands often results in increased flooding, both locally and far downstream.
- Erosion and Sedimentation Control: Wetlands vegetation helps to filter sediment by decreasing water velocity. Suspended particles settle in the wetland and do not enter navigational channels, lakes and reservoirs. In much the same manner, wetlands also help prevent erosion of shorelines and valuable agricultural land by serving as buffers between wave or stream activity and adjacent lands.
- Water Quality Maintenance: Microorganisms in wetlands break down and use nutrients and can significantly reduce levels of natural and human-induced pollution in water as it filters through the wetland. Chemical processes in the soil also immobilize chemicals and heavy metals. Water leaving a wetland is frequently cleaner than water entering the wetland. Wetlands also protect fresh groundwater supplies in coastal areas by preventing saltwater intrusion.
- Recharge of Groundwater Supplies: Wetlands sometimes are helpful in recharging groundwater. This function is especially important where

groundwater is the sole-source of drinking water or constitutes the major source of usable water.

- Discharge of Groundwater: Wetlands frequently serve as groundwater discharge sites, thereby maintaining the quality and quantity of surface water supplies.
- Fish and Wildlife Habitat: Many species of fish and wildlife depend on wetlands for critical parts of their life cycle. By providing breeding, nesting, and feeding grounds and cover, wetlands are recognized as one of the most valuable habitats for wildlife. Young fish find food and shelter in the protective vegetation. Many species of endangered, threatened or special concern fish and wildlife depend on wetlands. Tidal wetlands are vital to the continued health of vertebrate and invertebrate species of the waters of State's marine district. Over two-thirds of the fish, shellfish and crustaceans harvested in the State (including both commercial and recreational harvest) are dependent on tidal wetlands for some portion of their life cycles.
- Biological Diversity: There is increasingly concern about local, regional and global biological diversity. Wetlands are important components of the landscape and contribute significantly to the State's overall biological diversity. Wetlands are habitat for many rare and indigenous species of plants and animals and many in themselves represent unique natural communities.
- Nutrient Production and Cycling: Wetlands are one of the most ecologically productive systems on earth, converting sunlight and nutrients into food sources for animals. Some tidal wetlands exceed even tropical rain forests in energy conversion. Wetlands also serve as filters for sediment and organic and chemical nutrients. These components are recycled in wetlands, where the nutrients are broken

down and reentered into the food web.

- Recreation: Hiking, bird watching, hunting, fishing, trapping, boating, photography and camping are some of the recreational uses provided by wetlands. Over 12 million New Yorkers annually participate in these outdoor activities. In a 1991 report to the Legislature on the economic return from hunting, fishing and other uses of wildlife, it was estimated that these activities had a total annual worth of more than \$5 million.
- Open Space: In an increasingly developed landscape, open space is gradually more important for maintaining the quality of life in our communities and many public policies support the protection of open space. Wetlands are extremely important components of open space because they are multi-beneficial and are often the only undeveloped areas along crowded river fronts and coastal regions or in urbanized areas.
- Educational and Scientific Research: Wetlands provide readily accessible outdoor biophysical laboratories, living classrooms and vast training and education resources.

### **Program Implementation and Coordination: Who is involved in Wetlands Planning and Protection?**

In New York, the DEC has the lead responsibility for wetland conservation. Within DEC, several organizational units participate in implementing New York's wetlands protection program. Primary responsibility resides in the Division of Fish, Wildlife and Marine Resources which has the lead with both tidal and freshwater wetlands. The Division of Lands and Forests has the lead for acquisition activities. The Division of Environmental Permits processes regulatory permits. The Division of Law

Enforcement and Legal Affairs support enforcement efforts. The Division of Water administers the Clean Water Act directed or funded programs that afford additional water quality programs from which wetlands benefit.

In addition, the Adirondack Park Agency (APA) administers the Article 24 permitting program in the Adirondack Park and administers land use regulations as they relate to wetlands. They have undertaken sophisticated GIS approaches to mapping wetlands in a watershed approach, which provides important tools for planning and protection.

There are additional stakeholders involved with wetlands conservation in New York State. Following is a listing of those involved players, and a brief explanation of their roles.

### **State Agencies**

New York State Department of State (DOS): New York State Department of State (DOS) administers the coastal management program, including coastal consistency reviews on federal projects, for which wetlands conservation is a consideration. DOS also conducts and supports coastal planning efforts through the preparation of LWRPs. In recent years, DOS has taken a strong role in coastal wetlands restoration.

New York State Office of Parks, Recreation, and Historic Preservation (OPRHP): has lead responsibility for developing the State Comprehensive Outdoor Recreation Plan. In cooperation with DEC, OPRHP also jointly produced and updated the State Open Space Conservation Plan. As a significant landowner, OPRHP conserves and manages wetlands on State parklands and has an important role in biodiversity conservation on their public lands.

## Statewide Programs

New York Attorney General's Office: As the State's legal representative, the New York Attorney General's Office litigates cases in both federal and state courts to ensure that wetlands are afforded the protections available under law. The Attorney General's Office also advocates for wetlands protection in consultation with federal, state and local agencies, and by advancing progressive positions in various legislative and administrative forums.

New York State Department of Transportation (DOT): affects wetlands through design and implementation of highway construction and maintenance. DOT has an environmental benefits initiative wherein they undertake positive environmental projects in conjunction with ongoing highway construction and maintenance projects. They have constructed, restored, and provided access to wetlands as part of their award-winning environmental benefit projects.

New York State Office of General Services (OGS): administers much of the State's surplus lands and all lands under water not explicitly deeded to private entities.

New York State Canal Corporation: implements the Canal Recreationway Plan and owns, operates and maintains the New York State Canal System, and leads the state effort to develop the Canalway Trail.

## Federal Agencies

U.S. Army Corps of Engineers (COE): administers Section 404 of the Clean Water Act, which regulates the discharge of dredged and fill spoil material into waters of the U.S., including most wetlands. In recent years, the COE has become actively involved in restoration of the nation's waters and wetlands,

including efforts on the Hudson River, upper Susquehanna, and Niagara Rivers.

U.S. Environmental Protection Agency (EPA): oversees administration of the Section 404 program. EPA supports state and local wetlands programs through funding a variety of grants that support wetlands research, restoration, education and outreach efforts, watershed planning, monitoring, and water quality maintenance.

U.S. Fish and Wildlife Service (USFWS): administers the national wildlife refuge system and the federal endangered species act, including activities to protect critical habitat. DEC and USFWS, along with other partners, cooperatively implement the North American Waterfowl Management Plan, which includes a variety of acquisition, management, and restoration activities. USFWS also supports regulatory reviews under Section 404. Between 1990 and 2003, the USFWS Partners for Fish and Wildlife Program restored over 12,200 acres of wetlands and 46 miles of riparian habitat on over 1,179 sites through technical assistance and direct restoration. The USFWS also cooperates with the Natural Resources Conservation Service to restore wetlands and other habitats under the conservation provisions of the Farm Security Act. The USFWS maps wetlands under the National Wetlands Inventory (NWI); most of New York now has digital maps and efforts were recently undertaken to update early NWI maps in the coastal Great Lakes region.

U.S.D.A. Natural Resources Conservation Service (NRCS): along with the Farm Services Agency, administers the conservation provisions of the Food Security Act (Farm Bill). Between 1992 and 2005, the NRCS restored over

47,000 acres of wetlands on 1,248 sites through the Wetlands Reserve Program. Through implementation of the Environmental Quality Incentives Program, NRCS has helped reduce agricultural nutrient runoff to surface waters and wetlands, thereby greatly improving water quality.

U.S.D.A. Farm Services Agency: administers certain provisions of the Food Security Act, especially the Conservation Reserve Program (CRP). The latest iterations of this program, the Continuous Sign-Up CRP (CCRP) and the Enhanced CRP (CREP) have become the primary means of establishing riparian buffers in the State.

U.S.D.A. Farmer's Home Administration: may place easements on its inventory of repossessed farmland and may forgive loans if the borrower places easements on wetlands.

National Marine Fisheries Service (NMFS): coordinates and provides comments on permits affecting coastal wetlands. In more recent years, NMFS has participated in coastal wetlands restoration efforts.

Federal Highway Administration (FHWA): supports efforts of state transportation agencies and implements ISTEA as it relates to wetlands and mitigation. FHWA provided a \$500,000 planning grant to NYS DOT and DEC to update and digitize National Wetlands Inventory maps to improve capacity for planning to protect wetlands and other aquatic resources.

## Local Government

Because most land use decisions are made at the local level, local governments are very important stakeholders in wetlands conservation. There are approximately 1645 local governments in the State at the county, town, city and village levels. Their involvement in conservation efforts and their effects on wetlands vary greatly across the State.

At the local level, the following organizational units may be involved with wetlands:

- planning departments
- tax assessors
- zoning boards and zoning boards of appeals
- soil and water conservation districts
- county cooperative extension
- environmental management councils
- town conservation advisory commissions (or boards)

New York is actively involved with and supports local efforts to encourage anti-sprawl, “smart growth” development in the State with the intent to revitalize urban areas, conserve natural resources (including wetlands) and promote quality of life.

## **Other Stakeholders**

**Conservation Organizations:** Numerous not-for-profit, nongovernmental conservation organizations exist. Some were formed specifically to address wetlands issues; others include wetlands conservation as part of their mission. It is estimated that over 50 nongovernmental organizations participate in wetlands conservation programs to some extent. Key participants include Ducks Unlimited, The Nature Conservancy, and local chapters of the Sierra Club and the National Audubon Society.

**Academic Institutions:** Many academic institutions in the State have faculty teaching about or conducting research on wetlands. Key institutions include Cornell University, State University of New York (SUNY)-College of Environmental Science and Forestry at Syracuse, and SUNY at Stony Brook. DEC recently entered into cooperative agreements with a number of SUNY colleges to use college interns to assist with wetlands de-

lineations, compliance inspections, and mapping.

**Business Sector:** Many businesses own land on which wetlands occur, or affect wetlands as part of their normal operations. The business sector can fund or conduct activities that have a positive affect on wetlands, even outside of requirements or normal operation.

**Landowners:** Private individual landowners own the vast majority of wetlands in the State. Their activities can have a significant impact on the quality or quantity of wetlands in the State. With the advent of federal and state restoration efforts, many landowners have willingly volunteered to restore wetlands on their property and become good stewards of the resource.

**Other Citizens:** All citizens of the State benefit from wetlands protection. Many people support conservation organizations because of their support for wetlands. Citizens also provide political support or comments for wetlands programs and for site-specific activities, such as permits or acquisitions.

## **Protection Strategies**

There is a wide variety of programs that affect wetlands in New York. Programs are aggregated according to their basic approach into one of seven “mechanisms”:

## **Acquisition**

Acquisition can include a wide variety of protection strategies. It most frequently is associated with purchase of all rights and title to the land — full fee title acquisition. It also can include acquisition of only some of the rights to the land, usually the right to develop the land, which leaves the property in its undeveloped, natural

state. Acquisition also includes leases, conservation easements, donations, bargain sales, and transfers of development rights. It is the variety of means by which to guarantee protection or control of all or some rights to the use of the land.

New York has a proud history of wetlands acquisition. Over 12,000 acres of freshwater wetlands were purchased under the 1972 and 1986 Acquisition Bond Acts and through other state and federal funding sources. DEC also acquired 3,000 acres of tidal wetlands and associated inland buffers, and it is the goal to put all vegetated tidal wetlands into public ownership. In 1990, a third bond act failed to pass, but prompted development of the State Open Space Conservation Plan. The OSP, was discussed earlier in this chapter, is now the major guiding document for all open space acquisition efforts in the State, including wetlands.

## **Regulation**

Regulation is governmental oversight and control of certain actions that may affect wetlands. It generally entails a review and authorization by a governmental agency before an activity can be undertaken. It includes laws, rules and regulations, plus executive orders.

Wetlands are regulated at three levels in New York. Tidal wetlands are protected under the 1973 Tidal Wetlands Act (Article 25 of the Environmental Conservation Law). The 1975 Freshwater Wetlands Act (Article 24 of the Environmental Conservation Law) regulates wetlands 12.4 acres (5 hectares) in size or larger, and certain smaller wetlands of unusual local importance. Under both programs, wetlands are mapped, and a regulated buffer zone is also protected. Wetlands are also regulated under Section 404 of the federal Clean Water Act, which is implemented by the COE. The 404 program regulates the discharge of dredged or fill materials into waters of

## Statewide Programs

the United States, including wetlands. A limited number of local governments in the State also have local ordinances to protect wetlands. Some regulate wetlands explicitly, others through land use ordinances that target water resources. Some regulate only those wetlands not protected by State law; others regulate irrespective of State law. Nonetheless, not all wetlands are protected from all negative impacts and losses continue to occur.

## Planning

Planning is the proactive process by which to set a vision for a desired future state and to prepare strategies for achieving that future. It analyzes needs, sets goals and establishes ways for meeting those needs. It is based on both the past and present, but identifies the desired future state. Coordinated, continuous planning should lead to better decision-making.

To be most effective, wetlands protection should be integrated into other land use protection efforts, and not addressed separately. DEC has integrated wetlands into other agency plans, such as the OSP and the Great Lakes Plan, and into other state agency plans, such as this SCORP and the Coastal Resources Plan.

## Restoration, Creation and Management

Restoration, creation and management, in general, include hands-on actions taken to manipulate a wetland to create, restore, enhance or protect wetland functions and benefits. Restoration and creation add to the existing resource base, while management actions improve or maintain the quality of existing wetlands.

Restoration means reclaiming a degraded wetland to bring back one or more functions or characteristics that have been partially or completely lost by such actions as filling or draining.

Creation means making a new wetland by flooding or excavating upland.

Management includes:

- Enhancement, which involves altering or manipulating an existing functional wetland to increase selected functions; it often focuses on habitat manipulation for particular species.
- Best management practices, or BMPs, which are used to avoid negative impacts to wetlands while undertaking an unrelated activity such as timber harvest.
- Stewardship, which involves applying a conservation ethic in relating to the land. This often entails more passive management, like leaving a buffer area around a wetland in a pasture or a cultivated field.

New York has a long history of wetlands management. Traditionally they have been focused on management of State-owned lands. In the late 1940s, efforts began on private lands to cooperatively manage for habitat, and over 1000 small marshes were built for waterfowl. Restoration and enhancement efforts on municipally owned lands were funded by the 1972 Environmental Quality Bond Act (EQBA).

More recently, efforts to restore and manage wetlands have grown dramatically. Under the North American Waterfowl Management Plan, DEC and the FWS are cooperating with landowners and other organizations to restore drained wetlands on agricultural land in the Northern Montezuma Focus Area. Other restoration efforts are underway in the Lake Champlain basin, the Hudson River, Great Lakes basin, Upper Susquehanna, Upper Chemung, and the Niagara River. There are now programs specifically targeted at wetland restoration, including the NRCS's Wetlands Reserve Program. Other programs include wetlands restoration among the goals and funded projects, including New York's Bond Act, and the Hudson River Estuarine Management Plan. It is

expected that wetlands restoration will continue to be a focus of resources and attention in the upcoming years.

## Incentives and Disincentives

Incentives and disincentives create voluntary cooperation in conservation. Incentives are proactive, non-regulatory programs used to encourage voluntary protection. Disincentives are programs that discourage alteration of or impacts to wetlands because they result in the loss of a benefit, such as eligibility for federal funding. Incentives and disincentives usually are financial, but may include recognition, assistance, or good (or bad) public relations.

Incentives and disincentives are highly regarded, but infrequently used. They are generally endorsed in most fora and discussions on improving wetlands conservation. However, since they usually involve financial motivation, incentive programs are difficult to enact or implement. In New York, most incentives are delivered through the Food Security Act conservation programs where landowners are paid an annual rental payment or long-term easement payment for participating in a conservation program, such as the Wetlands Reserve Program.

## Research and Inventories

Research and Inventories are the means by which information is gathered to answer pertinent questions. It identifies threats, develops remediation and mitigation techniques, develops details on functions and values of wetlands, and explores means to protect and augment those functions. Research includes traditional data gathering, for empirical research or to answer management or policy questions. It also includes mapping and inventory work, status and trends studies, and monitoring of wetlands.

To better understand the values of wetlands and to manage them better, the State occasionally supports research efforts. This has been augmented since 1990 when EPA began to make State Wetlands Development grants available to the states to increase capacity for wetlands protection. APA, DEC, and other grantees have used these grants to undertake an array of wetlands studies and inventories.

## **Education, Outreach and Technical Assistance**

Education, outreach and technical assistance are the means by which information is provided to users to make decisions, affect behavior and create greater awareness. Education generally is focused on a broader segment of the public and most often has a broader theme, such as the value of wetlands. Outreach efforts are more specific, targeted at an affected group, such as landowners, about a specific topic, such as how to get a permit. Finally, technical assistance is usually very hands-on and technical in nature, such as how to restore a wetland on converted cropland.

Most mechanisms are interconnected by many common threads, and do not operate independently. For example, when we acquire wetlands, we must then manage them. Education is important to get support and involvement for other mechanisms. Technical assistance provides support to landowners to manage their own wetlands. Inventory data, available through a geographic information system, can be used by local governments to plan for wetlands protection. This interdependency will be evident in the discussions of the mechanisms.

Programs are best when developed and implemented in cooperation with all the interested and affected parties. Partnership approaches to

implementing wetland programs have increased dramatically in recent years and have been responsible for improved conservation.

## **Effectiveness of Wetlands Protection Mechanisms**

There are no mechanisms in place to directly measure the effectiveness of any conservation programs. DEC conducted a status and trends study in the late 1990s to evaluate changes in the wetlands resource between the mid-1980s and the mid-1990s, but this only indirectly assesses the effectiveness of any programs such as regulation or acquisition. Greater emphasis should be placed on assessing the effectiveness of conservation programs.

## **Existing Wetland Resources: Inventories**

It is estimated that New York has 2.4 million acres of freshwater wetlands and about 25,000 acres of vegetated tidal wetlands. They encompass about eight percent of the land of New York. Wetland types include marshes; hardwood, coniferous and shrub swamps, wet meadows; bogs and fens; coastal marshes; and wetland open water. About 74% of all wetlands occur in the Lake Plains and Adirondack ecological regions, although these areas encompass only about 47% of the State's landmass. Statewide, approximately 80% of the wetlands are larger than 12.4 acres, the threshold for protection in the State Freshwater Wetlands Act. Forested wetlands are the most common, accounting for almost 70% of all wetlands.

There are a number of wetland inventories available in New York.

The National Wetland Inventory (NWI) maps are prepared by the USFWS for management purposes. They show all map-able units and include cover

type classifications. There are now NWI maps available for almost all areas of the state outside the Adirondack Park. Maps have been digitized where they exist, and can be viewed on the web at <http://wetlands.fws.gov>. Using a planning grant from the FHWA, maps for the Great Lakes coastal area were updated and sections of the Capital District, where maps did not exist, were completed.

The Tidal Wetlands Act requires that all tidal wetlands be mapped. In 1991, the Division of Marine Resources initiated a program to re-inventory the entire resource continually on a five year cycle. The current inventory shows some 25,000 acres of vegetated tidal wetlands in the marine district. The acreage is classified as follows:

- Coastal fresh marsh — the upper tidal limits of riverine systems. This category accounts for 4.8 percent of the vegetated tidal wetlands in the State.
- Intertidal marsh — the area between average high and low tidal elevations. It includes 60.8 percent of the vegetated wetlands.
- High marsh — the uppermost tidal wetland zone. It includes 31.6 percent of the vegetated wetlands.
- Formerly connected — areas where tidal flow has been restricted by either human or natural causes. It includes 4.8 percent of vegetated wetlands.

The Freshwater Wetlands Act also requires that jurisdictional wetlands be mapped. All counties outside the Adirondack Park have been mapped at the scale of 1:24000 and account for 1.2 million acres of wetlands. Inside the Park, Hamilton, Essex, Warren, and Clinton Counties have been finalized. DEC continually amends maps statewide, as resources are available, to keep them updated. Major amendments to wetlands in the New York City drinking water reservoir watersheds were concluded in 2006, adding 7,736 acres of wetlands to the maps. Maps are

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available for inspection at all DEC offices and at all local government clerks' offices. Maps have been digitized, and as of fall 2007, the data will be available on DEC's website for use by the public. Digital data on DEC-mapped wetlands is available for those with GIS capabilities through the Cornell University Geospatial Information Repository (CUGIR) at <http://cugir.mannlib.cornell.edu/>.

The APA has conducted intensive wetlands mapping on a watershed basis in the Park. The Upper Hudson, Oswegatchie/Black and St. Regis watersheds are all completed and are available digitally from the APA. The Mohawk and Ausable/Boquet River watersheds will be completed soon. Mapping in the remaining Saranac River watershed and Lake George basin will begin in the winter of 2007.

Finally, a number of local governments have mapped their wetlands using varying scales, definitions, and methodologies to meet local needs.

New York does not specifically classify wetlands as rare, threatened, or functionally diverse (as per federal MARO Technical Assistance Guide for Meeting the Requirements of the Emergency Wetlands Resources Act). Under Article 24, freshwater wetlands are classified according to their relative functions and values. Wetlands are classified into one of four categories, from Class I, which provide the most important functions or are functionally diverse, to Class IV, which provides fewer benefits. Currently 26 percent of mapped wetlands are Class I, 54 percent are Class II, 17 percent are Class III, and two percent are Class IV. Tidal wetlands are classified only on the basis of their vegetated characteristics; all tidal wetlands in New York are considered critical resources of the State.

New York's Natural Heritage Program, a joint venture with The Nature Conservancy, has a detailed

ecological classification system for the State's wetlands. Included in this scheme is a determination of the class's rarity and threat at both the global and state level.

## Historic and Contemporary Losses: Statewide Trends

To determine the status and trends of New York's freshwater wetlands resource, DEC conducted a statewide analysis using EPA grant funds. The study looked at the status of the freshwater wetlands resource, changes in the wetlands resource between the mid-1980s and the mid-1990s, and to what causes those changes can be attributed.

While it is estimated that the State has lost over half of its wetlands since colonization to such activities as draining, dredging, filling, and polluting, results of that study indicate that after decades of wetlands loss, the State had a net gain of an estimated 15,500 acres of freshwater wetlands between the mid-1980s and the mid-1990s. The State gained a total of an estimated 37,900 acres of freshwater wetlands, but lost approximately 22,400 acres.

Most gains occurred in the Lake Plains, which accounted for the vast majority of increases-- an estimated net gain of 15,200 acres. In the Appalachian Highlands (southern tier), the Adirondack ecozone, and Coastal Plains (Long Island) losses and gains were about equal. In the Hudson Valley, there was a minor net loss of wetlands.

There were seven causes of change identified in the study: agriculture, urbanization, aggregate mining, linear development, beaver activity, modified hydrology (such as increased runoff), and plant succession. Agriculture resulted in a loss of an estimated 11,000 acres (50% of all losses) but a gain of 29,000 acres (76% of all gains) as farmland, drained decades ago, was abandoned and reverted back to

wetland. This resulted in a net gain from agriculture of approximately 18,000 acres statewide. Approximately 83% of the gains and 37% of the losses from agriculture occurred in the Lake Plains. The Appalachian Highlands lost more acreage to agriculture but had only minor gains, resulting in a net loss to agriculture of about 2,000 acres.

Developmental activities (urbanization, linear development, and aggregate mining) accounted for the other 50% of wetlands losses, but with virtually no measurable gains in wetlands acreage. Urbanization accounted for a loss of about 8,000 acres, of which 58% occurred in the Lake Plains and 32% occurred in the Hudson Valley. Construction of roads and highways resulted in some losses, primarily in the Lake Plains and Hudson Valley. Aggregate mining (for sand and gravel), which coincides with road construction and urbanization accounted for the loss of about 2,200 acres, 86% of which occurred in the Lake Plains.

The second major cause of gains in wetlands was attributed to "modified hydrology," which includes impacts such as increased runoff, drainage, and altered hydrology resulting from human modification of the land. This resulted in an increase of approximately 8,600 acres or 23% of all gains in wetlands acreage statewide. Most of the gains in this category occurred in the Lake Plains and Appalachian Highlands.

This study did not attribute significant gains in wetlands acreage to beaver — only a small, and statistically insignificant 100-200 acres. However, beaver caused a change in cover type of almost 8,000 acres, as their damming activities flooded shrub/scrub and forested wetlands, changing them to open water and emergent vegetation.

Finally, the greatest overall dynamics in New York's wetlands resource resulted from natural ecological succession, the process by which fields change

to forests. The study noted a change in cover type in almost 120,000 acres of wetlands statewide.

While a net gain of an estimated 15,500 acres of wetlands is wonderful news for New York, there are many concerns this study raises. For example, most net gains occurred in the Lake Plains, and most net loss occurred in the Hudson Valley. Most gains occurred in rural areas, while half the losses resulted from urbanization, and therefore occurred in urban and suburban areas. This has resulted in a considerable geographic shift of wetlands, along with their corresponding services they provide, such as water quality protection and flood attenuation. A landowner living along a stream and who now suffers more flooding from loss of wetlands upstream will be little comforted by more wildlife habitat in the rural surrounding area. Our urbanizing population is also increasingly isolated from the open space and wildlife habitat provided by wetlands.

Similarly, most of the gains in wetlands acreage are from reverting agriculture land and altered hydrology, both of which are causes that cannot be attributed to the multitudes of wetland conservation programs in place throughout the State. We can anticipate that abandonment of agricultural land will decline, as will its corresponding gains in reverted wetland. At that time, we may again see net losses of wetland acreage statewide.

In addition, the State is still losing considerable amounts of wetlands — an estimated 22,400 acres in the 10 year period of this study. Over 8,000 acres were lost to urbanization. Of that, an estimated 64% occurred in wetlands larger than 12.4 acres in size. Additional studies are needed to determine whether these losses are occurring in wetlands shown on the regulatory maps. The study also indicates there are regional differences in the pressures on the freshwater wetlands resource.

As for tidal wetlands, DEC has observed significant losses of vegetated tidal wetlands, principally *Spartina alterniflora* (Intertidal Marsh), in marsh islands of Jamaica Bay. Examination of historic maps reveals that between 1857 and 1924, the intertidal marsh islands area varied in size without trend, with average changes of up to 10 acres per year. During periods of significant storms, there were losses of marsh islands. But during quiescent years, the marsh islands appear to be able to rebuild.

From 1924 to 1974, 780 acres of marsh islands were lost due to direct dredging and filling (which were unregulated activities up to 1974) and 510 acres were lost (approximately 10 acres per year) due to other reasons. Since 1974, the study shows that the rate of loss of intertidal marsh islands is accelerating. Between 1974 and 1994, 526 acres of marsh islands were lost at an average rate of 26 acres per year. Between 1994 and 1999, 220 acres were lost at an average rate of 44 acres per year. The vegetated intertidal marsh is being converted to nonvegetated subtidal lands.

