



**New York State Department of Environmental Conservation**

**Report to the Fall Convention of the  
New York State Conservation Council,  
Inc.**

(Compiled)

**September 2009**

**David Paterson, Governor**

**Pete Grannis, Commissioner**

Dear New York State Conservation Council Members:

I am happy to provide to you the New York State Department of Environmental Conservation (DEC) 2009 Report to the Fall Convention of the New York State Conservation Council, Inc. This report highlights many of the accomplishments DEC has made during the past year to improve management and protection of New York fish and wildlife resources and the critical habitats that support them, and to enhance opportunities to enjoy New York's tremendously diverse, high-quality natural resources.

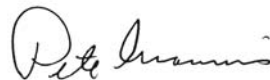
Similar to last year, this report is a summary of some of the highlights and accomplishments during the past 12 months or so. It is available on DEC's website at [www.dec.ny.gov/about/37709.html](http://www.dec.ny.gov/about/37709.html).

This year's report format is the compilation of DEC's efforts under our agency's issue and organizational priorities:

- Connect New Yorkers to Nature
- Promote a Toxic-Free Future
- Safeguard New York's Unique Natural Areas
- Work for Environmental Justice
- Combat Climate Change
- Foster Green and Healthy Communities
- Fair and Effective Enforcement
- Partnerships and the Public
- Workforce, Science and Technology
- Sustainability of DEC's Own Operations

By combining the various divisions' efforts under DEC's priorities, I hope to enforce that, throughout the agency, we are all working together to deliver programs that continue to make New York State one of the premier paces to hunt, fish, trap and enjoy the outdoors.

Sincerely,



Pete Grannis

## ***Connect New Yorkers to Nature***

*We conserve our environment not just to protect our health and enforce the law, but so that we and future generations can experience the joy of a hike or hunt in the woods, the thrill of a swim at a clean beach or the beauty of an unspoiled view. Whether an urban waterfront park or a wilderness paddle, these connections to nature can refresh, teach and sustain us.*

*While use and demand for DEC's campgrounds, education centers and youth camps remains high, participation in hunting and fishing has declined in recent years, and the Conservation Fund ended the last fiscal year with a \$21 million deficit. Meanwhile, research has documented a shift away from outdoor activities in the general population. DEC can help reverse this trend by helping more families rediscover the natural world.*

*Under this priority area, DEC will continue to promote environmental education and outdoor experiences for all. The department will increase participation in hiking, camping, fishing, bird-watching, hunting and trapping and seek to provide state-of-the-art facilities and opportunities for high-quality outdoor experiences. DEC will make a special effort to preserve and provide access to waters and green space close to where people live and work