The data indicates significant loss of intertidal marsh (especially islands and also along the shoreline) is occurring in Jamaica Bay, but the reasons are subject to further research. Potential contributing factors include sediment budget disruption, sea level rise, dredging, wave energy, erosion and eutrophication. It is most probable that intertidal marsh islands were able to rebuild naturally during the first part of the 1900's because of the extensive shoals and mudflats replenishing sediments to the marsh islands. However, the recent loss of intertidal marsh islands may be due to "drowning" and/or erosion of the intertidal marsh. In many areas, the interior portions of marsh appear to be subsiding or drowning due to lower elevation that could be caused by sediment loss and/or poor marsh peat porosity (water logged, soft and

compressed rather than "spongy" like healthy marshes).

In addition, preliminary information suggests that the disappearance of intertidal marshes, at a lesser degree and rate, is occurring in other areas of the marine district (western portions of Long Island Sound and South Oyster Bay). For example, a vegetated marsh island in the southern portion of Manhasset Bay that appears on the 1974 Tidal Wetlands map is now completely covered by water. Because intertidal marsh is critical to estuarine productivity and New York State has lost much intertidal marsh historically, it is essential to give priority attention to the assessment of the problem marine-district-wide, and develop remediation/restoration/research and monitoring strategies where possible and necessary.

## **Wetlands as a Priority Concern**

New York considers wetlands a priority resource, and articulates that concern in statute. The State has comprehensive wetland conservation programs and works with federal and local governmental agencies and with other nongovernmental partners to better protect wetlands.

Through a suite of programs from acquisition and regulation to restoration and education, the State has successfully protected its wetlands resources and will continue to be a leader in preserving, protecting, and conserving the wealth of its wetlands resources.

# Wild and Scenic Rivers Program

## National Legislation

In 1968 the Wild and Scenic Rivers Act was passed by Congress in an effort to create a national system of protected rivers. The Act declared:

“It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.”

The program has been successful at preserving a large number of the nation's premier rivers. A large portion of the designated rivers are located in the northwest; Oregon and Alaska have the highest number of segments and most miles of river designated, respectively. New York State only has one river designated as part of the National system, that river is the Delaware (Upper) River. The Delaware (Upper) was designated in 1978 as a Wild and Scenic River for

the portion between Hancock, NY and Sparrow Bush, NY; the designation is listed as both scenic (23.1 miles) and as recreational (50.3 miles).

The protection of the Delaware River through the Wild and Scenic River program has allowed the river to remain a productive source of drinking water for 17 million people as well as maintaining a natural recreational resource for visitors.

## Nationwide River Inventory (NRI)

The NRI is an inventory managed by the National Park Service of river segments that are potentially eligible to be designated as part of the Wild and Scenic Rivers program. The passage of the Public Law 90-542 (the Wild and Scenic Rivers Act of 1968) led to the creation of the inventory which was first published in 1982 after potential rivers were identified all across the United States. To be listed on the NRI the river (or segment) needs to fit the following three criteria; it needs to be a free flowing river, the river and corridor need to be relatively undeveloped, and finally the river needs to possess outstanding natural and/or cultural resources. Once a river (or segment) is listed on the NRI all federal agencies must avoid or mitigate actions that could adversely affect one or more of the NRI segments.

Currently there are more than 3,400 rivers listed on the Nationwide Rivers Inventory. New York State has a total of 184 river segments identified as eligible river segments and listed on the inventory. This listing affords the water resource protection from inappropriate use and allows all different recreation types to occur in a natural setting. The creation of conservation plans for the NRI rivers helps with decision making and the studies can provide new information to the community on the natural resources that can be found in their local waterway.

## Partnership Wild and Scenic Rivers

Within the National Wild and Scenic Rivers System there is a program called Partnership Wild and Scenic Rivers Program that works with communities in their effort to preserve and manage their river-related resources locally. The program focuses on rivers that are located on private land and not managed by the government. Since there are private citizens involved, the program brings a broad range of groups together, including citizen groups and many levels of government. The Northeast has been very active in this program, with the 8 partnerships being located within New Jersey, New Hampshire, Connecticut, Massachusetts, Pennsylvania and Delaware.

To become a Partnership Wild and Scenic River it is necessary to partner with the NPS to identify the special resources that your river possesses. A bill must be passed that authorizes the NPS to work with the community to do the study, and this study process is funded by the federal government and can take 2-3 years. After the study is completed a determination will be made whether the river will be designated as Partnership Wild & Scenic River.

## State Legislation

New York State has a number of rivers with significant natural, scenic, historic, ecological and recreational values. The NYS Wild, Scenic and Recreational Rivers System was enacted in 1972 to preserve, protect, and enhance these unique rivers and their immediate environs in a free flowing condition and in a natural state. The program is administered by DEC outside the Adirondack Park and on State lands within the Park. The Adirondack Park Agency has responsibility for the program on private lands within the park.

There were 14 initial rivers (segments) designated as part of the NYS

Wild, Scenic and Recreational Rivers system; these were located within the Adirondack Park boundaries. After the legislation was first passed, additionally designated segments were proposed to the legislation and added to the list. This included seven rivers outside the Adirondack Park with the classifications of scenic and recreation: The Carmens River, Nissequogue River, Peconic and Connetquot Rivers in Suffolk County; the Genesee River through Letchworth State Park; the Ramapo River in Orange and Rockland County and the Shawangunk Kill River in Ulster and Orange Counties. Throughout the year the Commission or agency can propose additional segments to the Governor and legislature for inclusion on the list.

The legislation designates three classes of rivers: wild, scenic, and recreational. Wild rivers are those that are free of diversions and impoundments, and inaccessible to the general public except by water, foot, or horse trails. The river areas are primitive and undeveloped with human intrusions limited to forest management and foot bridges. The minimum length of any one section shall be five miles and there shall be a minimum distance of one half mile from the shore of the river to a public highway or private road open to the public for vehicular use, except where a physical barrier effectively screens the sight and sound of motor vehicles. These strict criteria dictate that few, if any, rivers outside the boundaries of the Adirondack Park will be designated wild.

Scenic rivers are also to be free of diversions or impoundments, except log dams, with limited road access and with river areas largely primitive and undeveloped or which are partially or predominantly used for agriculture, forest management and other dispersed human activities which do not substantially interfere with public use and enjoyment of the rivers and their shores. Recreational rivers are generally readily accessible by road or railroad, may have

development in the river area, and may have undergone some impoundment or diversion in the past. Currently, 66 rivers, encompassing over 1200 miles, have been designated as wild, scenic or recreational rivers in New York State.

## **Water Access/ Water Recreation**

New York State has 3.5 million acres of lakes and ponds, 70 thousand miles of rivers and streams, 10 thousand miles of lake and marine shorelines, wetlands and canals all of which constitute 14% of the total surface area of the State. With the Great Lakes and Lake Champlain, the Atlantic coasts of Long Island, the Hudson River and the Mohawk River, the Canal System, the Finger Lakes and other inland lakes, ponds and streams, New York has abundant resources for water-based recreation. Boating, fishing and swimming are popular activities for New Yorkers and this places greater demands on existing facilities and services which create a need for more public access to the State's waters. The past three years have seen a 30% decrease in boater registration, but the numbers remain high with over 500,000 registrations in 2005; NY remains among the top states with number of registered vessels. High numbers of boater registrations has a positive effect on the state, regional and local economy through job creation. Statewide, recreational boaters generated \$1.8 billion towards the economy and 18,700 jobs. (OPRHP Recreational Boating, 2005)

DEC sells fishing licenses to both New York residents and nonresidents for additional revenue and to authorize individuals. Over the past 25 years the number of resident fishing licenses sold has ranged from a low of 8 thousand in 1984-85 to a high of over 1 million in 2002-03 and 2003-04. Reported

sales for the most recent year available (2005/2006) are 978 thousand. Current (2005/2006) nonresident sales are 148 thousand. Other recreation activity experiences that are not directly dependent on water access can be enhanced by water access. Picnicking or relaxing in the park, visiting nature areas and gardens, camping, hiking or backpacking, bird watching, and horseback riding could all be enhanced by proximity to water bodies.

## **Water Based Resources**

Across the State, there are 3,251 facilities that offer swimming. Of these, 1,863 offer beach swimming with 562,174 linear feet of beach and 1,571 have swimming pools (some sites offer both pools and beaches). Private and commercial sectors provide over three-fifths of the number of facilities. State operated beaches and pools constitute less than 6% of the swimming facilities statewide but tend to be larger facilities. These figures do not include privately owned backyard pools which satisfy a fairly large percentage of the State swimming demand. Similarly, most boating facilities in New York State, aside from car top launch sites, are owned and operated by the private sector. Also since 1935, DEC has been acquiring public fishing rights easements along the bed and banks of the State's major trout streams. These easements allow the public walking and wading access, for the purpose of fishing only. To date DEC has acquired 1,230 miles of such easements along trout streams across the state.

In 1990, a survey of boaters was conducted jointly by OPRHP and DEC. This survey attempted to determine boater use patterns and boater perceptions of boating access in New York State. The survey indicated that generally there is greater use of public sites on weekends and holidays as compared to weekdays.

## *Statewide Programs*

Launches from public sites contribute less than 1/3 of all boats in use on lakes in 1990. This percentage increases during the spring and fall although the absolute number of boaters during those seasons is much lower (DEC and OPRHP, 1992).

The level of utilization of boating resources varies according to time of day, day of the week and from season to season. Boaters expressed concern with the worst case conditions that exist when use is the highest. In fact, the most important result of the 1990 survey was that the public identified 459 water bodies across the State as needing new or enhanced boat access sites. OPRHP and DEC have been using this list to guide acquisition of new sites and the modernization of existing sites. There is a need to conduct another survey to identify currently water access needs.

The 2004 General Public Survey asked New York State residents if additional recreation facilities were needed within approximately 30 minutes of their home. Their responses indicated a desire for many types of recreation amenities. Of those indicating a specific need, approximately 24% mentioned boating and water access facilities. (OPRHP General Public Survey, 2004) A similar survey of local park professionals also indicated a need for more water based recreation services. Among the professionals, approximately 35% identified fishing and 25% identified boating as activities in their communities in need of additional facilities. Swimming pools were also identified as needed, although beaches were not mentioned as often. Beaches may not be feasible in many of the areas surveyed because of physical constraints. (OPRHP General Public Survey, 2004)

Over 75% of the general public indicated that they believe that the government should increase and/or create additional public access to water resources such as lakes, streams, beaches

and ocean fronts (OPRHP General Public Survey, 2004). Park professionals responded to this issue positively as well; over 70% of the respondents agreed that government should purchase additional public access to water resources (OPRHP General Public Survey, 2004).

## **Great Lakes**

New York State borders two Great Lakes. Lake Erie and Lake Ontario have more than 1,500 miles of shoreline and nearly half of that along New York State's border (Great Lakes Regional Waterways Management Forum, undated). Approximately 40% of New York's lands are within the Great Lakes watershed and more than 20% of its population resides within the basin. Recreation and tourism continue to be a major contributor to the economy of the Great Lakes region. As responses from the urban areas of Buffalo and Rochester demonstrate, increasing demand for swimming, boating and fishing opportunities are placing more pressure on management agencies to "clean up", maintain water levels, protect wildlife habitat areas, restore fish and wildlife populations, and provide more public access for improved public uses of the Lakes and their resources. Recreational use of the Great Lakes waters is often listed as an impaired use. With the anticipated expansion of recreational interests, greater demands will be placed upon existing facilities and resources in the Great Lakes region, many of which are not in sufficient supply or condition to satisfy these increasing needs.

The following organizations and programs recognize the importance of the Great Lakes to the economic vitality of New York State and the role of recreational use and water access as part of the regional economy. OPRHP and DEC work with and participate in these programs to ensure public recreation and access issues to the Great Lakes are addressed.

## **Council of Great Lakes Governors**

New York's Governor, along with the other seven Great Lakes governors comprises the Council of Great Lakes Governors. The mission of this council is: "To encourage and facilitate environmentally responsible economic growth." This is accomplished by establishing a cooperative effort between the public and private sectors among the eight Great Lakes states and with the Canadian Provinces of Ontario and Quebec. Through the Council, Governors work collectively to ensure that the entire Great Lakes region is both economically sound and environmentally conscious in addressing today's problems and tomorrow's challenges.

The Council works directly for the eight Great Lakes Governors on projects and issues of common concern to them. The Council develops, implements, and coordinates project-specific initiatives to improve the region's environment and economy. The Council is unique among regional and national Governors' organizations because the member-Governors insist that the initiatives and projects pursued have a direct impact on the health and welfare of the region's citizens.

The Council currently represents the eight states on an Executive Committee charged with coordinating the implementation of the Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes, adopted December 2005. This comprehensive strategy establishes eight strategic restoration and protection priorities (aquatic invasive species, habitat/species, coastal health, AOC/sediments, nonpoint sources, toxic pollutants, indicators and information, and sustainable development) and calls on federal agencies, states, local municipalities, non-government organizations, the business community, and native American tribes to contribute to implementing over 40

key actions designed to address the eight priorities. The SCORP serves as an important mechanism for enabling New York to help achieve the Strategy's priorities and recommended action targets.

## **The Great Lakes Commission**

The Great Lakes Commission (Commission) is a binational agency that promotes the orderly, integrated and comprehensive development, use and conservation of the water and related natural resources of the Great Lakes Basin and the St. Lawrence River. The Commission was established by joint legislative action of the Great Lake States in 1955 and was granted congressional consent in 1968. The Commission is comprised of representatives from the eight Great Lake States and associate members from the Canadian Provinces of Ontario and Quebec (The Great Lakes Commission, 2007).

The Commission has been applying the principles of sustainability to the development, use and conservation of the natural resources of the Great Lakes Basin and St. Lawrence River. The Commission addresses a range of issues involving environmental protection, resource management, transportation and economic development. The Commission's vision for the basin is to have a strong and growing economy, a healthy environment, and a high quality of life for all citizens. To accomplish their vision, the Commission adheres to three supporting principles: 1) information sharing among the membership and the entire Great Lakes-St. Lawrence Community; 2) policy research, development and coordination on issues of regional interest; and, 3) advocacy of those positions on which members agree.

## **The Great Lakes Fishery Commission**

The Great Lakes Fishery Commission (GLFC) was established by the Convention on Great Lakes Fisheries between Canada and the United States in 1955. The Commission has two major responsibilities: (a.) to develop coordinated programs of research on the Great Lakes, and, on the basis of the findings, to recommend measures which will permit the maximum sustained productivity of stocks of fish of common concern; and (b.) to formulate and implement a program to eradicate or minimize sea lamprey populations in the Great Lakes.

The GLFC established a strategic plan with a common goal to secure fish communities, based on foundations of stable self-sustaining stocks, supplemented by judicious plantings of hatchery-reared fish, and provide from these communities an optimum contribution of fish, fishing opportunities and associated benefits to meet needs identified by society for wholesome food, recreation, cultural heritage, employment and income, and a healthy aquatic ecosystem.

The fishery resources of the Great Lakes are held in trust for society by government. The agencies responsible for them have been charged to manage the fishery resources and fisheries to provide continuing valuable contributions to society. These contributions include such benefits as a healthy aquatic environment, aesthetic and recreational values, scientific knowledge and economic activity as well as fish and fishing opportunities. The Commission carries out these activities through Lake Committees. Each Lake Committee has adopted Fish Community Objectives that outline specific resource management and stocking targets for various fish species. New York State participates on both the Lake Erie Committee and Lake Ontario Committee.

## **New York State's Great Lakes Basin Advisory Council**

The Great Lakes Basin Advisory Council (Council) was established by statute (ECL Section 21-0917) in 1988. The Council was formed to assist the State in its effort to protect the environmental, social and economic health of the Great Lakes Region. The Council functions as a link between state and local governments, private sector businesses, academic community and the public. (DEC, 2007)

The Council consists of 19 members who advise the Governor, State Legislature and the DEC Commissioner on matters relating to the State's role in regional, federal and international activities and programs aimed at protecting the quality and quantity of water in the Great Lakes. Domestic, municipal, industrial and agricultural water supplies; navigation; hydroelectric power and energy production; recreation; fish and wildlife habitat; and a balanced ecosystem are all vital to the future environmental, social and economic health of the Great Lakes Region. Some examples of what the Council is responsible for are:

- Advising the Governor and DEC Commissioner regarding the implementation and modification to any comprehensive long-term Great Lakes management plan developed by DEC or others;
- Advising the State's members on the board of directors of the regional Great Lakes Protection Fund;
- Annually identifying specific research or program needs for funding from the New York Great Lakes Protection Fund; and,
- Evaluating and reporting to the Governor and Legislature on projects funded by the New York Great Lakes Protection Fund.

Since its creation, the Council has assisted in the development of "New

## *Statewide Programs*

York State's 25-Year Plan for the Great Lakes" (DEC, 1992), advised the Governor and the State Legislature on major water withdrawal proposals, and advised and assisted the Governor and the State Legislature in the development of the "Annex 2001" – an amendment to the Great Lakes Charter (Council of the Great Lakes Governors, 2001) and the proposed legislation on the "Great Lakes – St. Lawrence River Basin Water Resources Compact." In addition, through its partnership with the Great Lakes Research Consortium, the Council has approved the award of 21 large grants totaling one million dollars and 36 small grants totaling nearly a quarter of a million dollars from New York's Great Lakes Protection Fund. The grant program promotes research, information collection and public outreach to support the various Great Lakes programs, plans and strategies.

The Council plans on continuing its role and responsibilities to advise the Governor and State Legislature on water withdrawal proposals, identify and recommend research regarding New York's Great Lakes and to recommend special projects to restore and enhance the water quality and wildlife habitat of New York's Great Lakes Basin.

## **Lakewide Management Plans (LaMPs)**

The development of Lakewide Management Plans (LaMPs) stem from the Great Lakes Water Quality Agreement originally signed by the United States and Canada in 1972 and amended in 1978 and 1987. In the 1987 amendment, the two governments agreed to develop Lakewide Management Plans that will "restore and maintain the chemical, biological and physical integrity of the waters of the Great Lakes Basin" (Great Lakes Information Network, 2007). The LaMPs are intended to (1) identify critical pollutants that affect beneficial uses of the waters of the Great Lakes and (2) promote ecosystem-based management

approaches to restoring the basin's integrity.

Lake Erie, the twelfth largest freshwater lake in the world (in water surface area), is the shallowest and most biologically productive Great Lake. The Lake Erie LaMP focuses on measuring ecosystem health, teasing out the stressors responsible for impairments, and evaluating the effectiveness of existing programs in resolving the stress by continuing to monitor the ecosystem response. The role of the LaMP, as a management plan, is to define the management intervention needed to bring Lake Erie back to chemical, physical and biological integrity, and to further define agency commitments to those actions. Although Environment Canada (EC) and the U.S. Environmental Protection Agency (U.S. EPA) are the lead agencies for the LaMP, it takes an array of federal, local, state and provincial agencies and stakeholders to successfully design and implement the Lake Erie LaMP. (US EPA, 2007)

Lake Ontario, the fourteenth largest freshwater lake in the world, is nearly four times deeper than Lake Erie but is the most vulnerable to upstream and upwind pollution sources. The LaMP for Lake Ontario was completed in 1998. This document identified four lakewide impairments, activities that further develop source reduction strategies for six critical pollutants (PCBs, DDT and metabolites, Mirex, Dioxins and Furans, Mercury, and Dieldrin), and actions that were designed to restore beneficial uses in Lake Ontario. Problems identified include: loss of natural habitat for fish and wildlife; restrictions on eating some fish and wildlife; degradation of wildlife populations; and, bird or animal deformities or reproductive problems (Environment Canada, U.S. Environmental Protection Agency, et al, 1998). The goal is a healthy Lake Ontario Basin that contains thriving fish and wildlife populations and that basin residents can enjoy to the fullest extent. An update report issued in

2007 states that the management of critical pollutants has been effective in reducing their presence and that fish and wildlife populations are responding positively – especially bald eagles, colonial waterbirds, mink, otter and snapping turtles. Healthy populations of these species now exist within suitable habitats around Lake Ontario. (US EPA, 2007) The LaMP is currently developing a Biodiversity Strategy focusing on protection and conservation of important fish and wildlife habitats in and around the lake basin. The SCORP will be vital mechanism for achieving the goals of this developing strategy.

## **Remedial Action Plans**

As part of the binational Great Lakes Program, six areas of concern were identified within New York as required by the 1987 amendment to the Great Lakes Water Quality Agreement (International Joint Commission, 1994). "Areas of Concern" are areas where beneficial uses of the lands, shores, and water are impaired due to water quality issues and do not meet the objectives of the Water Quality Agreement. The six areas identified in New York are the Buffalo River, the Niagara River, the Rochester Embayment, the Oswego River, Eighteen Mile Creek in Niagara County and the St. Lawrence River at Massena, NY (U.S. EPA, 2007).

The Water Quality Agreement outlines a process for bringing these areas into compliance. This process involves the development of a Remedial Action Plan (RAP). The purpose of the RAP is to develop strategies and consensus approaches to restoring beneficial uses that have been impaired within specific areas of concern. This process has four stages outlined. The first stage is problem identification, in which impaired uses and the causes of those impairments are identified. The second stage is to develop methods to address or correct these impairments. The third phase is to implement the actions identified in step two. Finally, the fourth

stage is to remove the area of concern from the list.

The ultimate goal of the Remedial Action Plans is to have all areas "de-listed". In New York State, only the Oswego River AOC has achieved the goal, being the first of the U.S. AOC to be delisted in July 2006. The remaining five areas are in various stages of the process. After completing environmental review under the NY State Environmental Quality Review Act (SEQR), DEC included all six RAPs as part of the State's Water Quality Management Plan (DEC, 1998).

## **New York State 25-Year Plan for the Great Lakes**

An important objective specified in the 25-Year Plan for the Great Lakes (25-Year Plan), prepared in 1992, is to increase opportunities for the public to gain access to the Great Lakes Coastal areas (DEC, 1992). A jointly prepared OPRHP and DEC "Strategic Plan for Economic Development through Expansion of Waterway Access to the Great Lakes" and the 25-Year Plan identified the existence of many water access sites which have the potential to maximize the recreational and economic benefits associated with the Great Lakes fisheries program (DEC and OPRHP, 1982). Current listings of State and Municipal boat launch sites show that there are 7 launches on Lake Erie, 9 on the Niagara River, 28 sites on Lake Ontario, and 14 sites along the St. Lawrence (DEC, 2007). A site identified within plans for boat access, Woodlawn Beach was acquired and developed as a State park with beach swimming south of Buffalo. Efforts continue to increase public access to the shores of the Great Lakes through land acquisition and the development of partnerships with local governments and other agencies.

DEC is in the process of evaluating the State's progress in implementing

the 25-Year Plan and developing an action plan for the next five years of the plan's implementation. This action plan will identify short-term activities recommended within the 25-Year Plan that have not yet been accomplished and identify new priorities that have been identified since the creation of the 25-Year Plan.

## **Finger Lakes**

The Finger Lakes Region is comprised of a series of long narrow lakes created by glaciations during the last Ice Age that ended about 14,000 year ago. The 11 primary lakes span from Conesus Lake south of Rochester to Otisco Lake south of Syracuse. The lakes from west to east include:

- Conesus Lake
- Hemlock Lake
- Canadice Lake
- Honeoye Lake
- Canandaigua Lake
- Keuka Lake
- Seneca Lake
- Cayuga Lake
- Owasco Lake
- Skaneateles Lake
- Otisco Lake

The lakes serve as a major water recreation resource for the area, providing extensive fishing, swimming, boating and hunting opportunities. Eleven OPRHP facilities are located along the shores of the Finger Lakes. Seneca and Cayuga Lakes are also part of the Barge Canal System. With the increase in shoreline and upland development and the use of the lakes' resources, there has been a growing concern to improve, maintain and protect the water quality and water resources. To better guide future efforts aimed at protecting and improving water quality, the Division of Coastal Resources has encouraged the completion of intermunicipal watershed plans as a means of establishing a consensus on priority actions needed to protect or improve water quality. Within the Finger Lakes, the Department of State awarded EPF grants for the

preparation of such plans for Cayuga, Canandaigua, and Conesus Lakes.

In addition to the watershed plans, the Division of Coastal Resources is working with several municipalities within the Finger Lakes through the LWRP process. Finger Lakes communities which are preparing, or have completed, an LWRP include: City of Auburn; Tompkins County communities along Cayuga Lake (City of Ithaca, Towns of Ithaca, Lansing, Ulysses; Villages of Cayuga Heights and Lansing); City of Geneva; Town and Village of Seneca Falls/ Town and Village of Waterloo; and Village of Watkins Glen.

## **Hudson River**

The Hudson River flows 315 miles from the Adirondack Mountains to New York Harbor. The Hudson River is used by half of the residents of New York State for water supply, waste disposal, power generation and recreation. The 150-mile estuarine section extends from the federal dam at Troy to New York City Harbor. With improvements in its water quality there has been an increased interest in the vast recreation potential of the river. However, public access to the Hudson is severely limited by private ownership, topography and high speed rail lines that run parallel to the river. There are 1081 recreational facilities within the towns along the lower Hudson River. Of this total, only 43 are State-owned and can thus expect to provide some guaranteed long-term public access.

In 1989, The Hudson River Access Forum, which consisted of representatives from the National Park Service (NPS), the Division of Coastal Resources of DOS, OPRHP, DEC, DOT and three nonprofit organizations, produced a report that identified sites of potential public access to the Hudson River shoreline. A major thrust of the study was to identify potential railroad crossings that connect existing and potential water access sites (Hudson River Access

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Forum, 1989). This effort was intended to take advantage of a DOT program that will raise railroad overpasses and increase public railroad crossings along the Hudson River between Albany and Westchester Counties. Providing safe crossings of the rail system has been a major impediment to accessing public recreation land and private lands, directly on the shoreline. In addition, New York State awarded a \$1 million grant to the Hudson River Valley Greenway to develop a Hudson River Greenway Water Trail. A complete description of the Hudson River Valley Greenway Program can be found in the "Connectivity Chapter".

## The Hudson River Estuary Program

The Hudson River Estuary Program was established in 1987 in response to Section 11-0306 of the Environmental Conservation Law, the Hudson River Estuary Management Act. The program is a regional partnership designed to protect, conserve, restore and enhance the estuary, associated shorelands as well as related upland resources. DEC serves as manager of the program in collaboration with OPRHP, DOS, OGS, DOT, the Metro-North Railroad, the Hudson River Valley Greenway, the Hudson River Foundation, Cornell University, New England Interstate Water Pollution Control Commission (NEIWPP), Soil and Water Conservation Districts and a citizen advisory committee along with municipal governments (DEC, 2007).

The long-range goals for the Estuary Program are outlined in the *Hudson River Estuary Action Agenda 2005-2009*. For each goal, interim targets have been set in quantitative terms, wherever possible, with specific dates for achievement. The *Action Agenda* undergoes revision every four years. The current edition of the Estuary *Action Agenda* is available from DEC's website at <http://www.dec.ny.gov>

Encouraging people to get to the river and enhancing recreational opportunities have been a major goal of the Estuary Program. In 1999, the Estuary Program initiated a grants program to provide opportunities for implementing *Action Agenda* goals at the local level. Grants are available to municipalities and not-for-profits in five categories, including access to the Hudson River estuary for recreation. To date, more than 300 grants, totaling nearly \$10 million have been awarded to these local efforts. (DEC, 2007).

Since its inception in 1987, the Estuary Program, along with OPRHP, Hudson River Valley Greenway, DOS, Hudson River Park Trust and Metro-North Railroad has been actively working to establish new or improved river access, including boat launches, docks, piers, railroad crossings, new local parks and waterfront walkways. Some public access accomplishments include:

### *Trailer Boat Launches:*

New boat launches have been constructed at Henry Hudson Park in the Town of Bethlehem, Schodack Island State Park (joint project with OPRHP), and the Haverstraw Bay County Park.

Existing boat launches have been upgraded at: Cities of Newburgh and Peekskill, Mills-Norrie State Park (joint project with OPRHP), Village of Athens (joint project with OPRHP), Village of Rhinebeck and the Village of Coxsackie.

### *Hand Launches:*

Grants approving funding for 25 hand launches on the estuary as well as multiple locations with floating docks for launching canoes and kayak. Additional grants have approved design studies for other sites.

### *Fishing Piers:*

The Estuary Program provided angling opportunities at fishing piers

through the use of cooperative agreements and grants. Three piers have been completed at Verplanck, Peekskill-Annsville Creek, and Rensselaer.

### *Access Across the Railroad Tracks:*

Working from the Governor's Task Force on Estuary Access 1999 recommendations, two new shore fishing sites have been built at railroad crossings in the Metro-North corridor at the Riverdale and Greystone stations. Further, there is enhanced access across the railroad tracks at Dennings Point, Little Stony Point, Cold Spring station, Arden Point, and Annsville Creek and the Beacon waterfront.

Other Estuary Program Initiatives highlighting recreational access to the Hudson River:

- Conducting surveys of recreational striped bass fishing on the Hudson. Estimated catch rates and total harvest for striped bass
- Implementing a four season creel survey of recreational fishing for all species
- Releasing findings of its swim study, *Swimming in the Hudson River Estuary*, Feasibility Report on Potential Sites, NYS DEC, NYS OPRHP, June, 2005. This report identifies 18 feasible sites for development of swimming beaches on publicly owned lands.
- Offering hikes and educational events led by Estuary Program staff and members of the estuary advisory committee that feature the estuary or its tributaries as part of the Hudson Valley Ramble
- Developing an interactive CD which will provide to the public nearly 100 locations along the estuary for shore fishing and boat launching for a wide variety of recreational activities including fishing, hunting, bird watching, canoeing, kayaking, sail and power boating

The *Action Agenda's* goal is to establish a regional system of access points and linkages so that every community along the Hudson has at least one new or upgraded access point to the river for fishing, boating, swimming, hunting, hiking, education, or river watching.

## **Marine Coast**

New York State has over 2,000 miles of marine coastline and one million plus acres of marine surface waters. The marine district, which includes New York City, Nassau, Suffolk and Westchester Counties, is home to 10 million people or 60% of our State's population. Development pressures have been progressing at such a rapid rate that significant remaining access to the waterfront is being lost. Programs such as the Open Space Plan and the DOS's Coastal Management Program, provide methods and funding sources to provide access and to protect and preserve diminishing, recreational coastal resources.

## **Marine Recreational Fishing/Artificial Reef Program**

DEC's Bureau of Marine Resources is responsible for the management of living marine resources and their habitats within the Marine and Coastal District of New York State. The Finfish and Crustaceans Unit monitors and develops management recommendations for the principal finfish and crustacean species of the State including; striped bass, shad, sturgeon, weakfish, winter flounder, scup and many others. All these species migrate up and down the coast and occur in the waters of many states. Data collection and management responsibility of these species is shared among states and federal agencies. The management efforts of the bureau strive to provide a healthy and stable marine fish population and

maintain the habitat for these species for marine recreational and commercial fishing interests.

Recreational marine fishing access is developed on State properties or in cooperation with local municipalities. Program activities include property acquisition, construction of new access facilities such as fishing piers and boat ramps on existing properties, and rehabilitation or improvement of existing facilities.

The Artificial Reef Program, administered by the Finfish and Crustaceans Unit, is committed to optimizing marine recreational fishing opportunities in the State. Artificial reefs may be designed and advocated to serve a dual purpose of habitat improvements and shoreline protection along the Long Island Shoreline. This program is important to the State's recreational future because of the popularity of fishing as a recreational activity.

Marine fishing reefs have long been used to enhance marine habitat and attract marine fish and other animals for harvest. Reefs are built of any hard, durable structure that simulates the habitat of particular species of fish, crustaceans or mollusks. Most artificial reefs in New York are made of rock, concrete or steel, usually in the form of surplus scrap materials. Reefs are developed to provide new fisheries habitat and more accessible fishing grounds for anglers; however, divers also visit these reefs for nature observation, photography and catching lobsters.

The Reef Program's US Army Corps of Engineers (ACOE) and NYSDEC permits for reef construction expired in 2004. Under these permits, from 1993 through 2004, the NYSDEC Artificial Reef Program has deployed the following materials on seven permitted reef sites:

- 594,838 cu. yd. of rock
- 14,410 cu. yd. of concrete (bridge rubble etc.)

- 146 pieces of concrete pipe
- 100 military surplus armored vehicles
- 100 REEFBALL modules
- 20 vessels and 13 barges
- 3 drydocks

These materials produced over three hundred individual patch reefs that are being used by fishermen and divers. This overwhelming success has been due to the extensive private funding of the program and the assistance of the NYSDEC Division of Law Enforcement, U.S. Coast Guard, Suffolk County Public Works Departments. Donations of fishing boat hulls, surplus combat vessels from the REEFEX program, concrete bridge and pier rubble and stores of rock from ACOE dredging projects have been used to create these reefs.

The Program is in the application process to obtain new construction permits for four existing reef sites and one new site in the Atlantic Ocean, and one existing site in the Great South Bay.

## **Fish and Wildlife**

The State offers unmatched fish and wildlife recreational opportunities. The geography of the State provides a great mix of landscapes and habitats that produce diverse and abundant fish and wildlife populations. Native brook trout and the State trout stocking program attract trout fisherman to the small mountain streams. The sport fishermen may wish to try their luck in the Hudson River for the big striped bass that have returned to the river. The Great Lakes Region offers trophy size coho salmon and hosts black bass fishing tournaments. Big game hunting takes place in two zones the Northern and Southern Zones. Each zone offers a different type of hunting experience. The Southern Zone is managed intensively for deer and hence deer numbers are higher. The Northern Zone presents more of a

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challenge to the hunter but larger, older deer can be found. The oceanfront beaches on Long Island, the 5,344-foot summit of Mt. Marcy in the High Peaks of the Adirondack Mountains and everything in between, provide productive habitat and places for people to enjoy fish and wildlife.

## Wildlife Resources

Recreation resources generally focus on land or water areas and discrete facilities or sites. Wildlife as a recreational resource is less location-specific. Their habitat and movement are independent of property boundaries. Wildlife is viewed more in terms of species and populations than in acreage or sites. In the United States, jurisdiction over wildlife does not correspond to ownership of real property, but is vested in the people of each state. DEC acts as the steward of the people's wildlife in New York State. For migratory species, the ultimate authority is the federal government, with DEC and analogous agencies in other states as major participants and cooperators.

To help illustrate wildlife as a recreational resource, the table in Appendix E identifies some of the recreational values of various species; many of them are listed in species groupings. This material is summarized from "Wildlife Species and Ecological Community Accounts," a 1994 report of DEC's Bureau of Wildlife (BOW).

Figure 7.4 shows the State's major ecological zones on which the wildlife management units are based. It is important to recognize that ecological distinctions determine the distribution of wildlife and the opportunities for associated recreation. This gives a framework for the variety of wildlife-related recreation in New York. It should be kept in mind, however, that this is just meant to provide an indication; the actual variety is much greater.

## Current Resources

Rare species occur in various places in the State. Encounters with known rare species are most likely to occur in the Adirondacks and in the coastal low lands of Long Island and New York City and to some extent in the Hudson Valley and the Catskills. Some species, such as the bald eagle, the osprey and the peregrine falcon, are of significant recreational interest.

The waterways and bays in and around New York City, including the Hudson River, the East River, Long Island Sound, Great South Bay and other bays along the south shore of Long Island, the upper and lower New York City bays, the Jamaica Bay Refuge, the Arthur Kill and the Kill Van Kull, can provide city and suburban residents with viewing pleasure for such species as gulls, terns, cormorants, herons, waterfowl and other highly visible, water dependent birds.

The Adirondacks and the Catskills provide wildlife observation, hunting and trapping in a wilderness or wild forest context unlike the rest of the State. The fauna of the Adirondacks in particular is different from the rest of

the State, with elements of more boreal ecosystems. For example, there is a small growing moose population. A viable moose population will have obvious wildlife observation and tourism values and might eventually provide limited hunting recreation. Such less common species as spruce grouse, Canada jay, three-toed and black-backed woodpeckers, and loons are enjoyed as part of the wilderness experience.

People who enjoy wetland wildlife would do well to go to the shores and plains south and east of Lake Ontario and along the St. Lawrence River. These areas include major wetland complexes such as Montezuma, between Syracuse and Rochester, and the Iroquois-Oak Orchard-Tonawanda area, between Rochester and Buffalo. Wetland wildlife concentrations are found elsewhere as well, including the Champlain and Hudson Valley and the coast of Long Island.

Observers and hunters of bear will find them in the Adirondacks, the Catskills and in the Allegheny Plateau. Turkey populations have been reestablished in almost all of New York, including Long Island. Deer are plentiful throughout the State, with the highest

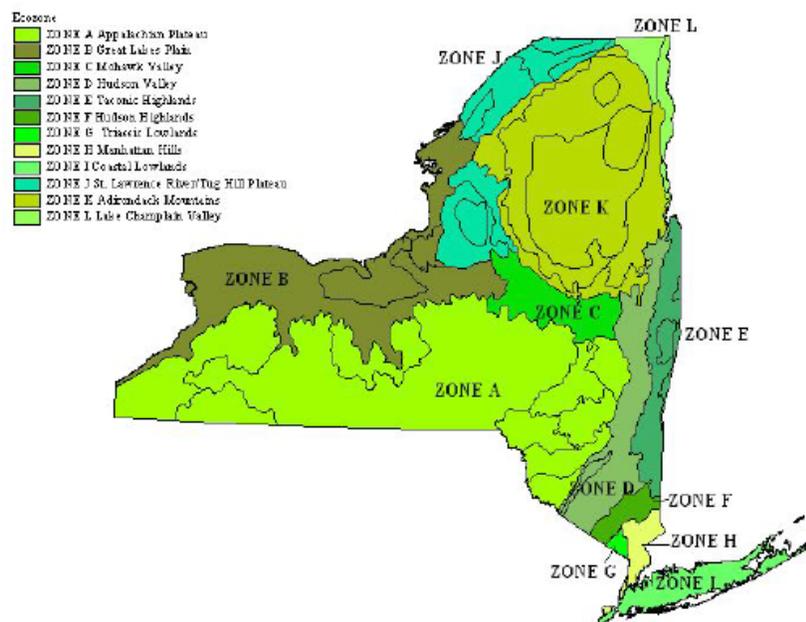


Figure 7.4 - Major Ecozones of New York State

**Table 7.2 - Wildlife Recreation in New York State \***

Hunters	714,000
Days of Hunting	13,187,000
Average days per hunter	18
Total hunting expenditures	\$822,215,000
Average per hunter	\$1,135
Total Wildlife Watching participants	3,885,000
Total non-consumptive expenditures	\$1,407,194,000

\* From the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation conducted by the U.S. Fish and Wildlife Service. Activity by participants 16 years old and older include both residents and non-residents.

likelihood of hunting success in western, central and eastern New York south of the Adirondacks. And of course, wildlife, such as songbirds, squirrels and cotton tails, are to be seen in backyards, neighborhood parks and along roads and walkways, contributing to the quality of everyday life and recreation.

Table 7.2, illustrating information on wildlife-related recreation in New York, is from the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation conducted by the U.S. Fish and Wildlife Service.

## Program Goals

The mission of DEC's Wildlife program is to provide the people of New York with the opportunity to enjoy all the benefits of the wildlife of the State, now and in the future. This mission is embodied in five broad goals: (1) to assure that populations of all wildlife are of appropriate size to meet all the demands placed on them; (2) to assure the public desire for information is met and to obtain public input into management decisions; (3) to provide sustainable uses of wildlife for an informed public; (4) to minimize the damage caused by wildlife and wildlife users; and, (5) to foster and maintain an organization that efficiently achieves these goals.

Recreation is one of the major aspects of DEC's wildlife program. Achievement of appropriate population sizes, meeting desires for uses and exchanging information with the public are the goals most closely related to

recreation. It is inevitable that program objectives will reflect compromises among several goals.

## Discussion

Many people want to know that wildlife exists in its potential abundance and diversity. There are both direct and indirect recreational benefits derived from wildlife. Aside from hunting and observation opportunities, many people achieve satisfaction from the mere existence of various species, such as loons and bears in the Adirondacks, even though they may not have direct contact with them.

While engaging in such activities as camping, hiking, walking, skiing, etc., people often encounter wildlife and have the opportunity to observe many species. These incidental encounters often enhance the primary recreation experience. Recreationists often become accustomed to such encounters and eventually expect them. Observation of wildlife also has recreational value when it is a concomitant to every day living, working and traveling.

People observe and study wildlife for enjoyment. This activity includes both actively seeking opportunities and observing wildlife incidental to other activities. Therefore, an abundant and diverse wildlife population, including endangered, threatened and rare species, needs to be perpetuated and restored in order to serve wildlife recreation.

Hunters, trappers and other recreationists, current and future, should have the opportunity and resources to pursue wildlife interests. In some parts of the State, access to land is declining and/or is severely limited. In addition, political and legal challenges must be addressed.

To maximize social acceptability and public use of wildlife resources on private lands, wildlife recreationists need to develop and practice high standards of ethics, courtesy and safety. Training and educational programs to promote understanding and skill development are a high priority.

Income levels, education levels, physical health, residence in urban/suburban/rural areas, background in wildlife activities are all factors influencing people's involvement with wildlife. Programs that provide opportunities to develop skills, participate in wildlife recreational activities, and involve potential users are needed to enhance public wildlife understanding and support for wildlife resource programs.

DEC will continue to be strongly committed to communicating with the public about all phases of its wildlife program and providing wildlife-related recreation. Communication is two-way, with DEC doing its share of listening.

From 1996 through 2001 DEC's BOW set about conducting a comprehensive wildlife management program that provides the people of New York the opportunity to enjoy all the benefits of the wildlife of the State. They accomplished this task through scientifically sound management that incorporated the desires of the public and the biological needs of wildlife with the goal of maintaining sustainable wildlife populations now and in the future.

### Goal

Achieve the size for all wildlife populations in New York appropriate for the

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demands placed on them, including the demand for their continued existence.

### *Accomplishments*

In attempting to accomplish this goal, BOW began restoration of species that formerly existed in the State but were extirpated, or assisted with the range expansion of species within the State to areas where they historically existed. In 1996 and 1997, BOW continued the restoration of trumpeter swans to New York. In 1996, trumpeter swans were confirmed breeding in New York for the first time. There is some evidence that trumpeter swans nested in New York in pre-colonial times. Also in 1996, DEC formed a partnership with the River Otter Project, Inc. to restore otter to central and western New York. DEC provided technical expertise, staff time, a small amount of federal funding, and permits for moving otter. The goal was to move about 270 river otter to central and western New York by the year 2005. In both 1995 and 1996, river otter were trapped from northern, eastern and southeastern New York and moved to central and western New York. In 1997, it was planned to release up to 60 additional otters. As of 2001, BOW restored the river otter to central and western New York in partnership with the River Otter Project, Inc. by releasing 279 otters over a six-year period. Work on the project continues, with survey work and monitoring in central and western New York and extended surveys to Long Island, where there have been sightings in or near several state parklands.

In 1996, BOW reviewed and amended the NYS list of rare species based on new scientific information gathered and changes in the status of species. The Return a Gift to Wildlife Program, where New York taxpayers may contribute on their State personal income tax form, generated approximately \$770,000 annually for work on endangered and

threatened species, habitat inventories, and species surveys. Some of the projects funded include Project Wild, NYS Natural Heritage Program and the Marine Mammal and Sea Turtle Stranding Program.

Efforts by BOW allowed for the establishment of over 40 breeding eagle pairs throughout the State by 1999-2000. Although bald eagles have been nesting along the Hudson River since 1992, the first documented successful hatch of an eaglet in over 100 years on the river did not occur until 1998. By 1999-2000 the number of young fledged climbed to 64 in a single year. In 2004, there were 66 successful nests and 111 young fledged; and in 2005, there were 92 pairs that fledged 112 young (Nye, 2006). A 2008 mid-winter survey yielded a preliminary total of 199 adult and immature eagles in the state (Nye, 2008).

Another raptor success story is that of peregrine falcons and ospreys. The population of the endangered peregrine falcon continues to do well and expand. In 1998, two new sites produced peregrine falcons: one on Long Island and one in the Adirondacks. Osprey, a species of special concern in New York, continues to show improving productivity.

In 1997, legislation was enacted to create the New York State Bird Conservation Area Program and the Bird Conservation Area Program Advisory Committee. This program provides a comprehensive, ecosystem approach to conserving birds and their habitats on State land and waters, by integrating bird conservation interests in agency planning, management, and research projects, within the context of agency missions.

DEC continues to participate in Partners in Flight (PIF), an international effort to conserve neotropical migratory birds by coordinating actions of different countries, federal and state

governments, nongovernmental organizations and industry.

In an effort to catalog the biota of the Wildlife Management Areas (WMAs) of the State, the results from the 7-year Biodiversity Inventory of DEC's Wildlife Management Areas Project were completed. WMAs represent an important outlet for both consumptive and non-consumptive natural resource users, thus it is crucial that DEC closely monitor the presence and status of both common and rare wildlife species using these valuable habitats.

Work began on the NYS Breeding Bird Atlas 2000. It had been nearly 20 years since work began on New York's first breeding bird atlas. NY State Federation of Bird Clubs (Federation) and DEC took the lead for this monumental effort to update the data. This work was completed in 2007 and the data is now available at: [www.dec.ny.gov/animals/7312.html](http://www.dec.ny.gov/animals/7312.html).

Some of the more inconspicuous, yet invaluable wildlife in New York have also been a part of BOW's management priorities. Species researched, surveyed, and monitored include Karner blue butterfly, Chittenango ovate amber snail, and select reptile and amphibian species. BOW personnel have designed and implemented efforts to fill data gaps on rare species through projects such as the NYS Reptile and Amphibian Atlas, surveys of rare invertebrate species (e.g., dragonflies, butterflies, mollusks), and completing recovery plans for selected species (e.g., Chittenango ovate amber snail).

### *Actions*

- Conduct surveys to determine distribution of and trends in wildlife population.
- Investigate the status of species of concern and identify the causes of any declines.
- Identify protection activities, such as land acquisition, land use regulation, restrictions on toxic

substances and pollutants, public information, cooperative agreements, control of taking and review of projects with the potential to harm wildlife and its habitat.

- Encourage management and enhancement activities, such as species reintroduction and improving critical habitat.
- Increase the public awareness of species through information dissemination.
- Improve habitat to enhance wildlife populations.
- Protect and enhance wildlife populations.
- Provide habitat management and protection, especially of wetlands.
- Control taking, hunting, trapping, and scientific and commercial collection, as needed.
- Assess the decline of neotropical migrant birds and grassland nesting birds.
- Continue to participate in the Atlantic Flyway Council, the North American Waterfowl Management Plan and other interstate efforts to maintain and restore numbers of waterfowl and other species and maximize recreational opportunity within necessary constraints. Particular emphasis is placed on wetland protection and enhancement to meet both hunting and wildlife observation needs as well as species perpetuation needs.
- Continue interagency efforts to protect wetlands. Continue the acquisition of lands and development of cooperative agreements to protect the Northern Montezuma wetlands. DEC and USFWS are continuing their project to protect the Northern Montezuma Wetlands. The project will encompass the premier wetland wildlife complex in New York. It incorporates existing federal and state wildlife lands and contemplates land purchase or cooperative agreements with land owners on an additional 36,000 acres, with provision for habitat restoration and enhancement and

for public use and education. The project will provide a number of major benefits, including important benefits for wildlife observation, wildlife study, hunting, trapping and wildlife-related education.

- Continue objective-setting task forces for deer management.

### *Goal*

Meet the public desire for information about wildlife and its conservation, use and enjoyment, and meet the desire to understand the relationships among wildlife, humans and the environment. Clearly listen to what the public says.

### *Accomplishments*

Bureau of Wildlife surveys indicate that the public has a desire to learn about wildlife in general, as well as expectations of having a voice in decisions related to the management of the resource. It is imperative that BOW understand exactly what the public desires from the wildlife resource and the professionals who manage it, so that appropriate program adjustments can be made.

The Federal Aid in Wildlife Restoration Act (a.k.a., Pittman-Robertson Act), a federal program that funds state wildlife conservation efforts, is an ideal vehicle to help meet these needs. Many federal aid activities are of great interest to the Bureau's stakeholders, and it is in both parties best interests to explain the importance of the Pittman-Robertson Act in the State's wildlife management efforts. BOW has accomplished this by providing educational displays and literature which explain bureau programs, Federal Aid-funded wildlife management activities and accomplishments, and projects of interest to the public at sportsman's shows, state and county fairs, earth day, and other environmental events and local community events.

BOW also responded to information requests from the public regarding

wildlife and its conservation, use, and enjoyment for programs that were not federally funded. The agency provided telephone coverage by wildlife staff and answering systems to respond to telephone requests, provided literature to the public to address their topic of interest, and provided information through electronic media to interested publics by publishing general information on the Internet and disseminating information from the geographic information system (GIS) to consultants, educators and others.

In an attempt to clearly listen to the public and discern what people want from wildlife, BOW developed a close relationship with the Human Dimensions Research Unit (HDRU) in the Department of Natural Resources at Cornell University. The HDRU conducted many research projects, often surveying various user groups such as hunters and trappers, and published the results and conclusions of these studies in both scientific journals and publications for a general audience. BOW has held several meetings to get a better handle on public opinion of various topics. This included programs such as Deer Task Force meetings, Nuisance Wildlife Control Licensees meetings, and Waterfowl Season Task Force meetings. It is crucial to the success of wildlife management programs, as well as being required by law, that the agency provides opportunity for public involvement when there is a potentially controversial wildlife matter. The agency involved local publics in resource management planning and implementation for issues throughout the State such as Tivoli Bays Wildlife Management Area, Motor Island-Strawberry Island Complex, Islip Deer Initiative, Irondequoit Deer Initiative, and development of a draft Environmental Impact Statement (EIS) for cormorants on Lake Ontario.

### *Actions*

- Continue discussions and dialogues with the public to provide a better

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understanding of needs and attitudes that will enable the State to be responsive to their needs.

- Conduct hearings and meetings on key issues.
- Contract, conduct and use the results from numerous surveys to determine public preferences, needs, activities and attitudes.
- Increase the extension agent/conservation educator role of DEC staff.
- Provide audiovisual products (posters, videos brochures, etc.).
- Inform people how to solve/avoid wildlife nuisance problems.
- Provide magazine and news articles to better inform the public of wildlife issues.
- Educate people to the benefits of effective management practices for public lands.
- Develop a network of wildlife education centers near major metropolitan areas that will introduce people to different ways to enjoy wildlife and that will expand their understanding of wildlife management.

### *Goal*

Meet the public's desire to use New York's wildlife.

### *Accomplishments*

New York has a diverse array of wildlife and habitats, a diverse range of geographical regions, and, perhaps most importantly, a diverse array of natural resource users, ranging from hunters and anglers to wildlife observers and hikers. To satisfy these diverse publics' desire to use the wildlife resource, BOW conducted various management activities.

Deer management has a special significance because it directly or indirectly affects many residents. Deer can be a nuisance with economic consequences, such as causing crop damage and vehicle collisions. Deer can also be appreciated for their ecological and recreational values. Deer hunters

spend in excess of \$200 million each hunting season. Regulated hunting has been proven to be an effective deer population management tool and is the primary means used within the State to control deer populations. The record deer take in the State for the 2000 hunting season was approximately 295,000 deer. This included 154,000 antlerless deer to help control the growing population and bring numbers down to desirable levels. The 2006 harvest of almost 96,000 bucks was an increase over the 89,200 taken in 2005. The goal of DEC's management program is to maintain deer numbers at levels that meet local interests and habitat conditions, while also providing quality hunting opportunities. In July of 2003, regulations took effect restricting the feeding of deer, in response to the threat of Chronic Wasting Disease (DEC, 2008).

Bear hunting, also a popular recreational activity, saw increases in harvest during the past 5 years. There was a record bear harvest in the State for 2003 of 1,864 bears. In 2006 that number had dropped to 796. DEC estimates there are between 6,000 and 7,000 bears in the state (DEC, 2008).

The State continued its pheasant production with great success. In 2006, DEC distributed over 73,000 pheasants for release (DEC, 2008). DEC operates the Reynolds Game Farm to improve efficiency and production of ring-necked pheasants for various stocking and rearing programs. A "Ten Year management Plan for Ring-Necked Pheasants in New York" (DEC, 1999) guides pheasant management (DEC, 2008)

There have been several expansions in hunting opportunities in the State. BOW provided for longer muzzleload hunting seasons for deer in the North Country to increase hunting opportunities and reduce deer damage to private property. In 1998, waterfowl hunters were provided the longest duck seasons (60 days) in more than 25 years, thanks to record waterfowl populations in

central North America and very abundant mallard and wood duck populations in the Northeast. In 2007-08, the season was 29 days in western New York. Canada goose seasons were expanded in 1997 based on efforts by BOW to collect and analyze neck band observation and leg band recovery data. The special late goose season was expanded westward across the southern tier of the State. Special goose hunting seasons for resident Canada geese allowed for an increase in waterfowl hunting opportunities in the State and alleviated property damage caused by overabundant goose populations. In 2007, a September goose season was provided and the regular 2007-08 season will provide over 100 days of goose hunting in the South Goose Hunting Area (DEC, 2008). Finally, youth hunts for pheasant and waterfowl were held, and land was acquired for hunting and other recreation.

The Deer Management Assistance Program (DMAP), begun in 1999, provides landowners with a tool to meet deer management objectives on their properties, which, in turn, increased antlerless deer hunting opportunities on private lands and helped reduce deer damage to crops or forest resources.

Several steps were taken to simplify the method by which hunters and trappers can obtain permits and licenses. DEC modernized and simplified hunting and trapping regulations to encourage increased participation, especially by our youth. They completed the development and implementation of a computerized point of sale licensing system that delivers greater convenience and service to license buyers.

The agency has enhanced opportunities for both consumptive and non-consumptive natural resource users by acquiring land throughout the State. Over 50,000 acres of wildlife habitat were acquired or created for public wildlife recreation benefits. Thirteen new facilities were developed and

42 new land parcels were opened for public use of wildlife through partnerships. Seven new cooperative agreements were negotiated for the Fish and Wildlife Management Act (FWMA) Program statewide, opening an additional 1,178 acres for public hunting. Wildlife observation improvements were made on seven WMAs and all WMAs were maintained to provide access to the land by the public. DEC and New York City's Department of Environmental Protection partnered to open several thousand acres of New York City watershed lands to new hunting and hiking opportunities. DEC spent \$200 million to acquire 260,000 acres of open space for spectacular properties such as Sterling Forest®, the Champion Lands, Whitney Park, the Lundy Estate, Northern Montezuma Wetlands, the Long Island Pine Barrens and Motor Island (Buffalo, New York). Finally, the agency opened more than 225,000 acres of formerly private lands to public access for hunting, fishing and trapping.

DEC continued its partnership and involvement with the International Association of Fish and Wildlife Agencies in trap testing and the development of "Best Management Practices" to improve traps and trapping methods to maintain and improve welfare among captured animals. Also, to insure that regulated trapping continues to occur as a legitimate outdoor activity and critically important wildlife management tool. Finally, more than 1,500 pages of content have been developed for DEC's website providing continuous access to information on fish and wildlife programs, licenses, permits, regulations, facilities and other material to meet the needs of fish and wildlife enthusiasts.

### Actions

- Design recreation facilities so as not to diminish wildlife values.
- Attract wildlife to places where people are most likely to enjoy them.
- Disseminate information in the form of brochures or signs that may be useful to recreationists. Information might be provided at trail heads for hikers or cross country skiers or at access points for boaters and canoeists, on the wildlife that may be observed.
- Educate the public on how to identify wildlife observation opportunities.
- Develop a program for providing information and education to the public about wildlife observation and study, including such activities as:
  - Provide viewing guide books and maps.
  - Enhance viewing opportunities by increasing/enhancing access sites and parking lots, trails, blinds and observation towers.
  - Provide information about practical actions for backyard wildlife, including vegetation management.
  - Develop recreational products, guides, cards, games, etc.
- Develop such observation and interpretive facilities as parking lots, trails, boardwalks, observation towers and blinds.
- Develop opportunities for wildlife observation and information about observation opportunities in and near population centers.
- Continue to provide State forests, multiple use areas, the Catskill and Adirondack Forest Preserves as well as wildlife management areas to help meet the need for public access to wildlife resources.
- Maintain and develop new cooperative agreements with landowners under the Fish and Wildlife Management Act, to provide public access to private lands for recreation purposes.
- Provide educational and training opportunities for hunters, trappers and wildlife recreationists.
- Improve trap design and participation in international efforts to establish humane trap standards.
- Continue the wildlife observation program.
- Conduct a comprehensive survey of wildlife users.
- Enlist people in wildlife conservation activities, from participating in surveys of wildlife to constructing nest boxes.
- Respond to legal and public challenges to hunting, trapping and other forms of wildlife-related recreation.

### Goal

Meet the public's desire for various indirect benefits from wildlife.

### Accomplishments

BOW maintains ethical and responsible opportunities for the public to participate in direct and indirect use of the wildlife resource through development of a strong land ethic. DEC encourages ethics and establishes regulations to introduce new responsible use opportunities or to prohibit certain uses of wildlife/practices, and to accommodate new technologies and changing societal attitudes. The agency also promotes ethical and responsible use opportunities based upon factors such as potential to directly harm targeted or other wildlife populations, commonly accepted "fair chase" behavior, enforceability of rules governing allowed uses, public safety and public health. DEC reports to the public and the public record on a regular basis not only to ensure a well-informed citizenry but to actively promote ethical and responsible use of wildlife. For example, improving the communications network to increase the scale of home rule as it applies to developing a working "ethical and responsible" use of wildlife (e.g., Hunter Safety Report).

One method by which BOW attempts to achieve this goal is through the Becoming an Outdoors-Woman Program. The program received the New York State Conservation Council's award in 1998 for New York State Outdoor

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Education Program of the Year. This and Beyond Becoming and Outdoors-Woman provide women with information, encouragement and hands-on instruction in outdoor skills (DEC, 2008).

### Actions

- Take into account the multiple benefits and harms of wildlife and wildlife-related recreation on local and statewide economies.

### Goal

Minimize human suffering caused by wildlife or users of wildlife.

### Accomplishments

In some cases, wildlife populations are inadequate to meet human demands (e.g., restoration of species). In other cases, however, wildlife populations need active management to control their populations. Wildlife populations may increase in such a way that they become a nuisance, or even to the point where they compromise public safety (e.g., deer-auto collisions, crop damage, and disease). To address this problem BOW has developed a statewide database on nuisance wildlife trends (beaver, deer, geese, bear, and waterfowl). BOW offices receive an estimated 20,000 calls annually from the public reporting nuisance wildlife problems and conflicts with wildlife. The aggressive monitoring of the species most commonly involved in wildlife damage incidents (i.e., Canada geese, white-tailed deer, beaver, black bear, and double-crested cormorants) required the issuance of special permits to control the population directly causing the damage. In the case of Canada geese and cormorants, federal permits are also required. An indirect way in which the agency deals with nuisance wildlife is through education of the public.

Wildlife may pose a threat to the public when their populations increase beyond a tolerable level, but wildlife users may also negatively impact the

public. BOW invests time and effort in minimizing the detrimental impacts of natural resource user groups on the public through education, dissemination of information, and regulation and rule setting. Evidence of their success can be seen in the decline of hunting related accidents; injuries are extremely rare and have been declining for decades. The 2003 season was the safest hunting year recorded, with only 32 hunting related injuries. The 2006 season had 35 shooting incidents, the fourth lowest since records have been kept. The rate of accidents has declined from 19 per 100,000 hunters to 6.3 per 100,000 hunters (DEC, 2008).

### Actions

- Minimize human suffering caused by recreation users of wildlife, including; vandalism, littering, trespassing, disease, and danger.

## Fisheries

The State's freshwater resources provide recreational fishing benefits to nearly one million licensed anglers that enjoy over 20 million fishing trips each year. Additionally, hundreds of thousands of young people, under age 16 are introduced to the State's outdoor-recreational opportunities through fishing activities without any licensing requirements. The State's 4 million acres of lakes and ponds and 70,000 miles of rivers and streams support abundant and diverse fish populations that offer a great range of recreational options. Trophy-size salmon, muskellunge and striped bass are available in Lake Ontario, the St. Lawrence River and the Hudson River respectively. Many waters across the State provide trout, walleye, bass and northern pike fishing of a quality that is notable nationwide, while excellent panfish stocks provide both sport and table fare to all levels of angling expertise. The State also offers quality experiences for all types of angling techniques and preferences. These include boat trolling for salmon, isolated pond fishing for native brook

trout, wading for trout in 15,000 miles of stream and float or shore fishing for smallmouth bass in over 50,000 miles of warm-water streams and rivers. In addition, the State has thousands of lakes and ponds that offer many species of game and panfish via ice fishing, shore fishing, rowboat, bass-boat and cabin cruiser access.

DEC's overall fisheries program mission is to maintain the quantity and quality of the State's fisheries resources and recreational benefits for future generations. The following goals and action statements are essential in order to accomplish this mission.

### Goal

To protect existing fish habitats

### Actions

- Review permit applications, environmental impact statements and industrial licensing proposals received by DEC.
- Provide technical consultation to other DEC, State, and Federal agencies.

### Goal

To maintain an accurate fisheries resource inventory.

### Description

Lakes and streams are sampled to assess the nature and status of fish populations which, in turn, aid in the protection of habitats and in determining harvesting regulations and stocking needs. Many large and prominent recreational waters require frequent or annual fisheries monitoring so that management can be optimized and potential resource problems can be avoided.

### Actions

- Continue monitoring and developing management actions related to the ecological and fishery dynamics

of the Great Lakes, Finger Lakes, Hudson River, Oneida Lake, Lake Champlain, Chautauqua Lake and other major resource components.

- Complete the trout fishery and aquatic habitat assessments within the Beaverkill/ Willowemoc Creek watershed. Develop and implement long-term watershed management practices to enhance the wild trout component and overall quality of this fishery.
- Complete survey and reassessment of statewide trout stream stocking needs.
- Accelerate the Endangered Fisheries Project to monitor the status and the continued occurrence of 19 rare fish species identified in the State. Foster recovery and restoration efforts for lake sturgeon, round whitefish, and paddlefish.

### *Goal*

To enhance or restore wild fish populations or directly create and maintain sportfishing through stocking and habitat management opportunities.

### *Description*

The State's large and diverse sportfishing demand can only be supported by a substantial fish stocking program. Over 10 million trout and salmon fry, fingerlings or yearlings are stocked into the State's cold water streams and lakes every year. Warm water resources are augmented by 150 million walleye fry, 300,000 walleye fingerlings, 100,000 tiger muskellunge fingerlings and 40,000 pure muskellunge fingerlings. Fisheries management objectives depend greatly on continued maintenance of the State's 12 fish hatcheries.

### *Actions*

- Implement improved trout stocking guidelines to enhance the efficient use of limited trout production capabilities.
- Accelerate implementation of a statewide plan to restore and

expand self-sustaining walleye fisheries by bringing the new walleye fingerling hatchery up to full production and increasing production from hatchery walleye ponds.

- Initiate directed panfish management projects to maintain and enhance these increasingly targeted fisheries.
- Restore and perpetuate eleven identified heritage strain brook trout stocks.
- Implement plans which enhance stream trout fishery resources in the Delaware River System.

### *Goal*

To optimize use of fisheries resources through public information and education programs.

### *Actions*

- Expand efforts to provide aquatic resource/angling education for the State's youth and other non-anglers, focusing particularly in urban and suburban areas.
- Continue using "Free Fishing Days" and events and DEC's website ([www.dec.ny.gov](http://www.dec.ny.gov)). Enhance the information available online and create a GIS-based recreational website indicating available fishing opportunities and the location, and characteristics of public access to these opportunities.

### *Goal*

To establish and maintain facilities to provide optimal, safe and convenient public access to New York's waters.

### *Description*

In order to realize the recreational benefits which can be derived from New York's vast and diverse aquatic resources, public access to these resources must be established and maintained. Since 1935, DEC has been acquiring Public Fishing Rights (PFR) Easements along the bed and banks of the State's major trout streams, to allow

the public walking/wading access, for the purpose of fishing only. To date, DEC has acquired 1,300 miles of such easements along 400 trout streams across the State. Many waters currently have adequate public access sites and facilities, but this infrastructure needs to be maintained and enhanced for safety and to comply with requirements such as the Americans with Disabilities Act. Other waters which could provide public recreational benefits currently offer no (or very limited) opportunities for public enjoyment due to a lack of access to the waters.

### *Actions*

- Acquire and develop public access sites throughout New York State as part of a network of safe and conveniently located access opportunities.
- Modernize the existing network of over 325 boat and fishing access sites across the State.
- Construct new boat launch sites on property already State-owned.
- Continue to expand the Public Fishing Rights Easement network, providing walking and wading access to stream beds and banks for the purpose of fishing only.
- Improve shoreline fishing opportunities by the addition of accessible fish piers and other shoreline improvements at existing state access facilities and through cooperative arrangements with municipalities and other public waterfront land-owners.

# Invasive Species

Chapter 324 of the Laws of New York of 2003 called for an Invasive Species Task Force (ISTF) to explore the invasive species issue and to provide recommendations to the Governor and the Legislature. The Final Report of the ISTF, completed in November 2005, included 12 Recommendations. The first recommendation was to create a permanent coordinating body. Chapter 674 of the Laws of New York of 2007, viz. ECL Article 9, Title 17 creates such a body – the New York State Invasive Species Council (ISC) – representing 9 State agencies and consulting with a multi-stakeholder Invasive Species Advisory Committee - representing a breadth of conservation, business, academia and landowner interests.

Among the other 11 recommendations of the ISTF, and the status of implementation, are the following:

- Prepare and implement a comprehensive invasive species management plan. The first phase of this comprehensive plan, to scope out the necessary elements for such a plan, will be undertaken in 2008.
- Allocate appropriate resources to invasive species efforts. This is being implemented through the establishment of the Office of Invasive Species (see below) and supporting the core functions of eight grass-roots Partnerships for Invasive Species Management (PRISMs) around the State to ensure prevention and rapid response to new invasives.
- Establish a comprehensive education and outreach effort. This is being implemented through Cornell Cooperative Extension.
- Integrate databases and information clearinghouses. This statewide database-clearinghouse is being established, through Sea Grant's

existing aquatic nuisance species online information clearinghouse that will be expanded to terrestrial species, integrated with an expanded locational database under NY NHP's existing biodiversity database through NatureServe.

- Establish an independent Center for Invasive Species Research. An Institute for Invasive Species Research will be established at Cornell University which will support on-going biological control studies there.
- Begin funding efforts to clearly demonstrate the possibilities for successful invasive species management. Grants to municipalities and not-for-profit organizations to eradicate problem aquatic species were awarded in 2006 and 2007, and terrestrial grants were offered in 2007 to the same entities as well as state agencies. Another demonstration project being implemented is the development of "clean stock" at the New York State Agricultural Experiment Station to provide fruit growers with a virus-free source of planting stock.

The ISC will coordinate statewide efforts to control invasive species. The Council is co-chaired by DEC and the Department of Agriculture and Markets, and has seven other member agencies: DOT, OPRHP, Education, DOS, the Thruway Authority, the Canal Corporation and the Adirondack Park Agency.

The law also established an advisory council on invasive species, with members to include: the New York Farm Bureau, the NYS Nursery and Landscape Association, the Empire State Marine Trades Association, the NYS Federation of Lake Associations, The Nature Conservancy, the Biodiversity Research Institute, Cornell University, the Darrin Freshwater Institute, Sea Grant, the NYS Association of Conservation Districts, the NYNHP, SUNY College of Environmental Science and Forestry, NY City Department of Environmental

Protection, and numerous other entities representing municipal government, industries affected by regulation, public interest groups and other governmental interests.

A new Office of Invasive Species will bring together biologists and foresters to develop ways to combat the problem, and work with universities, other state agencies and non-profit organizations to support research and raise public awareness. This office, housed in DEC, will help bring together all these efforts. The new office also will work with the federal government, will help the ISC create a plan by 2010 to control plants, animals and insects that come into New York, and will provide support for the ISC.

Eight PRISMs have been formed or are forming to help combat invasive species. These PRISMs are shown in Figure \_\_. The partnerships will be modeled after Cooperative Weed Management Areas formed in several western states and target animal and pathogens in addition to invasive plants. DEC will award contracts to a fiscal/administrative sponsor, which may be a non-profit organization, a government entity, university or private business, for each PRISM. A diverse stakeholder base, including state agencies, resource managers, nongovernmental organizations, industry, resource users and others will comprise a PRISM. EPF grants will be provided to the PRISMs to support core functions. These functions include:

- Planning regional invasive species management
- Developing early detection and rapid response capacity
- Implementing eradication projects
- Educating - in cooperation with DEC-contracted Education and Outreach providers
- Coordinating PRISM partners
- Recruiting and training volunteers
- Supporting research through citizen science

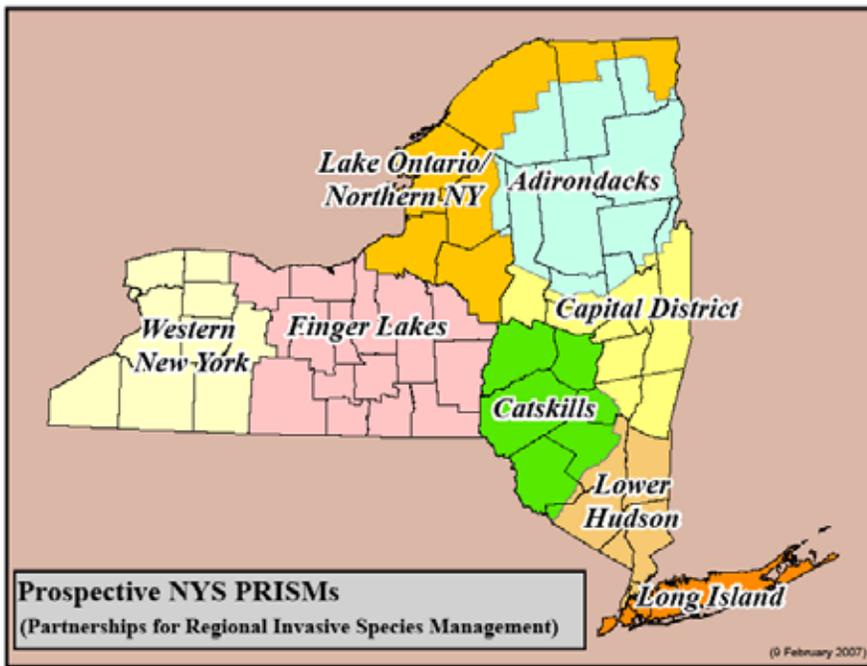


Figure 7.5 - Partnerships for Regional Invasive Species Management

- Promote the acquisition and maintenance of open space and waterfront access in minority and low-income communities by municipal, public and private entities;
- Encourage the dedication of vacant private and publicly owned land in minority and low-income communities for outdoor recreational opportunities;
- Ensure that the needs of minority and low-income communities are consistently considered throughout activities related to preservation, planning and development.

## Resources

Adequate resources, including staff, training, equipment and funding, are needed to create and maintain outdoor recreational opportunities in minority and low-income communities and subsistence fishing communities. The following should be considered:

- Collaborate with other federal, state and local government officials to make resources available to government and non-governmental organizations for outdoor recreational opportunities, preservation, enhancement and maintenance in minority and low-income communities;
- Allocate resources directly to nonprofit organizations capable of undertaking stewardship of parks, open space and outdoor recreational programs in minority and low-income communities;
- Continue to fund existing and new grant programs related to outdoor recreational opportunities, and enhance grant award criteria to ensure the equitable distribution of grant funds to minority and low-income communities. Ensure that grant eligibility criteria are sensitive to the needs of minority and low-income communities, for instance eliminate monetary match requirements when possible, simplify the grant application process,

# Environmental Justice

Promoting outdoor recreational opportunities is essential to the quality of life, health and enjoyment of New York's diverse communities. Unfortunately, many communities, especially minority and low-income communities and subsistence fishing communities, have inadequate access to these opportunities. This section includes several recommendations to address this inequity.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Environmental justice principles recognize that some communities, especially minority and low-income communities are disproportionately exposed to negative environmental impacts, have been historically absent from environmental decision-making affecting their community, and may not receive equitable benefits of environmental programs.

Environmental justice efforts focus on improving the environment in these communities.

## Equitable Distribution

Historically, outdoor recreational opportunities in minority and low-income communities have been limited for various reasons including limitations on available space, proximity to industrial uses that preclude or conflict with outdoor recreational uses, limitations on resources, etc. In order to improve the quality of life and promote the equitable distribution of outdoor recreational opportunities in minority and low-income communities, the following should be considered:

- Identify, acquire and maintain open space, including waterfront space in minority and low-income communities;
- Use demographic data relating to minority and low-income populations in base and overlay maps to propose open space acquisition projects and outdoor recreational opportunities in minority and low-income communities;

## Statewide Programs

provide adequate and timely notification of grant availability, etc.

## Accessibility

Outdoor recreational opportunities must be accessible to minority and low-income communities. Special considerations for minority and low-income populations include: access to open space within close proximity of minority and low-income communities; availability of public transportation to existing open space; elimination of obstructions such as roadways, fences and environmental hazards that prohibit access to existing open space; and notification to minority and low-income communities of outdoor recreational opportunities. Waterfront access in minority or low-income communities is particularly critical as waterfronts in these communities are often industrialized, classified as a brownfield, or gated, prohibiting access to this natural resource.

- Ensure that open space is acquired within a half mile of minority and low-income communities and that recreational opportunities are promoted in the open space;
- Identify opportunities for waterfront access in minority and low-income communities, including linear waterfront access for esplanades, parks, trails and greenways; and single points of access, such as for fishing piers or boat launch sites.
- Promote transportation connecting communities to outdoor recreational opportunities including low cost and easily accessible public transportation.
- Ensure a pollution free environment in minority and low-income communities in order to encourage residents to participate in outdoor recreational opportunities.
- Ensure that residents in minority and low-income communities are aware of outdoor recreational opportunities by publicizing opportunities locally
- Educate children and adults in minority and low-income communities

about various outdoor recreational opportunities and expose children to such opportunities in the school curriculum such that they become familiar with them, foster an appreciation and interest in them, and consider them an accessible form of recreation.

## Community Input

Community input is essential to identify outdoor recreational needs and promote sustainable open spaces that benefit the community. Input from minority and low-income communities is especially important, as these populations have historically been absent from the decision-making affecting their environment. The following should be considered:

- Ensure minority and low-income community representation in the development of the SCORP and resulting activities related to preservation, planning and development;
- Establish partnerships with minority and low-income community organizations during the planning, decision-making and implementation of the SCORP, as these community organizations have first hand knowledge of community needs.

## Partnership

Partnerships, including minority and low-income community members, governmental bodies and other organizations, foster respect and trust between different interests, encourage development of a shared vision, support collaborative decision-making and collate resources. Partnerships may also foster innovative approaches to outdoor recreational opportunities and stewardship. The following should be considered:

- Encourage partnerships that include minority and low-income community representatives during the planning, decision-making and implementation of the SCORP;

- Consider contracts or agreements with local nonprofit and community-based organizations to ensure the management and upkeep of neighborhood parks, bikeways, trails and other community open space.

## Stewardship

Mobilizing minority and low-income residents as stewards to establish outdoor recreation programs, and care for local parks and open space promotes sustainability and empowers the community. Stewardship programs are especially important to minority and low-income communities because they promote increased community involvement, empowerment and environmental educational benefits. Community-based stewardship programs also serve as a powerful resource when municipalities lack staff or funding to operate and maintain existing parks and other open spaces. In order for such stewardship programs to succeed, support in the form of training, funding, staff and other resources are needed. The following should be considered:

- Promote community stewardship programs, including funding, training and resources, to help minority and low-income community residents manage local open space and establish outdoor recreational programs;
- Collaborate with other government and non government organizations to establish a state-managed network to exchange information, evaluate programs, and sustain stewardship programs.

## Community Greening

Community greening efforts, such as tree planting and community gardens, are valuable to minority and low-income communities particularly in urban areas where green open space is scarce. Community greening offers a significant impact with smaller scale efforts. It can

help to revitalize and beautify neighborhoods, and at the same time - serve as carbon sinks to reduce local carbon dioxide levels; help alleviate urban heat center problems associated with concrete and stone structures, and serve as a filtration system for storm water. In addition to being beneficial to the environment, such activities foster good stewardship and community commitment from which recreational, cultural, and economic benefits will follow. Residential greening in minority and low-income communities is critical since often these neighborhoods have limited open space or limited access to existing open space, and may have limited free time in which to visit accessible open space. The following should be considered:

- Promote community greening efforts;
- Encourage the creation and preservation of community gardens.

## **Limited English Proficiency / English as a second language**

New York State is rich in diversity and multi-cultural backgrounds. Accommodating people with limited English proficiency or people for whom English is a second language is an important consideration in addressing environmental justice issues, since some minority communities have Non-English speaking or limited English-speaking populations. The language barrier may prevent these residents from accessing open space or enjoying recreational opportunities. This potential barrier should be considered when addressing open space issues. The following should be considered:

- Make accommodations for users with limited English proficiency including translation of pertinent informational brochures and signs relating to outdoor recreational opportunities, where helpful.

## **Brownfields**

The remediation of brownfields is essential to improve the environment in minority and low-income communities, particularly in urban areas where green open space is scarce. While brownfields require extensive remediation for human recreational use, the benefits of providing open space to minority and low-income communities will be significant, including improvement to quality of life. The surrounding community should be involved and well informed about the clean up efforts. The following should be considered:

- Promote brownfield remediation in minority and low-income communities with dedicated reuse for open space;
- Promote government initiatives such as the Environmental Restoration Program, and tax credit systems to support remediation efforts and transform brownfield areas into valuable community resources.

## **Subsistence Fishing**

Subsistence fishing for personal consumption or traditional/ceremonial purposes should be considered in the preservation, planning and development of outdoor recreational opportunities. Although subsistence fishing may not generally be covered under recreational opportunities, it is important to consider the two simultaneously in minority and low-income communities, since these communities are more likely to fish for subsistence rather than sport alone. The following should be considered:

- Identify species preference and ensure availability of healthy fish for consumption.
- Consider species preference of anglers in minority and low-income communities and links to levels of potential toxins. Studies show that subsistence fishing is more common among racial/ethnic minorities and minorities are potentially more exposed to contaminants found in fish such as methylmercury

- Identify potential toxins and educate anglers in minority and low-income communities of the dangers of consuming certain fish.
- Rely upon environmental justice advocates and community groups as a resource to help influence the development of outreach tools and informational signs to educate minority and low-income community residents.

# Department of State

## Conserving and Managing New York's Coastal and Inland Waterway Resources

New York's coast, the third longest in the nation, draws people to its shores. Over 15 million people, 85% of the State's population, live and work along our coastal waters--an area that accounts for 12% of the state's land mass. By 2010, an additional 700,000 people will join them.

The natural areas along New York's coast provide great diversity of fish and wildlife habitats, estuaries and deep water trenches, bluffs, barrier islands, and other natural protective features. Enormous economic benefits are derived from the coast each year. New York's commercial fishing industry, ports and marinas, and coastal farming areas contribute billions annually to the state's economy. The competing demands on our coastal area resources continue to threaten the natural and economic viability of the coast. New York's coastal zone management program was established to conserve and properly use coastal resources by managing competing demands along the coast.

The Division of Coastal Resources in the Department of State (DOS) works in partnership with local governments, community-based organizations, and state and federal agencies to better manage coastal resources and advance revitalization of waterfront communities. Division programs address waterfront redevelopment; expansion of visual and physical public access to the water; coastal resource protection, including habitats, water quality, and historic and scenic resources; and provision for water dependent uses, including recreational boating, fishing, and swimming. State and federal agency permitting, funding, and direct actions must be consistent with these purposes.

Major elements of these programs include the following:

### Local Waterfront Revitalization Program

Cities, towns, and villages along major coastal and inland waterways are encouraged to prepare a Local Waterfront Revitalization Program (LWRP) in cooperation with DOS. A LWRP is a locally prepared, comprehensive land and water use plan for a community's natural, public, working waterfront, and developed waterfront resources. It provides a comprehensive framework within which critical waterfront issues can be addressed. In partnership with the Division of Coastal Resources, a municipality develops community consensus regarding the future of its waterfront and refines state coastal policies to reflect local conditions and circumstances. As part of the preparation of a LWRP, a community identifies long term uses for its waterfront and an implementation strategy, including enacting or amending appropriate local development controls. Once approved by the New York Secretary of State and the federal Office of Coastal Resources Management, the LWRP serves to coordinate state and federal actions needed to achieve the community's goals for its waterfront.

A LWRP may contain a number of components addressing issues important to the community, including:

- waterfront redevelopment
- natural resource protection
- public access and recreation opportunities
- open space preservation
- erosion hazards management
- water quality protection
- habitat restoration

Harbor Management Plans (HMPs) are prepared as components of LWRPs to improve management of their harbors. HMPs take a hard look at the resources, conflicts, congestion and competition for space in New York's harbors and balance the interests of all uses of harbor resources. These plans consider local and regional needs and address issues related to commercial shipping and fishing, dredging, recreational boating and fishing, natural resource protection, and other matters affecting harbors.

HMPs provide the clear authority to rationally manage the wide range of harbor uses and activities. Through HMPs, the State and local governments cooperate to comprehensively plan for and manage harbor areas. The program expands municipal authority to regulate activities in, on, under or over the water by enabling certain municipalities to regulate structures and other uses in their harbor areas.

### Goals

Promote resource and habitat protection, community revitalization, enhanced public access and open space protection through the Local Waterfront Revitalization Program.

### Accomplishments

Currently, 225 waterfront communities throughout the State are preparing or have completed a LWRP. Since 2003, 12 LWRPs have been fully approved (for a total of 72) and 77 LWRPs are being

prepared. DOS has also completed two multi-media packages featuring a new web site - [www.nyswaterfronts.com](http://www.nyswaterfronts.com), guidebooks and video. One package examines "How to Make the Most of Your Waterfront" and the other is a guide to restoring abandoned buildings — "Opportunities Waiting to Happen."

### *Actions*

- Advance priority projects identified in LWRPs through planning, design and construction.
- Encourage additional communities to prepare and implement LWRPs.

## **Environmental Protection Fund Local Waterfront Revitalization Grants**

DOS provides grants to waterfront municipalities for a variety of planning, design and construction projects to protect and revitalize waterfront resources, including:

- Community Visioning and development of revitalization strategies;
- Completing or implementing a LWRP or HMP;
- Preparing or implementing a waterbody/watershed management plan;
- Urban waterfront redevelopment;
- Creating a Blueway Trail;
- NYS Coastal Resources Interpretive Program (NYSCRIP) signage programs.

The grants serve as a source of funding for communities to implement projects identified in a LWRP, as well as a means of enlisting new communities, to develop LWRPs.

### *Goals*

Continue to provide Environmental Protection Fund Local Waterfront Revitalization Programs grants to communities on an annual basis.

### *Accomplishments*

Since 2003, 439 grants totaling \$88 million have been awarded to waterfront communities through the Environmental Protection Fund Local Waterfront Revitalization Program.

### *Actions*

- Provide EPF LWRP funds to communities on an annual basis.
- Target EPF LWRP funds for priority resource protection and waterfront revitalization activities.
- Use EPF LWRP grants to advance priority projects identified in LWRPs through planning, design and construction.

## **Blueway Trail Plans**

Blueway trails are small boat and paddling routes that combine recreation, tourism and environmental awareness and allow users to travel to and between designated stops along the way for rest, overnight stays and linkages to land-based attractions, including community centers, heritage trails and sites, greenways, historic resources, and scenic by-ways. The process for developing blueway trails relies on intermunicipal cooperation with a high degree of participation from the private sector. Blueway trails are marketed as a regional attraction.

Municipalities may apply for grant funding from the Environmental Protection Fund Local Waterfront Revitalization Program to undertake the planning and physical development of blueway trails, including:

- identification of local and regional assets and attractions;
- route identification and assessment of facilities and infrastructure;
- planning, design and/or construction of small craft launch sites and infrastructure along an identified blueway trail; and

- development or implementation of blueway trail marketing and promotion strategies.

### *Goals*

Promote the development and implementation of blueway trail plans for coastal and inland waterways.

### *Accomplishments*

Blueway trail plans have been completed or are under preparation for the following waterways: Black River; Mohawk River; Raquette River; and Seneca River.

### *Actions*

- Provide technical assistance and funding through the EPF LWRP to promote new blueway trail plans and to advance implementation of existing blueway trail plans.

## **Regional Initiatives**

The Department of State has initiated a number of regional initiatives to better manage coastal resources for enhanced access, recreation and tourism-based economic development, waterfront revitalization and habitat protection. These initiatives include:

### **Long Island South Shore Estuary Reserve**

The Long Island South Shore Estuary Reserve Act established the reserve, called for its protection and prudent management, and created a council charged with preparation of a comprehensive management plan for the reserve. The reserve includes five of Long Island's south shore estuarine bays and the adjacent upland areas draining to them, and stretches from the western boundary of the Town of Hempstead to the middle of the Town of Southampton. The reserve is home to about 1.5 million people and is the anchor of the region's tourism, seafood, and recreation industries.

## Statewide Programs

The reserve's comprehensive management plan calls for a series of implementation actions to address key issues identified in the plan, including: reducing non-point and point sources of pollution; increasing harvest levels of hard clams; protecting and restoring coastal habitats; preserving open space; improving understanding of the ecosystem; increasing public use and tourism; sustaining water-dependent businesses and maritime centers; and heightening public awareness of the estuary.

### Goals

Continue implementation of priority actions called for in the 2001 Long Island South Shore Estuary Reserve Comprehensive Management Plan.

### Accomplishments

Since 2003, more than 80 state-assisted projects have been initiated or completed to improve the health of Long Island's South Shore estuaries. Nearly \$9 million in State funds have leveraged a comparable amount of local match.

### Actions

- Develop watershed management plans for priority tributaries and their watersheds.
- Expand hard clam hatcheries and grow-out facilities, and identify additional shellfish spawner sanctuaries based on feasibility assessments.
- Broaden efforts to identify potential sites for wetland restoration and invasive species removal.
- Develop a Reserve-wide strategy for open space protection.

## Long Island Sound Coastal Management Program

The Long Island Sound Coastal Management Program (CMP) was approved for New York State in January 1999. The program encompasses 304 miles of shoreline in Westchester County, the Bronx, Queens, and Nassau and Suffolk counties, and nearly 1.5 million people. Regionally specific coastal policies were developed which reflect the unique environmental, economic, and social characteristics of the Sound shoreline.

The policies focus on protecting and expanding public access and visual access opportunities along the Sound shore, which are currently limited; encouraging revitalization of developed centers; protecting and restoring natural resources and open spaces, particularly those areas of regional importance; and encouraging water-dependent uses in centers of maritime activity. The Long Island Sound Coastal Advisory Commission was created by the Legislature to recommend ways to implement the Long Island Sound Coastal Management Program.

### Goals

A Long Island Sound coastal area enriched by enhancing community character, reclaiming the quality of natural resources, reinvigorating the working waterfront, and connecting people to the Sound.

### Accomplishments

Since 2003, more than 50 state-assisted projects have been initiated in Long Island Sound communities for waterfront revitalization, public access improvements, and natural resource protection. This represents a State and local investment in the Long Island Sound of over \$18 million.

### Actions

- Develop partnerships between local communities and land owners to protect and enhance important natural areas on the Long Island Sound.
- Document unprotected, undeveloped open space along Long Island's north shore, and identify significant natural features.

## Scenic Resources

New York State has long recognized the importance of scenic resources. The interaction of man with the landscape has made New York's coast a visually exciting and valued place. Designation of Scenic Areas of Statewide Significance by DOS provides additional protection for coastal landscapes that are recognized for their importance in the natural, cultural and historic significance to the State.

Six Scenic Areas of Statewide Significance have been designated along the Hudson River, covering more than 50% of its shoreline. Each scenic area encompasses unique, highly scenic landscapes which are accessible to the public and recognized for their scenic quality. The scenic areas include a fiord in the Hudson Highlands, an impressive collection of great estates along the Hudson River's midsection, the landscape where Hudson River School painters Thomas Cole and Frederic Church made their homes, and the pastoral landscape south of the Capital region.

Designation provides special protection to the landscapes. Narratives for each scenic area describe which landscape elements should be protected and the types of actions that could impair them. Federal and state agencies must avoid permitting, funding, or undertaking actions that would impair the landscape's scenic quality. In addition, municipalities can use their local land use authority to protect scenic resources, such as through a LWRP.

## *Goals*

Protect scenic resources in coastal and inland waterway areas.

## *Accomplishments*

The East Hampton Scenic Area of Statewide Significance is being developed in partnership with the Town of East Hampton. The final approval of the SASS is expected to occur during the summer of 2007.

Protection of scenic resources in the Catskill-Olana SASS and the Columbia-Greene North SASS were a major factor in the Division's Objection to Consistency Certification for a major cement manufacturing facility in 2005. The application for the facility was subsequently withdrawn.

## *Actions*

- Ensure that the scenic landscape elements in designated SASSs are protected from potential impairments.
- Promote scenic resource protection at the local level by providing technical assistance and funding through the EPF LWRP for scenic resource inventories, assessments, local laws and other techniques.

## **Coastal Habitats**

Many habitats that are vital to the survival of New York's coastal fish and wildlife resources exist along New York's 3,200 mile shoreline. To protect these important natural areas, DOS, in cooperation with DEC, has designated 245 Significant Coastal Fish and Wildlife Habitats (SCFWHs) across the State. The designations are designed to protect and offer guidance on management activities within the habitats with important natural resource values, including recreational fishing and other passive natural resource-related activities.

DOS works with other state and federal agencies, local governments,

and concerned citizens to restore and maintain significant coastal fish and wildlife habitats, primarily through projects funded through EPF LWRP grants.

## *Goals:*

Protect, preserve and where practical restore the viability of state designated Significant Coastal Fish and Wildlife Habitats.

## *Accomplishments:*

Updates of the North and South Shore of Long Island Significant Coastal Fish and Wildlife Habitats narratives and maps were completed, which will result in improved management decisions.

Numerous Bond Act and EPF contracts involving water quality improvements and aquatic habitat restoration including tidal wetlands, beach and dune habitats, and riparian corridors were administered.

Natural resource management projects that enhance open space attributes and improve fish and wildlife resources were administered.

Partnerships with the U.S. Army Corps of Engineers, the Long Island Wetland Restoration Initiative, and the Long Island Sound CMP Interagency Habitat Restoration Workgroup on environmental restoration issues were maintained.

## *Actions:*

- Continue to update the Significant Coastal Fish and Wildlife Habitat narratives and maps for the Hudson River and the Great Lakes.
- Provide technical assistance and other information on designated SCFWHs and on habitat restoration and planning to municipalities, state and federal agencies, and others.
- Continue participate in the regional planning and implementation activities of the Sea Grant Program

Advisory Council, the Lake Ontario Coastal Initiative, Jamaica Bay Wetland Restoration workgroup, Lake Ontario Lakewide Management Plan committee, and the Great Lakes Research Consortium.

- Continue participation in regional restoration efforts, such as the Suffolk County Vector Control Steering and Technical Advisory Committees.

## **Brownfield Opportunity Areas**

The Brownfield Opportunity Areas (BOA) Program provides communities with significant land use and redevelopment planning tools to revitalize areas affected by brownfields, abandoned or vacant properties. A "brownfield" or "brownfield site" is defined as any real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant. The end product is a community driven revitalization plan and implementation strategy to return unproductive land back to use while simultaneously improving environmental quality and revitalizing the affected area. An objective is to enable communities to plan for the reuse and redevelopment of brownfields on an area-wide basis, as opposed to dealing with brownfields and other unproductive parcels on a site by site basis.

The Brownfield Opportunity Areas Program is being administered by the Departments of State and Environmental Conservation. This program blends the Department of State's expertise in working in partnership with communities across New York State on a variety of community based planning projects with the Department of Environmental Conservation's expertise in investigating and cleaning up sites.

The BOA program enables communities to:

- Establish a revitalization plan and implementation strategy to foster desirable development with an em-

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phasis on strategic brownfield sites that are catalysts for revitalization.

- Foster the clean-up and reuse of brownfield sites through planning and site assessments at strategic brownfield sites.
- More quickly fulfill community development needs for new uses and businesses.
- Increase predictability for investors regarding the timing and costs for development projects.
- Identify opportunities to improve environmental quality through a variety of implementation projects.
- Enlist state agencies as partners to address a variety of issues related to economic development, improving environmental quality, and community revitalization.

### Goals:

Complete revitalization plans to improve and revitalize areas affected by brownfields and other underutilized sites by stimulating public sector and private sector investment.

### Accomplishments:

- In March 2005, funding was announced for 53 projects, totaling \$7.6 million. Many of these projects are progressing or nearing completion of Pre-Nomination or Nomination reports. In March 2008, funding was announced for an additional 50 projects, totaling \$7.2 million. Many grantees are starting their projects.
- Starting in October 2008, the Department of State now accepts applications through an open enrollment process. This enables applicants to submit applications for new, or to advance existing, projects at anytime during the year. With open enrollment, applicants are encouraged to contact the Department of State for pre-application meetings.
- 
- The Department of State, in partnership with the Department of En-

vironmental Conservation and State University of New York, launched the Community Seminar Series.

This series provides training to grantees to enhance: understanding of brownfield redevelopment and community revitalization; local capacity to administer and manage grants; and timely completion of planning and site assessment report products. Since the series started in 2006, 28 modules covering 10 topics were conducted. Additional training modules, focusing primarily on plan implementation, will be offered in 2009.

- As a result of the brownfield reform law of 2008, cleanup and redevelopment projects in BOA study areas that are undertaken through the Brownfield Cleanup Program will now receive an additional boost of two percent in tangible property tax credits, provided the redevelopment is consistent with the goals and priorities of the designated BOA.

### Actions:

- Assist program grantees by providing timely technical assistance to guide the preparation and completion of their BOA Program funded plans.
- Enlist local, state, and federal agencies and private-sector interests in the planning process so they have a clear understanding of the challenges, opportunities, and implementation needs associated with revitalizing affected areas.

## Oceans and Great Lakes

The New York Ocean and Great Lakes Ecosystem Conservation Act (Article 14 of the NYS ECL) was enacted in 2006 to establish policy and principles to guide management of the State's ocean and coastal ecosystems. The Act creates a New York Ocean and Great Lakes Ecosystem Conservation Council made up of the nine agencies responsible for managing human activities. The

Council is responsible for developing recommendations on how to integrate ecosystem-based management with the programs, institutions and activities which affect our ocean and coastal ecosystems. DEC is chair and DOS is staff to the Council, which also has the following member agencies: OPRHP, Department of Agriculture and Markets, Department of Economic Development, OGS, DOT, NYSERDA, and SUNY.

As described in Chapter 4, ecosystem-based management is an adaptive approach to managing human activities to ensure the coexistence of healthy, fully functioning ecosystems and human communities. The Ocean and Great Lakes Ecosystem Conservation Act calls for the integration and coordination of EBM with existing laws and programs and to develop guidelines for Agency programs and activities that advance ecosystem-based management. Coastal ecosystems are critical to NYS environmental and economic security, and are integral to the states high quality of life, culture and recreation. Coastal ecosystems are necessary to support the state's human and wildlife populations.

As outlined in the Act, governance of New York's ecosystems shall be guided by the following principles: 1) ensure that activities in and uses of coastal resources are sustainable so that ecological health and integrity is maintained, 2) increase understanding of coastal systems, 3) inform decisions based on good science that recognizes ecosystems and the interconnections among land, air and water, 4) ensure that caution is applied when risks are uncertain, and 5) involve broad public participation in planning and decision making. Ecosystem-based management can ensure healthy, productive and resilient ecosystems which deliver the resources people want and need.

The following six components are being used to apply EBM in NYS: 1) place based focus; 2) scientific foundation for decision making; 3) measurable

objectives to direct and evaluate performance; 4) adaptive management to respond to new knowledge; 5) recognition of interconnections within and amongst ecosystems; and; 6) involvement of stakeholders to advance EBM.

Under the Act, every Council member agency is required to provide an implementation report on its EBM related activities and to report on current and recommended programmatic contributions to EBM in NYS.

### *Goals:*

Integrate ecosystem-based management with the programs, institutions and activities which affect coastal ecosystems and their watersheds.

### *Accomplishments:*

Completed draft framework and recommendations to advance ecosystem-based management.

Completing plans and implementation projects for the Long Island's Great South Bay and Eastern Lake Ontario EBM demonstration areas.

Completed five public dialogues around the State to introduce ecosystem-based management concepts and distributed an outreach summary report.

Completed a catalogue of more than 800 existing digital data sets and identified data gaps that must be filled to support ecosystem-based management processes.

Created a web-based interactive mapping tool and data portal, the New York Oceans and Great Lakes Atlas, for use by state and local government, partners and the public.

Completed development of a statewide research agenda as called for in the Act.

### *Actions:*

The Act requires the Council to take the following Actions:

- Prepare a report to the Governor and Legislature by November 2008 which includes the following:
  - Demonstrate improvements that can be accomplished in eastern Lake Ontario and Long Island Great South Bay through ecosystem-based management;
  - Define executive and legislative actions necessary to integrate ecosystem-based management with existing programs needed to advance the coastal ecosystem principles;
  - Include a plan, schedule, and funding opportunities for implementation of executive actions necessary to advance the policy and principles of ecosystem-based management;
  - Create an ocean and coastal resources atlas to make information available to the public and decision makers;
  - Establish a research agenda that identifies priority issues in need of further research to enhance ecosystem-based management;
  - Recommend actions to preserve, restore and protect submerged aquatic vegetation populations and meadows; and
  - Identify opportunities for regional ecosystem-based management with neighboring states and the federal government.

## **Coastal and Inland Consistency**

Following passage of the Coastal Zone Management Act (CZMA), New York State developed a Coastal Management Program (CMP) and enacted implementing legislation (Waterfront Revitalization and Coastal Resources Act) in 1981. The CZMA

requires that each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.

Consistency review is the decision-making process through which proposed actions and activities are determined to be consistent or inconsistent with the coastal policies of the New York State Coastal Management Program or approved LWRPs. This process includes and affects federal agencies, the Department of State and its Division of Coastal Resources as the State's designated coastal management agency, other State agencies, and municipalities with approved LWRPs.

Unlike traditional permit or certification programs, the Division does not issue or deny a permit or certification. The Division instead reviews activities being considered by agencies in the coastal area, and determines whether the activity is consistent or inconsistent with the coastal policies of the State. If an activity is determined to be consistent with State coastal policies, the federal agency involved can proceed to authorize or undertake the action guided by DOS's decision. If an activity is determined to be inconsistent with State coastal policies, the federal agency is not allowed to proceed to authorize or undertake the action.

State agencies are also required to follow certain consistency review procedures for direct or funding actions and for any action, including permits, for which they are an involved or lead agency pursuant to the State Environmental Quality Review Act and for which an Environmental Impact Statement may be necessary. This requirement applies in the State's coastal zone and in any inland communities with an approved LWRP.

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### Goals:

Ensure that all actions by state and federal agencies are consistent with State coastal policies.

### Accomplishments:

Between 2004 and 2006 the Division of Coastal Resources reviewed over 3000 applications for federal agency authorizations, direct federal agency activities, and proposed federal funding. Of these activities, nearly 500 were modified, withdrawn or rejected based on the review of their consistency with the State's coastal policies.

### Actions:

- Continue to review all actions subject to federal consistency provisions.
- Improve state agency utilization of state coastal policies in evaluating potential impacts of their activities on coastal resources and uses.

## Watershed Management Plans

New York's Coastal Nonpoint Pollution Control Program was jointly prepared by the Departments of State and Environmental Conservation and approved by NOAA and EPA in December 2006 pursuant to the Coastal Zone Management Reauthorization Amendments (CZARA, Section 6217). The Coastal Nonpoint Program implements a set of management measures to protect and restore coastal water quality. New York's Coastal Nonpoint Pollution Control Program boundary includes all lands draining to the State's coastal waters and encompasses over 60 percent of the State.

Watershed management plans are an important means of implementing the State's Coastal Nonpoint Program. A watershed management plan is a comprehensive plan to protect and restore specific waterbodies and their watersheds by identifying and prioritizing

land uses and capital projects to reduce point and non-point source pollution, and protect or restore water quality, tributary corridors and aquatic habitats. Because watersheds generally include land within more than one municipal jurisdiction, watershed protection requires the preparation of cooperative, intermunicipal plans.

Watershed management plans include: a characterization of the watershed; identification of pollution sources, sources of water quality impairment, and potential threats to water quality; and identification of management strategies and techniques for the protection and restoration of water quality. Watershed management plans also include community education and outreach on water quality and watershed protection issues.

Watershed management is a key strategy in protecting and restoring New York's coastal waters and in revitalizing the communities within each watershed. Watershed management offers opportunities to improve stewardship of water related resources, such as by concentrating development where intensity is most appropriate, avoiding more sensitive areas, and instituting practices which reduce the impacts of existing pollution.

### Goals:

Promote the development of watershed management plans for coastal and inland waterways.

### Accomplishments:

Across New York State there are 240 communities, covering 5,000 square miles of watershed, that have prepared or are working on intermunicipal watershed plans, including: Lake George; Hempstead Harbor; Manhasset Bay; Conesus Lake; Cayuga Lake; Canandaigua Lake; Brown's River and Green's Creek; Wappinger Creek; Chautauqua Lake; Lake Montauk;

Bronx River; Black Creek; Oatka Creek; Ausable River; and Honeyoe Lake. Since 1994, \$26 million has been invested in these areas from the EPF LWRP, the Clean Water/Clean Air Bond Act, and the Great Lakes Coastal Watershed Restoration Program funding managed by the Division.

In cooperation with DEC - Division of Water, the Division of Coastal Resources prepared a multi-media informational package to help communities prepare watershed management plans. The package, entitled "Watershed Plans: Protecting and Restoring Water Quality," includes a video, guidebook and website content.

### Actions:

- Provide technical assistance and funding through the EPF LWRP to promote new watershed plans and to advance implementation of existing watershed plans.

## NYS Department of State Division of Coastal Resources - Regional Initiatives

### Great Lakes

The Division of Coastal Resources is working in the Great Lakes region to revitalize communities with post-industrial legacies – by strengthening existing community centers, reclaiming brown-fields, and expanding public access. The Division is working with 31 communities within the region through the LWRP process; 27 of those communities have an approved LWRP. Communities in the region continue to revitalize their waterfronts by implementing public access improvements - as described in their LWRPs - providing new public access points, trails, and visitor-interpretation centers.

## **Lake Champlain**

DOS works with Lake Champlain communities to improve public access to the waterfront in order to enhance water-based recreation and tourism. An important component of waterfront revitalization efforts involves linking enhanced waterfront facilities to downtowns and Main Streets in order to strengthen the local economy.

DOS's Lake Champlain initiatives have also promoted regional cooperation among the waterfront communities. The Department sponsored the development of a regional waterfront revitalization program for the Lake Champlain shoreline of communities within Essex and Clinton counties. The program identified priority projects and actions needed to foster hamlet revitalization, improve waterfront access opportunities, and strengthen the region's resource-based tourism economy. The regional plan led to the implementation of many waterfront revitalization projects including: access improvements and downtown linkages in Port Henry; construction of a scenic pier and walkway in Rouses Point; and redevelopment of the former Canadian Pacific rail yard in Plattsburgh into a mixed-use development and waterfront park.

## **Hudson River Estuary**

Through its Local Waterfront Revitalization Program and Environmental Protection Fund grant program, the DOS works in collaboration with local governments, regional organizations, businesses, community organizations, and citizens to improve their waterfronts - while advancing economic development opportunities and protecting natural coastal resources.

DOS is working with 38 communities in the Hudson River Estuary to prepare and implement LWRPs and other planning initiatives that guide the beneficial

use, revitalization, and protection of their waterfront resources. As part of this effort, DOS has assisted 10 communities to advance redevelopment plans in urban areas with vacant and abandoned waterfronts.

## **Upper Hudson River**

In addition to work in the Hudson River Estuary, the DOS works with waterfront communities in the non-tidal portion of the Hudson River through the Inland Waterways program. DOS projects in the Upper Hudson River focus on enhancing waterfront access for recreation and creating sustainable, tourism-based economic and community development opportunities for the region.

An important regional effort in the Upper Hudson River is the First Wilderness Heritage Corridor, an intermunicipal effort for revitalizing the northern Hudson River corridor and the adjacent former Adirondack Branch of the D&H Railroad within the towns of Corinth, Hadley, Lake Luzerne, Stony Creek, Thurman, Warrensburg, Chester, and Johnsbury in Saratoga and Warren counties. The strategy recommends identified locations which provide access points to the Hudson River, linkages from the rail line to the Hudson River shoreline, and promotion of a unifying tourism and economic revitalization approach along the entire corridor.

## **Adirondack and Catskill Parks**

The Division of Coastal Resources works with communities in the Adirondack and Catskill Parks through the Inland Waterways Program and grants from the Environmental Protection Fund Local Waterfront Revitalization Program to promote community revitalization and resource protection. The Division helps

communities prepare community-based plans and projects that enhance public access opportunities, promote water-based recreation, create a sustainable tourism-based economy, protecting and improving water quality, and guide growth to traditional community centers.

Division of Coastal Resources projects in the Adirondack and Catskill regions include: and intermunicipal effort by the towns of Clifton and Fine, in cooperation with the Wildlife Conservation Society's Adirondack Communities and Conservation Program, to undertake a community visioning process and develop a strategy for the protection and revitalization of the Oswegatchie River and Cranberry Lake; and an intermunicipal revitalization strategy for the Route 28 corridor along the Black River, Fulton Chain of Lakes, and Moose River waterfronts in the towns of Forestport, Webb and Inlet.

## **New York State Canal System**

The DOS's Division of Coastal Resources has enjoyed an excellent partnership with local governments along the New York State Canal System for nearly twenty years through the Local Waterfront Revitalization Program and the Canal Recreationway Committee. Along the 524-mile canal system, currently over 90 municipalities have completed, or are preparing, LWRPs with many being multi-jurisdictional efforts.

In addition to working in partnership with municipalities to prepare LWRPs, substantial resources have also been committed for implementation. Grants from the Environmental Protection Fund Local Waterfront Revitalization Program have been awarded to NYS Canal System communities for a variety of projects to implement the Canal Revitalization Program by increasing local capacity through the establishment

## *Statewide Programs*

of a clear vision, as well as constructing boater and public access facilities.

### **Lake George**

In 2001, the DOS's Division of Coastal Resources created the Lake George Watershed Conference to prepare a long term plan to protect the lake water quality. The Secretary of State chairs the Conference and its activities are largely financed through Environmental Protection Fund grants, funds appropriated annually by each watershed municipality, and in-kind/volunteer services and materials from member organizations. The Conference includes all nine municipalities and three counties around the lake, five state agencies, and nine nonprofit organizations involved in protecting the lake. A project manager coordinates Conference activities. The Conference is a positive organization for assuring that local governments, non-governmental organizations, and state agencies work in partnership to address complex lake issues in a coordinated manner.

The Conference water quality plan, "Lake George - Planning for the Future," established a consensus on priority projects and actions needed to protect and improve the lake's water quality. Following completion of the plan in 2001, a Memorandum of Agreement was drafted by the Division and signed by all Conference members to continue this successful collaborative effort and to focus on its implementation. Over the past year, the Watershed Conference completed the "Implementation Status and Future Priorities Report," which describes progress made by Conference members to implement the recommendation set forth in the plan, and identifies specific priority actions to guide the Conference over the next three years.

### **Long Island Marine District**

Long Island's marine district is one of New York's great treasures. The public's use and enjoyment of the marine district depends upon its ability to access Long Island's bays and harbors, its tributaries and shore lands, and the quality of the natural and cultural resources it finds there.

The supply of formal, dedicated shoreline public access and recreation sites throughout the marine district is finite, and opportunities to add to this supply become fewer as private shoreline development grows. Safety concerns, parking deficiencies, fiscal constraints and residency requirements limit the potential use of many access and recreation facilities. Informal access opportunities are often lost when non-water-dependent uses displace water-dependent uses. All this occurs as populations grows, and demand for public access and recreation in the marine district increases.

New York State and its federal, regional and local partners continue to move forward to improve public access and recreation in Long Island's marine district through coordinated implementation of regional plans and programs. On Long Island's south shore, South Shore Estuary Reserve Council members continue their efforts to promote and expand public use and understanding of the many south shore estuarine bays by creating new public access and recreation opportunities and expanding facilities at existing sites. A new regional initiative - the Long Island South Shore Bayway - is providing a framework for the interpretation and promotion of the unique natural and cultural resources that define the region's rich maritime heritage.

Through the Long Island Coastal Management Program and the Long Island Sound Study, creative partnerships between the state, federal and

local governments, and land conservation groups are addressing land acquisition, habitat protection and expanded public access in selected shoreline areas through the Long Island Sound Stewardship Initiative. On Long Island's East End, as part of the Peconic Estuary Program, these same partners are moving aggressively to acquire remaining open space for its many values to the public: opportunities for public access and recreation, aesthetic qualities that benefit tourism and quality of life; and the preservation and buffering of environmentally sensitive lands with high natural resource values.

### **New York City**

With its 578 miles of waterfront, New York City has about 17% of the state's total coastline, and 38% of the total coastal population. New York City has long been a partner with the Division of Coastal Resources - the original New York City LWRP was approved with the State's Coastal Management Program in September, 1982, and was updated in the early 90's by completion of a Comprehensive Waterfront Plan (1992) and companion Borough Waterfront Plans (1993-1994). The comprehensive plan was incorporated into city policy through new waterfront zoning text and in revisions to the original LWRP.

Approved in 2002, the New Waterfront Revitalization Program (WRP) is now the city's principal coastal zone management tool. The intensity of development in New York City, and the limited land area available made it critical to identify appropriate areas for water-dependent activities as well as natural areas needing protection. Towards this end, the New WRP identifies both Significant Maritime and Industrial Areas (SMIA) and Sensitive Natural Waterfront Areas (SNWA).

The SMIA's include: South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, and the north

shore of Staten Island. Waterfront activity which furthers the industrial or maritime character of these areas would be consistent with the WRP policies. The SMIA's were determined by identifying concentrations of existing water-dependent uses and areas where the physical capacity of the lands, water, and infrastructure, and zoning accommodated these uses. A key Division priority is to maintain and improve the capabilities of the SMIA's, thereby supporting and preserving New York's historic and lucrative port economy. The Division recently provided financial support to the New York City Economic Development Corporation to update and expand the scope of the Maritime Support Services Study; upon which key land use and redevelopment decisions are being made.

The SWNAs are: East River-Long Island Sound, Jamaica Bay, and Northwest Staten Island-Harbor Herons. In these areas, resource protection policies are of heightened importance, and management plans prepared for these areas must highlight resource restoration and enhancement opportunities. A key area of focus for the Division has been assessing and planning for resource protection and appropriate development in Northwest Staten Island, where the concentration of creek, wetland and woodland resources, including many rare plants and natural communities, is continually encroached. The Division has provided technical assistance and more than \$1.5 million in grant support towards planning and design of an innovative redevelopment of the former Fresh Kills landfill. This landscape-scale project balances public access and education, economic development, and natural resource restoration.

The Division is also active in promoting public access and use of New York City's waterfronts and waterways. As the City's waterfronts transition from manufacturing and industrial space to residential, commercial and public

areas, communities have an opportunity to develop a vision for their neighborhood waterfront. The Division provides funding for a wide variety of neighborhood visioning and planning processes, ranging from West Harlem/Riverside Park North, the Harlem River and Highbridge Parks, Astoria and Long Island City, and the Borough wide Brooklyn Waterfront Greenway.

# Department of Transportation

## Bike and Pedestrian Program

The New York State Bicycle and Pedestrian program was established in 1991, with the passage by Congress of the Intermodal Surface Transportation Efficiency Act (ISTEA), which recognized the increasingly important role of bicycling and walking in creating a balanced, intermodal transportation system. Subsequent federal transportation bills including the 2001 Transportation Equity Act for the 21st Century (TEA-21), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFTEA-LU) have all reaffirmed the importance of promoting and facilitating the increased use of non-motorized transportation modes to the nation's and New York's overall health, economy and transportation choices.

It is the goal of the NYS DOT to continue to encourage bicycling and walking as safe, healthy, efficient and cost effective modes of transportation. Towards this goal, the Department will continue to promote a seamless intermodal transportation network that will include expanded bicycle and pedestrian facilities which target both the transportation and recreational needs of the residents of New York State. This will be achieved through the routine inclusion of sidewalks, crossings, bicycle lanes and wide shoulder in most highway construction projects, and

through such popular Federal programs as the Transportation Enhancements, Scenic Byways and the new Safe Routes to School which encourage residents of all ages and abilities to walk and bicycle and to be active and healthy.

### Accomplishments

Between 2003 and 2007, the Bicycle and Pedestrian Program has successfully implemented several major program initiatives. These accomplishments included:

- *Signing of five new on-road bicycle routes across the State.* (Figure 7.6):
  - The NYS DOT, in partnership with local and county governments has signed an additional 670 miles of new state bicycle routes. State Bicycle Route 11 will extend 320 miles between Binghamton and Rouses Point connecting with Pennsylvania's state bicycle route "L", and Velo Quebec bicycle network in the Province of Quebec. State Bicycle Route 14, extending 95 miles from Pennsylvania state bicycle route "G" northward to the Seaway Trail in Sodus NY. State Bicycle Route 19 which extends 100 miles from the Village of Wellsville (State Bicycle Route 17) northward

to the Seaway Trail at Hamlin Beach State Park. State Bicycle Route 20, which extends 80 miles from Pennsylvania's state bicycle route "Z" near Erie PA. northward to Lockport NY (State Bicycle Route 5). State Bicycle Route 25 which extends 75 miles between Nassau County, and Orient Point.

These new bicycle routes will further supplement and enhance New York's current network of bicycle routes 5, 9 & 17 by creating a grid of state bicycle routes, thereby making it easier for cyclists to travel east – west or north – south around New York State. These new bicycle routes will also provide a direct connection to Pennsylvania's and Quebec's network of signed on-road bicycle routes.

New York State by virtue of its key geographical position, serves as a gateway for thousands of cyclists traveling between New England and eastern Canada to points west, and vice versa. Recent bicycle tourism surveys have found New York to be a popular destination for cycle tourism based on its varied terrain, mild climate, rich history and extensive highway system.



Figure 7.6 - State Bicycle Routes

Economic studies conducted by several other states have demonstrated that the economic impact of bicycle tourists is significant. A conservative estimate of the annual economic impact of bicycle tourism to New York State is \$300 M per year in direct purchases made at restaurants, bed and breakfasts, bicycle shop and other retail businesses located along Main Street. It is estimated there are another \$700 M per year in indirect benefits to the State's environment, transportation network, and improved health and fitness of its residents. The signing of these additional bicycle routes only furthers enhances New York's reputation as a bicycle tourism destination, and promotes a greater acceptance of bicycling as a permitted user of the state's highway network.

- *Mapping Initiative for State Bicycle Routes 11, 14, 19, 20 & 25:* With the recent signing of these new state bicycle routes the New York State Department of Transportation will be developed new bicycle routes maps to for the benefit and convenience of cyclists, both bicycling within, or passing through New York State. The maps will contain information on points of interest, elevation profile, and insets to help cyclists navigate through urban centers. It is anticipated the maps should be available to the public by Fall 2008. The NYS DOT has also updated its Hudson Valley Bikeway and Trailway map, and will publish its new Guide to Long Island Bikeways maps in Summer 2008.

Other bicycle maps which are periodically updated include: The Capital District Regional Bike – Hike Map, Herkimer and Oneida Counties 2007 Bicycling Atlas, Syracuse Metropolitan Transportation Committee (SMTC) Bicycle Map, Greater Buffalo Niagara Regional Transportation

Committee (GBNRTC) Bicycle Map, Binghamton Metropolitan Transportation Study (BMTS) Bicycle Map, the Adirondack Glens Falls Transportation Committee (AGFTC) Bicycle Map and Parks and Trails New York's "Cycling the Erie Canal Guidebook" in hard copy and online at [www.ptny.org/bikecanal/index.shtml](http://www.ptny.org/bikecanal/index.shtml).

- *Safe Routes to School:* With the signing of the SAFETEA-LU legislation in August 2005, a total of \$612 M was authorized by Congress for the creation of a national Safe Routes to School (SRTS) program. New York's share of this new program was \$32 Million based on the pro rata share of children K-8 in New York State versus the entire nation. The purpose for which the SRTS Program was created:
  - To enable and encourage children, including those with disabilities, to walk and bicycle to school;
  - To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
  - To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

Studies have show that only 30 years ago the majority of children K-8 walked or bicycled to school on a daily basis. Since then, this number has continued to decline, with today an estimated 85% of all trips to school being made by bus or personal automobile. The result is children K-8 have become increasingly sedentary, with approximately 20% of all children being listed as obese – up from only 5% 30 years ago. In addition, many communities have undergone a dramatic

transformation as rapid growth and urban sprawl has caused new schools to be constructed in former rural sites, replacing the traditional neighborhood school to which almost everyone walked. These new sites often lack the most basic pedestrian infrastructure connecting them to their adjoining communities.

The Safe Routes to School program through improvements to the infrastructure surrounding school and safety education campaigns will once again make it possible for children to get back on their feet, and walk or bicycle to school. By bringing together such non-traditional partners as parents, teachers, neighborhood groups, law enforcement, and traffic engineers it creates the nexus to make streets safer for children of all ages. Communities which promote safer more pedestrian friendly streets have marked reductions in traffic congestion, collisions and a higher overall quality of life for all its residents. The ability to walk benefits people of all ages and abilities, as it promotes healthier living, greater independence and a much stronger sense of community.

- *Pedestrian Facility Design Training.* The NYS DOT's Bicycle and Pedestrian Program in partnership with New York State Metropolitan Planning Organizations (MPOs) and Federal Highway Administration (FHWA) are providing Pedestrian Facility Design Training, and Pedestrian Road Safety Audits to communities based upon need. This training will initially be offered to transportation engineers, and then to local communities, upon request. This training is aimed at enhancing the awareness and dialog among elected officials, advocates and private citizens of the physical and psychological barriers which prevent pedestrians from walking

## Statewide Programs

and exercising daily. The objective of the program is to demonstrate to communities that they do have a role in making their communities safer more pedestrian friendly. Also discussed will be the importance of every community's need to complying with Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the importance of an ADA Transition Plan.

- *Complete Streets Movement:* The complete streets movement seeks to redesign our urban highways to accommodate all potential users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must all be able to safely move along and across an urban street. A recent national survey found 52 percent of Americans want to bicycle more and 55 percent would prefer to drive less and walk more. However, many streets where people bicycle or walk are incomplete, meaning they lack even the most basic infrastructure necessary to encourage bicycling and walking. Federal guidance requires each state or local municipality receiving federal funds that "bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist." The complete streets movement requests all transportation agencies to institute a new policy that ensures all users are routinely considered whenever a roadway is improved. By redesigning our streets for all users, it reduces crashes through safety improvements, while promoting the number and portion of people bicycling and walking. Complete streets can also help ease transportation congestion by providing alternative travel choices which improves the overall capacity of the transportation network.

Some on-going initiatives which the NYS DOT Bicycle and Pedestrian program has continued to promote are:

- *The Walk Our Children to School (WOCS) event.* Since 1998, the DOT's Bicycle and Pedestrian program has been actively involved in promoting child safety through the annual WOCS event. This event principally targets elementary school aged children; those most at risk for injury walking to and from their homes to neighborhood schools and transit stops. The goals of the program are to reduce the number of pedestrian injuries among school children by teaching them safe walking skills and how to identify safe routes to school, awareness of how walkable their community is and where improvements can be made, and the health benefits of physical activity through walking. This program helps to build the foundation of knowledge and skills which every child needs to be a safe pedestrian throughout their lives. DOT's Bicycle and Pedestrian Program is partnering with the New York State Department of Health Governor's Traffic Safety Committee, and numerous county traffic safety boards, and health departments to continually expand this program. Since 1998, the WOCS program has been held in over 900 schools statewide and reached over 200,000 students K – 6.
- *Traffic Calming:* Traffic calming has long been recognized by the transportation profession as a proven engineering countermeasure for reducing pedestrian and motor vehicle crashes and injuries, vehicle speeds, and traffic volumes, while improving the overall walkable environment of a community. The term "traffic calming" is broadly defined throughout the United States and the world. The Institute of Transportation Engineers, an international educational and scientific association of transportation professionals, defines traffic calming as follows:

*"the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users."*

While the concept of traffic calming is not new, there is new interest by communities statewide in applying these techniques in combination, and improving the compatibility among all highway users. Combining techniques is especially effective in neighborhood traffic calming, which applies to residential neighborhoods, and on shopping or entertainment oriented streets, and in some cases main streets of our villages, and hamlets, and school zones. Examples of objectives that may be achieved by traffic calming measures include:

- Improved safety and convenience for road users, including residents, motorists, bicyclists, pedestrians, transit riders, and people with disabilities.
- Reduce number and /or severity of accidents.
- Reduce noise and air pollution.
- Enhance street appearance.
- Reduce the speeds of motor vehicles.
- Reduce the need for police enforcement.
- Achieve an overall improvement of the community's quality of life.

DOT, through its Bicycle and Pedestrian Program, has developed a 2-day training course on the proper design and application of traffic calming measures. Communities interested in a Traffic Calming course should contact the NYS DOT Bicycle and Pedestrian Program at (518) 457-8307.

- *Maps for New York State Bicycle Routes 5, 9, & 17:* The DOT, through its Bicycle and Pedestrian Program, has developed bicycle maps for its State Bicycle Routes (SBR) 5, 9 & 17.

The Program also maintains an inventory of bicycle maps from other regions of the state including: Binghamton, Buffalo, Capital District, Finger Lakes, Glens Falls, Hudson Valley, Long Island, New York City, Rochester, Syracuse, and Utica.

For additional information about or obtaining these maps, please contact the NYS DOT Bicycle and Pedestrian Program at: <https://www.nysdot.gov/portal/page/portal/divisions/operating/opdm/local-programs-bureau/biking> or by telephone at (518) 457-8307.

- *Stand-alone bicycle and pedestrian projects:* Between 2000 – 2007, the NYS DOT has completed 24 stand-alone projects pertaining to

Act of 1991 (ISTEA), and continued in the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Through the Transportation Enhancement Program, Congress provided innovative opportunities to improve the transportation system through the implementation of a specific list of activities intended to benefit the traveling public, increase transportation choices and access, enhance the built and natural environment, and provide a sense of place. Transportation enhancement activities offer communities funding opportunities to help expand transportation choices such as bicycle and pedestrian facilities, scenic

routes, beautification and other investments that increase recreation, accessibility, and safety for everyone beyond traditional highway programs.

Since the start of the program in 1994, the New York State Department of Transportation through its Transportation Enhancement Program has made funds available to communities in New York (Table 7.4).

For additional information about this program, to request an application or receive a guidebook, please contact your NYS DOT regional office, your local Metropolitan Planning Organization (MPO), or visit us on the web at: <https://www.nysdot.gov/portal/page/portal/programs/tep>

**Table 7.3 - NYS DOT Stand-Alone Bicycle and Pedestrian Projects 2000-2007**

Description	Number of Projects	Total Cost
American with Disabilities Act (ADA) Curb Contracts	5	\$1.03 M
New Shared – Use Pathways or Improvements	6	\$26.1 M
New Sidewalk Construction or Improvements	12	\$11.70 M
Traffic Calming Project	1	\$2.68 M
Total	24	\$41.51 M

improved bicycle and pedestrian safety, access and mobility, as well as promoting improved accesses for individuals with physical disabilities (Table 7.3).

## Transportation Enhancement Program

The Transportation Enhancement Program (TEP) was created in the Intermodal Surface Transportation

**Table 7.4 - Transportation Enhancement Program 1994 to Present Project Categories #1 and #8**

Category	# of Projects	Total Federal Projects Costs	Total Local Share Cost	Total Project Cost
Category #1 Provisions of Facilities for Pedestrians and Bicyclists	243	\$161,848,663	\$73,856,681	\$235,705,344
Category #8 Preservation of Abandon Railroad Corridors	62	\$32,262,710	\$13,734,763	\$45,997,473
Category #1 and Others	3	\$2,020,782	\$550,196	\$2,570,978
Grand Total	308	\$196,132,155	\$88,141,640	\$284,273,795

## Parkways and Bikeways

DOT maintains the 20 parkways administered by OPRHP. This includes the parkways on Long Island and paralleling the Niagara River and Lake Ontario. Some of the parkway segments were never completed and now significant linear open spaces exist within urban and suburban areas. The parkways provide the opportunity to develop

## *Statewide Programs*

hiking, biking and equestrian trails such as along the Niagara, Wantagh and Bethpage Parkways. Bikeways are being planned for the Palisades, Bethpage, Ocean and Lake Ontario Parkways.

# Scenic Byways Program

Since 1992, the New York State Scenic Byways Program, managed by the Department's Environmental Analysis Bureau has revitalized individual and community interest in the State's scenic, natural, recreational, cultural and historic resources. Since its inception, the Scenic Byways Program has facilitated partnerships among State agencies and local and county organizations, private citizens, business owners, and not-for-profit organizations. The Program fosters extensive public involvement and encourages local communities to manage these resources and to enhance tourism and recreation.

The following vision has been developed and reaffirmed by the New York State Scenic Byways Advisory Board:

New York State is recognized nationally and internationally for its outstanding network of designated scenic byways that provide inter-modal access to unique and significant scenic, natural, recreational, cultural, historical and archaeological resources. Local and statewide scenic byways management efforts promote tourism, stimulate economic development and conserve resources to sustain the quality of the communities and associated resources.

Following the recommendations of the New York State Scenic Byways Advisory Board, the Department has successfully competed for annual National Scenic Byway Program

discretionary funds with total project values over \$20 million since the inception of the program fifteen years ago.

**Scenic Byway Funding:** Just in the past five years, NYSDOT's Scenic Byways Program has successfully funded 67 Scenic Byway projects valued in excess of \$7.5 million. The primary purpose of each of these projects is either to provide for safety improvements; byway facilities such as visitor centers and comfort stations; improved or new access to recreation; intrinsic resource (scenic, recreation, natural, cultural, and historical) protection; interpretive information and signage; or visitor and tourism marketing.

**Scenic Byway Projects:** Specific funded project examples include: the Route 90 Scenic Byway Information and Interpretation Center; "Old Saratoga" Network of Interpretive Parks; Seaway Trail Bicycle Map; North Fork Trail Byway Resource Protection; Hudson Crossing Interpretive Park and Environmental Education Center; Route 73 Vegetation Conservation and Rehabilitation Program; Restoration and Improvements to the Lake Champlain Visitors Center (Bridge Toll Collector's Residence) at the Champlain Bridge; French and Indian War 250th Commemoration Interpretation; Elizabethtown Waypoint Visitor Center; multiple Invasive Plant Projects and Community Outreach in the Adirondack North Country; Chesterfield Tourist Interpretive Center; Champlain Pedestrian and Bike Trail; Southern Adirondack Trail Greenway Reconnaissance; Slate Valley Waypoint Interpretive Center; multiple Birding Maps and Interpretive Signage Projects; Pedestrian and Bicycle Trail Linking Waterford Harbor to Lock 2; Great Lakes Maritime Heritage Map, Mohawk Towpath Information Kiosk, and the Shawangunk Mountains Regional Open Space Preservation Plan.

These funds, passed on to communities and other organizations across the State to carry out locally initiated

projects that interpret and manage the intrinsic qualities of the State's many Scenic Byways; promote tourism, recreation and economic development; and provide physical improvements to existing State Scenic Byways.

**Scenic Byway Designations:** Several new State scenic byways have been designated by the New York Scenic Byways Advisory Board in the past five years. These include: The North Fork Trail on Long Island, the Cayuga Lake Scenic Byway in Central New York, the Southern Adirondack Trail, the Mohawk Towpath Byway in the Capital District, U.S. Route 20 from Duanesburg to Lafayette, and the Shawangunk Mountains Scenic Byway in the Hudson River Valley Region. In addition, New York State received its third National Scenic Byway designation with the designation of the Mohawk Towpath at the national level in 2005. The Mohawk Towpath joins the Great Lakes Seaway Trail and Lakes to Locks Passage as New York's premiere byways.

**Scenic Byway Corridor Management Plans:** An approved community progressed Corridor Management Plan (CMP) is required for the nomination and designation of New York State Scenic Byways. CMPs provide for the conservation and enhancement of the byway's intrinsic resources as well as promote recreation, tourism and economic development. In addition to CMPs prepared for the most recently designated byways, CMPs have been initiated, progressed, or completed for the following legislated State Scenic Byways: multiple byways in the

Adirondack North Country including the Adirondack Trail, Olympic Byway, Central Adirondack Trail, Revolutionary Trail, Black River Trail, and the Military Trail; and the Historic Parkways of Long Island.

## Canal Corporation

The NYS Canal Corporation, a subsidiary corporation of the New York State Thruway Authority, is responsible for the operation, maintenance and promotion of four historic operating canals that span 524 miles across NYS.

The four canals that make up the NYS Canal System are:

- the Erie Canal
- the Oswego Canal
- the Champlain Canal and
- the Cayuga-Seneca Canal

The Canal System links the Hudson River, Lake Champlain, Lake Ontario, the Finger Lakes, and the Niagara River with communities rich in history and culture.

## Community Assistance

Canal communities form the backbone of Upstate New York. The Canal Revitalization program, administered by the Canal Corporation, has provided dozens of communities with increased public access to the Canal, new and improved trail linkages and enhanced economic opportunities.

The four major elements of the Canal Revitalization program are:

- Canal harbors
- Canal service ports
- The Canalway Trail and
- Canal System marketing plan

This program has afforded quality-of-life benefits to both Canal community residents and visitors alike.

Under the Revitalization program, the Canal Corporation invested \$13 million to develop seven Canal harbors and \$20 million in Canalway Trail projects, including 170 miles of new construction. Additionally, in partnership with other State agencies, the Canal Corporation has helped implement more than \$200 million in local Canal service port projects across the State. The overall goals of the Revitalization program have been to preserve the past, enhance recreational opportunities and promote community development.

The Erie Canal Greenway Grant Program, administered by the Canal Corporation, was created in 2006 to help spur community revitalization and preservation efforts. As part of a \$10 million appropriation from the State Legislature, the Corporation solicited grant applications from municipalities and non-profits for capital projects along the Canal System to preserve and rehabilitate canal infrastructure; enhance recreational opportunities for water and land-based users; and promote tourism, historic interpretation and community revitalization. To date, over \$8.9 million in grant funding has been awarded to municipalities and non-profits through this program.

# Department of Education/NYS Museum

## Biodiversity Research Institute

The importance of biodiversity was discussed in Chapter 4 under Stewardship. By funding promising research projects, sponsoring conferences and seminar series, and undertaking and directing other initiatives, the New York State Biodiversity Research Institute (BRI) advances information and research for the conservation of New York State's biodiversity. By improving understanding of our state's natural resources and the challenges to their existence, BRI seeks to collaborate with all residents of New York State in preserving this rich biodiversity for future generations.

A program of the New York State Museum within the State Education Department and funded by the Environmental Protection Fund, BRI is a partnership among conservation and environmental groups and leaders from throughout the state. Its partners include the State Education Department; New York State Department of Environmental Conservation; New York State Office of Parks, Recreation, and Historic Preservation; State University of New York; American Museum of Natural History; Audubon New York; New York Natural Heritage Program; and The Nature Conservancy. An executive committee—appointed by the New York State Legislature and Governor—sets the direction of the organization with

the advice of a team of expert scientists from across the state.

The New York State Legislature founded BRI in 1993 to help meet the challenges of preserving the state's biodiversity. Since that time, BRI has served as a comprehensive source of information about the ecosystems, habitats, and all living organisms in New York State.

### Goals

In March 2006, the New York State Biodiversity Institute approved a strategic plan outlining the organization's top five goals in its effort to advance information and research for the conservation of New York's biodiversity:

- **Address the biodiversity information needs of government and provide related conservation recommendations.** BRI will provide the best-available objective and scientifically rigorous information and recommendations for biodiversity and conservation management to the governor, state legislature, and public agencies in support of informed, effective policy making. To ensure the availability of accurate information about the biodiversity resources on state lands, BRI will promote existing information and fund new projects relevant to land-use decisions.
- **Address the biodiversity information needs of the public and provide related conservation recommendations.** BRI will provide the general public with the best-available information and access to expert guidance, and fund and support information projects that are accessible to the public. Specifically, BRI will provide information and training to private and nonprofit land owners and natural resource professionals to enhance the stewardship of biodiversity on private lands.
- **Encourage, support, and develop networks of collaborating scientists.** By maintaining a direc-

tory of biodiversity research and conservation management scientists, BRI will provide a resource for people looking for expert guidance. BRI will also identify and develop ways to foster collaboration among scientists, such as giving grants to annual research proposals that involve collaboration. Through regional and statewide symposia—including the Northeast Natural History Conference—BRI will facilitate networking and encourage collaboration.

- **Support biodiversity research programs.** After prioritizing needs for biodiversity information and conservation management, BRI will solicit, evaluate, and fund project proposals that address the identified needs. BRI will review and evaluate all funded projects to track their results and impact, and encourage collaboration among existing programs to maximize the impact of completed work. BRI will also fund projects specifically designed to gather information or develop expertise that will help BRI better achieve its strategic goals.
- **Support biodiversity education.** BRI will solicit, evaluate, and fund proposals for projects that address biodiversity education needs; work with the State Education Department and Board of Regents to incorporate biodiversity education into the curricula of New York State schools; and connect BRI-supported research and initiatives with environmental education and nature centers in New York State.

### Activities and Accomplishments

- **The New York State Biodiversity Project**  
BRI collaborates with the American Museum of Natural History, New York State Department of Environmental Conservation, New York Natural Heritage Program, and The Nature Conservancy on the New York State Biodiversity

Project. The project was launched in 1999 to improve understanding of the state's diverse ecosystems, habitats, and all living organisms and to identify challenges and recommendations for protecting this biodiversity. In 2006, the joint effort resulted in the publication of *Legacy: Conserving New York State's Biodiversity*.

Written for the general public and concerned audiences and featuring more than 200 color photographs, the 100-page book aims to increase awareness and help ensure the preservation of New York's biodiversity. The book is available free of charge from BRI, which partially funds the New York State Biodiversity Project.

- **Publication and Distribution of Biological Diversity: The Oldest Human Heritage**

Based on a manuscript written by Edward O. Wilson of Harvard University, the BRI has published a book that describes the importance of preserving biodiversity, along with state-specific examples of threatened species and habitats. This book is being distributed free of charge to high school level students throughout the state.

- **The Northeast Natural History Conference**

The Northeast Natural History Conference offers scientists, educators, and students an opportunity to present current information on the varied aspects of natural history research from the Northeastern United States and adjacent Canada. In addition to updating colleagues on current research, the conference serves as a forum to identify research needs, foster collaboration, and rekindle interest in natural history by bringing people with diverse backgrounds together. BRI has been organizing and hosting the conference since 1998. Abstracts of

presentations from previous conferences are available at <http://www.nysm.nysed.gov/nhc/>.

- **Lectures on Biology and Conservation**

Since spring 2005, BRI has organized and sponsored two lecture series each year. Speakers from around the state have presented on a variety of conservation topics, and attendance for this seminar series has blossomed. The series attracts a varied audience, including New York State agency staff, private consultants, museum scientists, conservation practitioners, educators, and the interested public—both from the Capital District and beyond (including across state borders). The noontime lectures, held at the New York State Museum on Wednesdays in April and October, are free and open to the public.

- **Biodiversity Needs Assessment**

BRI is conducting the first-ever comprehensive biodiversity needs assessment for New York State. This assessment will focus on identifying, evaluating, and prioritizing biodiversity research needs in New York State.

To compile the report, BRI will gather input from and work with a variety of scientists [e.g., university, state agency, private institution, non-governmental organization (NGO), and private] and other experts on the state's biodiversity. The report will review what is known and not known about various taxa, communities, and regions in the state; identify gaps in basic knowledge; identify the scope of biodiversity research needs; and prioritize biodiversity research needs to provide the foundation for sound stewardship in the state.

As a final step, BRI will use information from this assessment to help guide the work of BRI and its

programs, including the awarding of grants. This needs assessment can also be extended to help guide others interested in biodiversity across the state.

- **Alien Invaders Exhibition**

BRI is partnering with the State Museum, New York State Department of Environmental Conservation, and New York State Department of Agriculture and Markets to produce an exhibition on invasive species in New York State. This exhibition, planned for 2008, will introduce the public to non-native invasive species and demonstrate why it is such an important topic in New York State and worldwide. It aims to connect Museum visitors to this issue and inspire a sense of responsibility that they can take actions toward its resolution.

The exhibition incorporates several major themes, including the pervasiveness of invasive species and their ability to out-compete native species; the responsibility of humans in introducing some of these species to the state; and invasive species as a form of biological pollution and as a threat to agriculture, forestry, parks, and other natural resources. The exhibition will explore invasive species as a threat to tourism and industry, as well as tell how invasive species affect the daily lives of all New York State residents.

The exhibit focuses on species that are not native to the ecosystem they occur in and how they can cause harm to the environment or to human health. Examples include: purple loosestrife, water chestnut, hemlock woolly adelgid, zebra mussel, the fungus causing Dutch elm disease, and snakehead.

The exhibit will display up-to-date information on the status of

## Statewide Programs

invasive species in the state, relate how historical actions by humans and land-use patterns have enabled these invasions to occur, and what steps can be taken in the future to address some of these problems.

- Enhancements to BRI's Online Resources

To improve users' ability to access information on BRI and biodiversity, BRI is redesigning the BRI Program Website ([www.nysm.nysed.gov/bri/index.html](http://www.nysm.nysed.gov/bri/index.html)) and the New York State Biodiversity Clearinghouse Website ([www.nybiodiversity.org](http://www.nybiodiversity.org)).

The renovated BRI site now includes updated information on the activities of the BRI Program office and the list of fiscal year 2006–2007 grants with fiscal information and project abstracts. The next step in the redesign is the development of a database for awarded grants so that users can search for information by using specific keywords, such as species names, geographic locations, or research institutions.

The New York State Biodiversity Clearinghouse Website, developed by the New York State Biodiversity Project and maintained by BRI, provides New York residents with up-to-date information. It was created in response to recommendations from a user's needs assessment conducted by the Environmental Law Institute for the project.

When visiting the site, users most frequently access pages with summaries of selected groups of organisms such as slime molds, crabs, shrimps, crayfishes, fishes, and birds. These summaries describe the distribution of these species in New York State and highlight some of the conservation issues related to the species. Each taxonomic summary also contains a list of species that has been documented in the state.

In conjunction with the redesign of the BRI Program Website, BRI plans to redesign the Clearinghouse Website. In addition to posting additional taxonomic summaries, the restructured site will feature a database that enables users to more easily access information contained in the taxonomic summaries. Other enhancements include integration of some features of the Clearinghouse Website with the BRI Program Website.

- Biodiversity Grants Program

Through an annual competitive Biodiversity Grants Program, BRI provides funds to state agencies, academic institutions, private research consultants, and non-profit conservation organizations working to understand and conserve New York's native biodiversity (e.g., insects, plants, wildlife, and ecosystems). These grants support research projects that improve our basic understanding of a variety of New York State taxa, from fungi and insects to turtles and bats, as well as those that enhance the value of existing natural history collections.

These projects also increase our knowledge of how species as varied as algae, fungi, clams, frogs, birds, and plants interact in their natural systems and identify how they react to potential threats, such as non-native invasive species. This, in turn, leads to better-focused conservation practices supported by scientific evidence. Some of these projects offer opportunities for the public to join in data collection and to become actively engaged in scientific research and contribute to the conservation of New York State biodiversity.

Grants are awarded based on recommendations of leading researchers in the fields of environmental science and education. Successful

applicants clearly demonstrate the importance of their project to the conservation of New York State's biodiversity. Specifically, they identify how the proposed project will contribute to our understanding of biodiversity within the state or threats to its existence, and how the project will contribute to the development and implementation of conservation initiatives to ensure its persistence. Educational initiatives that enhance public awareness of the value of biodiversity and projects that promote accessibility of information on New York's biodiversity are also supported.

BRI funds research and education projects in the following categories:

- Bioinventory, Taxonomy, and Systematics
  - Inventories of flora, fauna, or other living organisms (rare or common)
  - Research that uses or enhances existing biological collections
  - Basic research on taxonomy and systematics
- Ecological Research
  - Ecology of species (rare or common) or assemblages in understudied taxa or regions
  - Model the effects of range expansions or population losses on ecosystems
  - Assessments of the effects of the introduction of invasive or exotic species on native biota
- Land-Use Change and Conservation Initiatives
  - Inventory or mapping of ecological communities
  - Identification of priority areas and mechanisms for conservation
  - Assessments of the effects of land use on native biota

- Investigation of techniques to protect, conserve, or manage biodiversity
- Education Initiatives
  - Educational efforts that increase public awareness of the value of biodiversity
  - Projects that promote accessibility of information on biodiversity and its conservation among a variety of users (e.g., general public, state agencies, planners, researchers)
- Information Transfer
  - Initiatives that foster access, compatibility, interchange, and synthesis of data among biological information systems maintained by public entities, academic and research institutions, and private organizations
  - Preparation and publication of interpretative works that draw upon biological collection resources

For a complete list of previously funded projects visit the BRI website at <http://www.nysm.nysed.gov/bri>.

# Olympic Regional Development Authority

## The Olympic Training Center

Lake Placid was the home of the 1932 and 1980 Winter Olympics that left behind valuable winter sports facilities including ski jumps, skating ovals, alpine trails, bobsled and luge runs. When the Olympic Regional Development Authority (ORDA) became the administrator of these facilities in 1982, the U.S. Olympic Committee (USOC) signed a contract with ORDA to establish the second Olympic Training Center.

The Training Center, which offers 96 hotel-style rooms, a gymnasium, sports medicine, weight training and dining facilities, was constructed in 1990 to house athletes in training. From the training center, athletes have access to the Olympic Speed Skating Oval, the Olympic Jumping Complex, the Freestyle Aerial Complex, Whiteface Mountain's Olympic Downhill Ski trails, the Olympic Sports Complex at Mt. Van Hoevenberg, and the Olympic Ice Complex.

Since ORDA assumed authority of these facilities, Lake Placid has hosted more than 225 national and international competitions including 8 World Championships and 41 World Cups. It has also been the annual host to the Empire State Winter Games for nearly three decades. ORDA also maintains and makes periodic improvements to these facilities to keep America's only

world class set of Winter Olympic facilities fully operational. ORDA has a full range of departments to adequately run these facilities and to meet their legislative mandate which is:

"To institute a comprehensive, coordinated program of activities utilizing the Olympic facilities in and around Lake Placid, New York in order to insure optimum year-round use and enjoyment of these facilities to the economic and social benefit of the Olympic region..."

In addition to the Olympic Complex in Lake Placid, ORDA also administers the ski area on Gore Mt. and Whiteface Mt. and the Mt. Van Hovenberg bobsled/luge run. ORDA took over this facility in 1984.

### Goal

Continue to conduct statewide athletic competitions for all segments of the population.

### Actions

- Continue to conduct the Empire State Summer and Winter Games, Empire State Senior Games and Empire State Games for the Physically Challenged.
- Rotate host locations for the Empire State Summer Games events throughout the State.

### Goal

Encourage greater participation of all segments of the population in athletic activities.

### Actions

- Encourage broad participation in athletic events at the local and regional levels.
- Encourage volunteer participation in groups that organize athletic leagues.
- Encourage both competitive and noncompetitive athletic programs that will provide opportunities for

all the citizens regardless of their athletic abilities.

### Goal

Expand the acquisition and development of open space areas within easy access to communities that can provide opportunities for field and court activities.

### Actions

- Encourage the acquisition and development of open space areas in underserved communities.
- Encourage the shared use of outdoor recreation facilities, such as school fields, for community organized athletic activities.
- Provide the appropriate level of maintenance to prevent the deterioration of field areas due to overuse.

# Department of Health

## Health

Recreation resources provide an important opportunity for people to be physically active, which can lead to significant improvements in health. Being physically active on a regular basis can contribute to a decrease in the risk of numerous debilitating diseases and conditions, including heart disease, diabetes, hypertension, some forms of cancer, osteoporosis, obesity, depression, arthritis, and possibly Alzheimer's disease. In fact, being physically inactive (combined with poor eating habits) is the second underlying cause of death in this country (next to tobacco use), accounting for 14% of all deaths annually.

Obesity is one of the conditions most closely related to physical inactivity. In recent years, obesity rates have increased dramatically. In New York, at least 60% of adults have weights that put them at higher risk for health problems. The prevalence of overweight and obesity is highest among African Americans, those with the lowest household incomes, and those with lower educational attainments. National data (based on actual height and weight measurements) reveal that 17% of children (2-19 years of age) are overweight. Over a mere five year period (1999 to 2004), the rate of overweight among young girls increased from 14% to 16% and among boys from 14% to 18%. Physical inactivity and/or excessive caloric intake are the prime causes of obesity in all age groups.

In order to improve health, health authorities recommend that people get at least 30 minutes of moderate activity, such as walking, at least 5 times a week

(or 20 minutes of vigorous activity such as jogging at least 3 times a week). This level of physical activity is likely to have broad health benefits, regardless of weight status. More physical activity and/or more vigorous activity levels may be necessary to reduce weight or maintain weight loss. Elementary school-aged children should get at least 60 minutes of activity most days of the week.

The most recent self-reported data on physical activity rates in New York, show that only 48% of adults in New York meet these minimum recommendations, and 27% of adults had no leisure time physical activity in the previous month. On a national level, people in rural areas are less likely to meet physical activity recommendations than are people in large metropolitan areas. In 2000, adults in New York were asked to name the two leisure time physical activities that they have engaged in over the past month. Based on this survey, the top five leisure time physical activities among adults in New York are: walking (engaged in by 64% of adults), weight lifting (18%), running (11%), aerobics classes (11%) and basketball (10%).

Most people know that they need to be more physically active. However, many people find it difficult to incorporate physical activity into their daily lives. Over the past several decades, we have created a physical and social environment that discourages physical activity. Even short trips are made by car (rather than by walking) and children often have no safe place to play outside near their homes and schools. Recent research has shown that adults with access to neighborhood parks were nearly twice as likely to be physically active as those without access to parks. Studies of community trail users have repeatedly found that the creation of the trail has allowed them to increase their physical activity levels. Unfortunately, those at highest risk of being inactive and suffering the health consequences

often don't have easy access to parks and trails. Studies have shown that there are fewer parks, green spaces and trails in communities with higher levels of poverty.

New York's efforts to increase and improve access to parks, trails and recreational facilities will significantly help address the obesity epidemic. Of particular importance are facilities that are in close proximity to where people live and work so that they can be used several times a week, for transportation (to/from school, work, errands) as well as for leisure as the "Cardiovascular Health in NYS Plan for 2004 - 2010" recognizes in its community sector objectives. This plan also recommends promoting the use of NYS Parks as a means of increasing physical activity for individuals and families (DOH, 2004). Additionally, priority should be given to developing neighborhood parks, trails, and other recreation facilities that serve low-income and rural populations.

### Goal

Expand trail systems that link communities with recreation areas and places of work.

### Actions

- Encourage the development of greenways and trails.
- Develop and designate bike lanes on or parallel to road systems.
- Provide proper maintenance and security on trails to provide a safe and enjoyable experience.

### Goal

Acquire, develop and maintain parks and open spaces within populated communities, especially underserved communities.

### Actions

- Recognize the importance of parks and open spaces in state and local land acquisition and recreation grant programs.

### *Statewide Programs*

- Encourage the development of local recreation and open space plans.
- Encourage the participation of the local community in providing and maintaining recreation facilities.

### *Goal*

Expand the level of participation of citizens in passive and active forms of recreation.

### *Actions*

- Encourage local events that focus on physical activity.
- Expand noncompetitive and competitive activities.
- Organize activities that appeal to all populations and age groups.
- Support efforts to increase the public's awareness of the health benefits of physical activity at recreational facilities such as parks.

## **Water Quality and Safety**

As discussed in Chapter 3, New York State has over 3,000 bathing facilities including: bathing beaches on lakes, ponds, rivers and the ocean; swimming pools (including kiddie pools, diving pools, wave pools and others); and spray grounds. The New York State Department of Health is responsible for assuring that all public swimming facilities in the state are operated in a safe manner and that these facilities meet State and Federal standards for safe recreational use. All public bathing facilities in the state must be supervised by qualified lifeguards and meet state water quality and safety standards. Regulations for safe swimming pools, bathing beaches, and aquatic spray grounds are within Subparts 6-1, 6-2 and 6-3, respectively, of the State Sanitary Code.

# Office for the Aging

The New York State Office for the Aging (OFA), through its network of 59 Area Agencies on Aging, has initiated and continue to manage a number of health promotion, disease prevention, and recreation programs and services for active, healthy living for older adults across New York State that fit in with the SCORP.

## Preventive Screening

Senior Health Check is a new initiative that is designed to encourage older New Yorkers, covered by Medicare, to make greater use of preventive screening benefits under the insurance coverage. In addition, the OFA is encouraging Area Agencies on Aging to develop and implement evidenced-based prevention and chronic disease self-management programs to improve health status and quality of life.

## Nutrition Program

Area Agencies on Aging use congregate meal sites, home delivered meals programs, multipurpose senior centers, and other appropriate sites to delivery health promotion and disease prevention services, thereby allowing them to integrate such services with the nutrition program. Priority is given to areas which are medically underserved and where there are a large number of older individuals in greatest economic

and social need. Broad services include health risk assessments; routine health screening (hypertension, glaucoma, cholesterol, cancer, vision, hearing, diabetes, bone density and nutrition screening); nutritional counseling and educational services; evidence-based health promotion programs, including programs related to the prevention and mitigation of the effects of chronic disease, alcohol and substance abuse reduction, smoking cessation, weight loss and control stress management, falls prevention, physical activity and improved nutrition; physical fitness programs; home injury control services; mental health screening services; information and education about Medicare preventive care benefits including influenza and pneumonia vaccinations. All Area Agencies on Aging provide medications management screening and education.

## Senior Center

The term “Senior Center” refers to a community facility through which a broad range of programs and services are provided to older adults. Included among these programs and services are recreation and education activities, and health promotion activities.

## Senior Center Recreation and Education

Activities also are organized and scheduled through the Area Agency on Aging or its sub contractors which involve older persons in courses, workshops and other learning activities and satisfying use of free time.

## Senior Center Health Promotion

Services and activities that foster good health, increase awareness and understanding of healthy lifestyles and promote physical and mental health. These include but are not limited to:

- Exercise classes
- Walking groups
- Stress education workshops
- Administration of influenza and other vaccines
- Promotion of early detection of various health problems through education and/or testing
- Activities to promote successful management of medications, such as group workshops or one-on-one consultations with a health professional.

# U.S. Army Corps of En- gineers

## Harbors of Refuge

A number of harbors of refuge along the shores of Lake Erie and Lake Ontario were identified by the U. S. Army Corps of Engineers (COE). These lakes are often subject to sudden squalls and high winds creating waves and wakes in excess of 10 feet. Harbor of refuge is a term that refers to a harbor that provides services specifically to accommodate transit craft rather than as a home port for local craft (OPRHP, 1980). Initially, the COE recommended that harbors of refuge occur every 30 miles. It was determined, however, for smaller craft navigating the Great Lakes that shorter intervals were more appropriate. Harbors of refuge have been established at Barcelona, Dunkirk, Cattaraugus Creek, Sturgeon Point and Buffalo Harbors on Lake Erie and Wilson-Tuscarora State Park, Olcott Harbor, Golden Hill State Park, Oak Orchard Marine Park, Braddock Bay, Irondequoit Bay State Park, Port Bay, Little Sodus Bay, Mexico Point State Park, Port Ontario, Henderson Harbor and Sackets Harbor on Lake Ontario.

In 1982, OPRHP and DEC prepared a "Strategic Plan for Economic Development through Expansion of Waterway Access to the Great Lakes Report". The report identified the scope of work, expenditures and benefits that would be involved with the expanded access opportunities on the Great Lakes. Many of the projects have been implemented but there are more opportunities to be considered as recognized in the New York State 25-Year Plan for the Great Lakes. This is supported by the

results of the "1990 Statewide Survey of Boating Use at Public Waterway Access Sites in New York State" that identified Lake Erie and Lake Ontario within the top five water bodies in the State in which boaters identified as needing to expand public access.

# Federal Energy Regulatory Commission/NY Power Authority

## Hydroelectric Power Projects

Throughout the State, many rivers are being used by various power generating companies to produce hydroelectric power. These facilities are regulated and must obtain an operating license issued by the Federal Energy Regulatory Commission (FERC). Many of the facilities within the State are undergoing a re-licensing process to ensure power generating companies continue operating. One aspect of this process is to provide recreation facilities and access, to and in the vicinity of the power facility. Public access to the waters and portage around the structures is an important element of the project. Other recreational facilities that may be considered are picnic areas, campgrounds, and scenic overlooks. Some facilities may even provide an interpretive visitor center explaining their generating plant to the general public.

For example, the St. Lawrence-Franklin D. Roosevelt Power Project is located in a 37 mile corridor along the St. Lawrence River in the towns of Lisbon, Waddington, Louisville and Massena. This represents approximately one-third of the St. Lawrence River corridor. Since 1953, this facility has been operating under a license issued to

the New York Power Authority (NYPA) by the Federal Energy Regulatory Commission (FERC). A new 50-year license was issued for the St. Lawrence – FDR Project in October, 2003. This license will expire in the year 2053. This project incorporates within its boundaries two State parks, wildlife management areas, various local parks, and numerous boat launching sites. Similarly, a new 50 license, effective August 31, 2007, has been issued for the Niagara Power Project and will expire in 2057. The settlement package for the Niagara Project provides significant funding for the Niagara River Greenway.

It is important to insure that these power facilities include recreation facilities within their boundaries. Power companies may create new facilities on their property or enter into agreements with the state or local governments to create new or improve existing facilities.

# U.S. Environmental Protection Agency

## Lake Champlain Basin Program

The Lake Champlain Basin stretches from the peaks of the Adirondacks in New York to the Green Mountains of Vermont and north into Quebec, Canada. The Basin is a unique and historically significant natural resource that attracts thousands of residents and visitors each year to participate in diverse recreational opportunities. Increased use, competing and conflicting uses, and development continues to pressure the Lake's natural and recreational resource. The Lake Champlain Basin Program (LCBP), established in 1990, was charged with developing a long-term, cooperative management plan and program to protect and enhance the lake and its drainage basin for future generations to enjoy. The program is a partnership with among the states of New York and Vermont, the Province of Quebec, the US Environmental Protection Agency (EPA), other federal and local government agencies and many local groups both public and private. (LCBP, 2003)

The management plan, "Opportunities for Action" was first produced in 1996 and was revised in 2003. Although Lake Champlain is a vital lake with many assets, there are several serious environmental problems that demand action. Issues addressed in the 2003 Plan include:

- High phosphorus levels and algal blooms in parts of the Lake
- Toxic substances, such as PCB's and mercury, which have resulted in fish consumption advisories for some fish
- Impacts to fish and wildlife from nuisance nonnative aquatic species
- Wetland loss
- Habitat fragmentation
- Public access issues
- Recreational use conflicts
- Loss of cultural and archeological resources (LCBP, 2007)

The revision identified four specific goals as high priority and a set of recommended actions for each goal that are designed to protect and restore the ecological and cultural resources of the Basin, while maintaining a vital regional economy. (LCBP, 2003)

### *Goal:*

Reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of the Lake.

Phosphorus and other nutrients are needed for plant growth; however, human activities can upset the balance of aquatic nutrients leading to accelerated eutrophication (the natural aging process of lakes) and threaten water quality and human use and enjoyment of the lake. When the lake becomes over fertilized, by Phosphorus in particular, excessive amounts of algae and other aquatic plants become prolific and can impair water quality, aquatic habitats for fish and wildlife, reduce recreational appeal and impair water supplies. (LCBP, 2003) The bays and segments of the Lake are monitored to see if they meet the water quality targets agreed upon by New York, Vermont and Quebec in 1993.

### *Accomplishments:*

- A Total Maximum Daily Load (TMDL) for phosphorus was developed for Vermont and New York.
- The total point source wastewater phosphorus discharge from plants in Vermont and New York is below the lake-wide limit set in the 2002 TMDL.
- 2006 funding from the International Joint Commission (IJC) will be used to help small farms in the Missisquoi watershed create new nutrient management plans.
- In 2005, the City of South Burlington created the Basin's first storm water utility to manage runoff. (LCBP, 2006)

### *Actions:*

- Determine the additional actions necessary to achieve the load reductions on an expedited schedule by 2009, the 400th anniversary of Samuel de Champlain's arrival on the Lake, instead of 2006
- Provide funding for point source phosphorus reductions
- Estimate the non-point source phosphorus load that is being generated by developed land uses (urban and suburban land, roads, etc.) in the basin and work aggressively to reduce this load.
- Expand and accelerate implementation of existing federal, state and provincial agricultural non-point source pollution programs.
- Expand programs for stream bank restoration and the installation of vegetated buffer areas along eroding streams and rivers. (LCBP, 2003)

### *Goal:*

Reduce toxic contamination to protect public health and the Lake Champlain ecosystem.

Toxic substances are elements, chemicals, or chemical compounds that can poison plants and animals, including humans. Some toxic substances come from natural sources; however, the increasing use and release of chemicals

in our daily lives may threaten the high quality of our Lake environment. Health advisories have been issued in both New York and Vermont regarding the consumption of fish species with elevated levels of mercury and polychlorinated biphenyls (PCBs). The presence of toxic substances raises concern about their impacts on the Lake ecosystem, its uses as a drinking water supply and other uses. (LCBP, 2003)

*Accomplishments:*

- NYS DEC completed dredging projects to remove PCBs from Cumberland Bay in 2001. Recent data has shown a decrease in the PCB levels in the sediment.
- Pollution prevention measures are underway in Outer Malletts Bay and Burlington Harbor.
- The "Clean Sweep" program has been implemented and works with businesses and farmers to safely dispose of pesticides.
- Mercury thermometer and manometer exchanges for new electronic devices and outreach to dentists about safely disposing of mercury have helped to keep mercury out of the Lake.
- In 2005, LCBP initiated a collaboration of scientists to investigate "new generation" toxins in the Lake such as pharmaceuticals, personal care products and fire retardants. (LCBP, 2006)

*Actions:*

- Continue to develop and implement a comprehensive toxic substance management strategy emphasizing pollution prevention while continuing to mitigate pollution problems throughout the Lake.
- Continue monitoring and restoration efforts in sites of concern.
- Facilitate the redevelopment of contaminated sites (brownfields) in the Lake Champlain Basin.
- Further characterize and manage toxic substances in urban storm water.

- Support and continue programs to encourage homeowners, industries, businesses and public institutions to implement pollution prevention and recycling measures. (LCBP, 2003)

*Goal:*

Control the introduction, spread and impact of nonnative aquatic nuisance species in order to preserve the integrity of the Lake Champlain ecosystem.

Fish and wildlife provide social, economic and environmental benefits. Abundant fish and wildlife attract recreational hunters, bird watchers and anglers, resulting in a significant economic benefit to local communities. At least 22 nonnative aquatic nuisance species are known to have been introduced and dispersed into the waters of the Basin. Established populations Aquatic Nuisance Species (ANS) can have substantial ecological and economic impacts. (LCBP, 2003) Currently, alewife, zebra mussel, purple loosestrife, Eurasian watermilfoil, Japanese knotweed and water chestnut are found in or on the shores of Lake Champlain. (LCBP, 2006)

*Accomplishments:*

- The Lake Champlain Basin Aquatic Nuisance Species Management Plan was revised in 2005, making the Basin eligible for funding from the US Fish and Wildlife Service for control programs.
- The LCBP has funded water chestnut control since its creation and the acreage of the Lake that needs consistent mechanical harvesting has been greatly reduced.
- LCBP invited representatives from other alewife-infested waters to discuss the possible impacts to Lake Champlain. (LCBP, 2006)

*Actions:*

- Prevent the spread and control the population of water chestnut within the Lake and throughout the Basin.

- Support implementation of a long-term sea lamprey control program.
- Prevent the spread of alewives within and beyond the Basin.
- Prevent the spread of zebra mussels to other Basin lakes. (LCBP, 2003)

*Goal:*

Manage Lake Champlain, its shorelines and its tributaries for a diversity of recreational uses while protecting its natural and cultural resources.

Lake Champlain is a popular recreation resource for Basin residents and visitors. Both water depended and water enhanced recreation activities such as swimming, fishing scuba diving, boating, biking, hiking, sightseeing and bird watching are popular within the Basin. Lake recreationists affect and are affected by the state of the natural, cultural and historic resources of the region. Protection and enhancement of these resources is important. More opportunities to access and enjoy the Lake will foster a sense of stewardship among the many recreation user groups thus increasing the overall quality of the Lake. (LCBP, 2003)

*Accomplishments:*

- In 2006, a complete renovation of the Ticonderoga Boat Launch was completed, creating a state of the art, fully accessible boat launching facility.

*Actions:*

- Encourage new opportunities for ecologically sustainable recreation in the Basin.
- Determine, monitor and mitigate the impact of increased recreational use in ecologically sensitive areas.
- Develop new public access opportunities.
- Pursue funding alternatives for public access site enhancement

# Beaches Environmental Assessment and Coastal Health Act (BEACH Act)

To improve water quality testing at the beach and help beach managers better inform the public when there are water quality problems, Congress passed the Beaches Environmental Assessment and Coastal Health Act (BEACH Act) in October 2000. This Act authorizes EPA to award grants to eligible state, tribes and territories to develop and implement beach water quality monitoring and notification programs at coastal and Great Lakes beaches. The New York State Department of Health has received grants (of up to \$347,000) each year from EPA to administer this program. The BEACH grant money is provided to County Health Departments and NYS Office of Parks, Recreation and Historic Preservation to implement monitoring and public notification programs for beaches along the Atlantic Coast, Long Island Sound and Lakes Erie and Ontario.

# American Heritage River Initiative

Created in 1997, the American Heritage Rivers Initiative (AHRI) has three major objectives: natural resource and environmental protection, economic revitalization, and historic and cultural preservation. The program is designed to make federal funding and technical expertise available to the State and local governments to reclaim the health,

heritage and economic viability of river communities (U.S. EPA, 2006).

Each designated river received a "River Navigator," a federal or federally funded professional who identifies complementary programs and resources to carry out the community's vision for its river and surrounding community (ies). Federal funding for the Hudson River Navigator position was discontinued in September of 2007. Efforts to continue the position and the Navigator's work are on-going.

The Hudson River was nominated in 1998, as an American Heritage River. The 315 miles of river, from its source in Lake Tear of the Clouds to the Verrazano Narrows, and the 19 counties surrounding its shores are included in the Heritage River Area.

Accomplishments made through this program include:

- a donation from Camp Dresser and McKee engineering to the City of Hudson to renovate their Hudson River Park
- the development of a partnership between AHRI and the Hudson-Mohawk Resources Conservation and Development Area to conserve and protect the seven remaining Hudson River lighthouses
- in 2003, a Hudson River Navigator was hired after a one year vacancy
- DEC acquired property at Turkey Point, which was an AHRI keystone project
- completion of the "Hudson River Lighthouse Tour"
- a Navigator's Conference held a workshop highlighting the needs for shallow water dredging in the Hudson River to maintain shores and basins for use by recreational boaters, and to discuss protecting the river from invasive species
- the creation of the "Fresh Off the Barge" farmers market in the Lower-Hudson area
- the annual Hudson River Navigator's Conference was held in March,

2006 at Pace University in White Plains, NY and focused on promoting clean air and exploring alternative bio-fuels

- the Hudson River Navigator secured a \$250,000 contribution for an endowment for the Hudson River Valley Institute at Marist College
- a partnership with the AHRI, US Military Academy at West Point, the US Department of Defence, Coastal America and the Village of Croton was developed a project to remove railroad ties from shallow Hudson River waters. When completed this project will provide improved habitat for fish, wildlife and plant communities, enhance small boat access and improve recreational opportunities in the Croton Bay
- the AHRI, the Hudson River Navigator, the Hudson River Valley Institute and the Hudson River Valley National Heritage Area have partnered with the New York State Hudson-Fulton-Champlain Quadricentennial Commission to promote the celebration of Henry Hudson's historic voyage

# National Park Service

## National Heritage Areas and Corridors

National heritage areas and corridors represent a relatively new, but growing, approach to conserving America's rich culture and history. The first national heritage corridor was designated by Congress in 1984. Today there are thirty-seven heritage areas or corridors around the country. Three of the most recently designated areas are located within New York State — the Hudson River Valley National Heritage Area (designated in 1996), the Erie Canalway National Heritage Corridor (designated in 2000) and the Champlain Valley National Heritage Partnership (designated in 2006).

All national heritage areas and corridors must complete a management plan that sets forth its goals, objectives, programs and management entity. This plan is approved by the Secretary of the Interior, and requires local input, review and approvals prior to completion. The role of the National Park Service, depending on the enabling legislation, may include providing technical, planning, and staff assistance, funding, and review and approval of the management plan.

### Hudson River Valley National Heritage Area

Congress designated the Hudson River Valley National Heritage Area in Section 907 of Title IX of Public Law

104-333 (1996). The purpose of the act is to:

- Recognize the importance of the history and the resources of the Hudson River Valley to the nation.
- Assist the State and the communities of the Hudson River Valley in preserving, protection and interpreting these resources for the benefit of the nation
- Authorize federal financial and technical assistance to serve these purposes.

Extending across 4 million acres in 10 counties (Albany, Rensselaer, Greene, Columbia, Ulster, Dutchess, Orange, Putnam, Rockland and Westchester) and the Town of Waterford in Saratoga County, the Hudson River Valley is home to 2.5 million residents. While surrounded by one of the most concentrated human populations in the country, the Hudson River estuary incorporates over 2,000 acres of tidal freshwater wetlands and many more acres of brackish tidal wetlands.

A draft Management Plan for the National Heritage Area was released for public comment in November 2000. Following the public comment period, the plan was approved by the Hudson River Valley Greenway Boards of Directors and submitted to the National Park Service for review and delivery to the Secretary of the Interior for approval. The management plan was approved by the Secretary in 2002.

### Erie Canalway National Heritage Corridor

The Erie Canalway National Heritage Corridor Act (PL 106-554, Title VIII) was signed into law on December 21, 2000. The purpose of the act is to:

- Provide for and assist in the identification, preservation, promotion, maintenance and interpretation of the historical, natural, cultural, scenic, and recreational resources

of the Erie Canalway in ways that reflect its national significance.

- Promote and provide access to the Erie Canalway's historical, natural, cultural, scenic and recreational resources.
- Provide a framework to assist the State of New York and its communities within the Erie Canalway in the development of integrated cultural, historical, recreational, economic, and community development programs in order to enhance and interpret the unique and nationally significant resources of the Erie Canalway.

The Act creates a 27 member federal commission appointed by the Secretary of the Interior, based primarily upon recommendations of the Governor and Congressional and Senate delegation. Appointments to the Commission were made in April 2002.

Not later than three years after the Commission receives Federal funding for this purpose, The Commission prepared a comprehensive preservation and management Canalway Plan which incorporated and integrated existing federal, state and local plans. The plan was submitted to the Secretary and the Governor for review and received approvals in 2006. The Commission will undertake actions to implement the plan and support public and private efforts in conservation and preservation of the Canalway's cultural and natural resources and economic revitalization.

The Erie Canalway runs through 23 counties and incorporates over 230 municipalities within its boundary. The Erie Canalway National Heritage Corridor includes the navigable New York State Canal System, the remaining elements of the earlier phases of the Erie, Champlain, Oswego and Cayuga-Seneca canals, and those municipalities that lie immediately adjacent to the navigable waterway and earlier remnants. The New York State Canal System shall continue to be owned, operated and

## *Statewide Programs*

maintained by the New York State Canal Corporation.

### **Champlain Valley National Heritage Partnership**

The Champlain Valley National Heritage Partnership Act created the National Heritage Area in 2006. The purpose of this act is:

- To establish the Champlain Valley National Heritage Partnership in the States of Vermont and New York to recognize the importance of the historical, cultural, and recreational resources of the Champlain Valley region of the United States;
- To assist the States of Vermont and New York, including units of local government and nongovernmental organizations in the States, in preserving, protecting, and interpreting those resources for the benefit of the people of the United States;
- To use those resources and the theme “the making of nations and corridors of commerce” to
  - Revitalize the economy of communities in the Champlain Valley; and
  - Generate and sustain increased levels of tourism in the Champlain Valley;
- To encourage
  - Partnerships among State and local governments and nongovernmental organizations in the United States; and
  - Collaboration with Canada and the Province of Quebec to
    - Interpret and promote the history of the waterways of the Champlain Valley region;
    - Form stronger bonds between the United States and Canada; and
    - Promote the international aspects of the Champlain Valley region; and

- To provide financial and technical assistance for the purposes described above.

The region within the Heritage Area includes:

- The linked navigable waterways of:
  - Lake Champlain
  - Lake George
  - The Champlain Canal
  - The portion of the Upper Hudson River extending south to Saratoga;
- Portions of Grand Isle, Franklin, Chittenden, Addison, Rutland, and Bennington Counties in the State of Vermont;
- Portions of Clinton, Essex, Warren, Saratoga and Washington Counties in the State of New York.

The Lake Champlain Basin Program is the management entity for the development of the management plan that is due in 2009.

# National Oceanic and Atmospheric Administration

## National Estuarine Research Reserve (NERR) System

The National Estuarine Research Reserve System is a network of protected areas established for long-term research, education and stewardship. This partnership program between NOAA and the coastal states protects more than one million acres of estuarine land and water, which provides essential habitat for wildlife; offers educational opportunities for students, teachers and the public; and serves as living laboratories for scientists (NOAA, 2006). The National Estuarine Research Reserve System includes 27 reserves in 22 states and Puerto Rico (NYS DEC, 2008).

There is one reserve in New York State located along the Hudson River Estuary. Four distinct tidal wetland sites encompassing nearly 5,000 acres along 100 miles of the Hudson River Estuary were designated the Hudson River National Estuarine Research Reserve in 1982, as field laboratories for estuarine research, stewardship and education (NOAA, 2007; DEC, 2008). The four sites that make up the Reserve include: Stockport Flats in Columbia County, Tivoli Bays in Dutchess County,

and Piermont Marsh and Iona Island in Rockland County (DEC, 2008). NYS DEC is the primary partner in coordinating and conducting programs within the reserve. OPRHP owns property within the Stockport Flats and the Iona Island components of the Reserve.

### Norrie Point Environmental Center

The reserve's headquarters at Norrie Point Environmental Center within Mills-Norrie State Park in Staatsburg, Dutchess County, is located directly on the Hudson River and includes conference and classroom space, interpretive exhibits, and a weather station. Construction on a research lab began in 2007 and is expected to be completed in 2008.

Additional reserve facilities include a research base and weather station at Bard College Field Station on Tivoli South Bay; a major interpretive exhibit at the Tivoli Bays Visitor Center in Tivoli, Dutchess County; and on-site interpretive panels at Piermont Marsh, Tivoli Bays and Stockport Flats (DEC, 2008).

Reserve staff and partners conduct estuarine research studies of physical, biological and chemical characterizations; ecosystem processes; and exchanges between wetlands and the Hudson's main stem. Research provides a solid foundation for all reserve programs in education, outreach, training, stewardship and restoration (DEC, 2008).

The Reserve holds many public events and workshops. Education and outreach include guided canoe programs, lectures, interpretive exhibits and community events for the general public; information and training sessions for coastal decision makers; workshops for teachers; and field-based programs for middle school, high school, and post-secondary students (DEC, 2008).

## Stockport Flats

Stockport Flats is the northernmost site in the Hudson River Reserve. It is located on the east shore in Columbia County, a few miles north of the city of Hudson, in the towns of Stockport and Stuyvesant (DEC, 2008).

The Stockport Flats site is a five-mile, narrow mosaic of landforms, including from north to south Nutten Hook, a bedrock outcropping; Gay's Point and Stockport Middle Ground Island, dredge features that are both part of the Hudson River Islands State Park; the mouth of Stockport Creek, a large tributary stream; a portion of the upland bluff south of Stockport Creek; the dredge spoils and tidal wetlands between Stockport Creek and Priming Hook; and the northern end of Priming Hook. The Hudson is entirely tidal freshwater at this site (DEC, 2008).

Stockport Flats is dominated by freshwater tidal wetlands, including subtidal shallows, intertidal mudflats, intertidal shores, tidal marshes and floodplain swamps. Stockport Creek drains a watershed of about 500 square miles (DEC, 2008).

Nutten Hook at Stockport features the remains of the largest icehouse on the Hudson, which is listed on the National and New York State Registers of Historic Places. Interpretive panels relate the history of the ice harvesting industry. There is a hand boat launch on Ferry Road in Nutten Hook and at Stockport Creek. A loop hiking trail from Ferry Road goes to the Ice House (DEC, 2008).

## Tivoli Bay

The Tivoli Bay component extends for two miles along the east shore of the Hudson River between the villages of Tivoli and Barrytown, in the Dutchess County town of Red Hook. The Tivoli

## Statewide Programs

Bay's site includes two large coves on the east shore of the Hudson River including Tivoli North Bay, a large intertidal marsh and Tivoli South Bay, a large, shallow cove with mudflats exposed at low tide. The site also includes an extensive upland buffer area bordering North Tivoli Bay; sections of upland shoreline along Tivoli South Bay; Cruger Island and Magdalene Island, two bedrock islands, extensive subtidal shallows; and the mouths of two tributary streams, the Stony Creek and the Saw Kill (DEC, 2008).

Tivoli Bay habitats include freshwater intertidal marsh, open waters, riparian areas, subtidal shallows, mudflats, tidal swamp and mixed forest uplands. The Stony Creek has a watershed area of 22.2 square miles draining into Tivoli North Bay, and the Saw Kill has a watershed of 22.0 square miles draining into Tivoli South Bay. There are extensive hiking trails at Tivoli Bays and a canoe launch in North Bay, off Kidd Lane off Route 9W in the Town of Red Hook. Contact the Reserve headquarters for maps (DEC, 2008).

## Tivoli Bays Visitor Center: Doorway to the Bays

Tivoli Bays Visitor Center has hands-on exhibits about the Tivoli Bays and is the starting point for a trail that leads to North Bay. It is located at the Watts dePeyster Fireman's Hall, 1 Tivoli Commons, Village of Tivoli. The Tivoli Bays Visitor Center is home to the Hudson River Collection, an extension of the Tivoli Free Library (DEC, 2008).

## Iona Island

Iona Island is located in Bear Mountain State Park on the east side of Route 9W in the Town of Stony Point in Rockland County, six miles south of West Point. Iona Island is a bedrock island in the midst of the Hudson Highlands, bordered to the west and

the southwest by Salisbury and Ring Meadows, two large tidal marshes, the mouth of Doodletown Bight, an expanse of shallows and mudflats. A separate Island, Round Island, was attached to the South end of Iona Island with fill in the early 20th century. The marshes and shallows occupy one mile between Iona Island and the west shore. In addition to being part of the Hudson River National Estuarine Research Reserve, Iona Island and its associated tidal wetlands have been designated a National Natural Landmark by the National Park Service (DEC, 2008).

The area of Iona Island is comprised of brackish intertidal mudflats, brackish tidal marsh, freshwater tidal marsh and deciduous forested uplands. Doodletown Brook is the principal tributary to the site, draining approximately 2.9 square miles. The Iona Island Component encompasses 556 acres. The marsh at Iona Island can be viewed along the causeway (off Route 9W), accessible by car or on foot. Visitors can not cross the railroad tracks (DEC, 2008).

## Piermont Marsh

Piermont Marsh encompasses 1,017 acres and lies at the southern edge of the village of Piermont, four miles south of Nyack in Rockland County. The Piermont Marsh is on the western shore of the Tappan Zee. The site occupies two miles of shoreline south of the mile-long Erie Pier and includes the mouth of Sparkill Creek and extensive tidal shallows. Piermont marsh habitats include brackish tidal marsh, shallows and intertidal flats. The Sparkill Creek drains 11.1 square miles of watershed. There is a picnic area on Paradise Avenue in Piermont. Nearby, Tallman Mountain State Park offers many recreational opportunities (DEC, 2008).

# Sea Grant

Sea Grant is a nationwide network (administered through NOAA), of 30 university-based programs that work with coastal communities. The National Sea Grant College Program engages this network of the nation's top universities in conducting scientific research, education, training, and extension projects designed to foster science-based decisions about the use and conservation of our aquatic resources (Sea Grant National, 2008). Sea Grant operates the National Aquatic Nuisance Species Clearinghouse, an international library of research, public policy, and outreach education publications pertaining to invasive marine and fresh-water aquatic nuisance species in North America (Sea Grant, 2008).

New York Sea Grant Extension is a State and federally-funded program providing science-based information to people making and influencing decisions for the wise development, management and use of our coastal resources - now and in the future.

Extension specialists work with a variety of audiences throughout Long Island, Manhattan, and New York's Hudson Valley, and along the shores of Lake Ontario, Lake Erie, Lake Champlain, the St. Lawrence River and the Niagara River on these issues:

- Fostering coastal businesses
- Improving the quality of seafood
- Maintaining recreational and marine fisheries
- Preparing for and responding to coastal hazards and water level changes
- Responding to the spread and impacts of aquatic nuisance species
- Providing K-12 educators with Sea Grant resources
- Protecting, enhancing and restoring coastal habitats

Sea Grant Extension provides educational materials such as fact sheets,

periodicals, books, and videos; conducts seminars, training programs and demonstration projects; and engages and informs the general public, government officials, coastal managers, scientists, industry, the media and schools regarding coastal resources (Sea Grant, 2008).

# **U.S. Geological Survey**

The Nonindigenous Aquatic Species (NAS) information resource for the U.S. Geological Survey (USGS) was established as a central repository for accurate and spatially referenced biogeographic accounts of nonindigenous aquatic species. The program provides scientific reports, online/real-time queries, spatial data sets, regional contact lists, and general information. The data is made available for use by biologists, interagency groups, and the general public. The geographical coverage is the United States. The database was originally started with the passage of the Nonindigenous Aquatic Nuisance Species Control and Prevention Act of 1990 (P.L. 101-646). The Act created the Aquatic Nuisance Species Task Force. In turn the Task Force created the NAS repository (USGS, 2007).

# **U.S. Department of Agriculture**

## **Animal and Plant Health Inspection Service (APHIS)**

The USDA/APHIS Cooperative Agricultural Pest Survey (CAPS) works to ensure the early detection of harmful or economically significant plant pests and weeds in a nationally directed survey program through the CAPS network. The program works with State and university cooperators through national, regional, and State level committees to prioritize survey projects and provides funds for State cooperators to conduct the agreed-upon surveys. The program also trains and equips State cooperators to conduct national surveys. The New York State Department of Agriculture and Markets is the State's coordinator of the CAPS program. Additional information is available at <http://www.agmkt.state.ny.us/PI/PIHome.html>.

# Statewide Programs

## Accessibility

The Americans with Disabilities Act (ADA), along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on the manner by which people with disabilities are afforded equality in their recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities and use of public accommodations. Title II of the ADA applies to public entities and requires, in part, that reasonable modifications must be made to its services and programs, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden. Since recreation is an acknowledged public accommodation program of several of the State's agencies, and there are services and activities associated with that program, these agencies have the mandated obligation to comply with the ADA, Title II and ADA Accessibility Guidelines (ADAAG), as well as Section 504 of the Rehabilitation Act.

The ADA requires a public entity to thoroughly examine each of its programs and services to determine the level of accessibility provided. The examination involves the identification of all existing programs and services and a formal assessment to determine the degree of accessibility provided to each. The assessment includes the use of the standards established by the Federal Department of Justice Rule as delineated by the Americans with Disabilities

Act Accessibility Guidelines (ADAAG, either adopted or proposed) and/or the New York State Uniform Fire Prevention and Building Codes, as appropriate. An assessment of current facilities will also establish the need for new ones or to upgrade the existing facilities. However, no public entity is required to make each existing facility and asset accessible.

### The Americans with Disabilities Act Accessibility Guidelines

The Americans with Disabilities Act (ADA) requires public agencies to employ specific guidelines which ensure that buildings, facilities, programs and vehicles as addressed by the ADA are accessible in terms of architecture and design, transportation and communication to individuals with disabilities. A federal agency known as the Access Board has issued the ADAAG for this purpose. The Department of Justice Rule provides authority to these guidelines.

The Access Board has proposed guidelines to expand ADAAG to cover outdoor developed facilities managed by the federal government including: trails, campgrounds, picnic areas and beaches. The proposed ADAAG are available through the access board website at [www.access-board.gov](http://www.access-board.gov).

ADAAG apply to newly constructed structures and facilities and alterations to existing structures and facilities. Further, it applies to fixed structures or facilities, i.e., those that are attached to the earth or another structure that is attached to the earth. Therefore, when a public entity is planning the construction of new recreational facilities, or assets that support recreational facilities, or is considering an alteration of existing recreational facilities or the assets supporting them, it must also consider providing access to the facilities or elements for people with disabilities. The standards which exist in ADAAG or are contained in the proposed ADAAG also provide guidance

for modifications to trails, picnic areas, campgrounds (or sites) and beaches in order to obtain programmatic compliance with the ADA. In order to achieve programmatic compliance, ADAAG is a suggested reference, since no standards exist in the ADA. Further, proposed ADAAG do require all trail construction and alteration to comply unless one or more of the general conditions for exception exist or individual standards can be excepted or exempted. The other outdoor components in the proposed ADAAG (campgrounds, beaches and picnic areas) do not require all elements to be accessible; a percentage of the total available must be compliant.

### ADAAG Application

Current and proposed ADAAG can also be used in assessing existing facilities or assets to determine compliance to accessibility standards. ADAAG are not intended or designed for this purpose, but using them to establish accessibility levels lend credibility to the assessment result. Management recommendations by a public entity for recreational facilities will be served well if developed in accordance with the ADAAG for the built environment, the proposed ADAAG for outdoor developed areas, the New York State Uniform Fire Prevention and Building Codes and other appropriate guidance documents. Until such time as the proposed ADAAG becomes an adopted rule of the Department of Justice, public entities are required to use the best information available to comply with the ADA; this direction does include the proposed guidelines.

#### *Goal*

Improve the level of access to parks, historic sites and open space areas to persons with disabilities.

#### *Actions*

- Survey existing facilities to determine if they are accessible.
- Identify actions that will be required to make facilities accessible.

- Utilize the proposed ADAAG to make recreation facilities accessible.
- Incorporate accessibility standards in all new construction and major modifications of existing facilities.

*Goal*

Improve recreation providers' understanding of the needs of persons with disabilities.

*Actions*

- Encourage training programs to improve the means of communicating with people with disabilities.

## Universal Access Program

Public recreation agencies should consider developing a Universal Access Program. DEC for example has made significant strides in developing such a program.

Since 2001, the DEC has coordinated efforts to provide access to programs through the efforts of Access Coordinators in each regional office and a Statewide Coordinator for Access Issues located in the Department's central office. Their role is to assess the level of accessibility to programs and services, identify barriers, develop solutions to improve access, provide technical assistance and in-service training and provide outreach and education to promote our accessible areas.

The goal of the UAP is to develop a comprehensive approach to maximize accessibility to programs and services while ensuring consistency with the other legal mandates of conservation and protection of the resources we manage.

Looking beyond the legal minimum requirements for providing access for persons with disabilities, the UAP has promoted the employment of Universal Design principles for new construction. Universal Design enables use by everyone rather than a portion of the population. This inclusive approach

makes sense from a planning perspective as it includes not only people with disabilities, but families, seniors, people with temporary or invisible disabilities and the people that they recreate with.

## Access Pass

An Access Pass program provides free use of parks, historic sites, and recreational facilities operated by the New York State Office of Parks, Recreation and Historic Preservation and the New York State Department of Environmental Conservation. Qualified persons with permanent disabilities can obtain a pass for free use of facilities operated by these offices, for which there is normally a charge such as for parking, camping, green fees and swimming. The pass, however, is not valid at any facility within a park operated by a private concern under contract to the State, or for a waiver of fees such as those for seasonal marina dockage, for a group camp, for reservations of a picnic shelter, for performing arts programs, for campsite/cabin amenities, for consumables, or for fees related to campsite/cabin reservations and registrations.

## Golden Park Program

A Golden Park Program provides free vehicle access to state parks and arboreturns, fee reduction to state historic sites and fee reduction for state-operated swimming, golf, tennis and boat rental for resident 62 years of age or older on any weekday (except holidays).

## Empire Passport

The Empire Passport provides unlimited day use vehicle entry to most of New York's State parks and recreational facilities for a one time purchase price. The Passport can be used from April 1 to March 31 of the following year and provides access to most of the 178 state parks, 55 Department of Environmental Conservation (DEC) forest preserve areas, as well as to boat launch sites, arboreturns and park preserves. A second passport for the same household can be purchased at a reduced rate, which may be used on a second vehicle, boat or motorcycle.

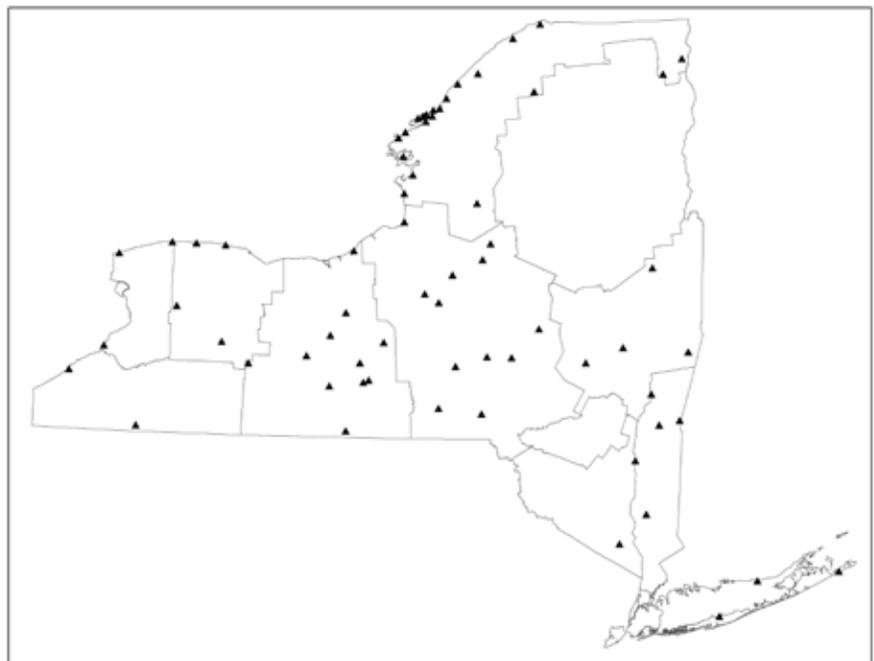


Figure 7.7 - OPRHP Camping Facilities

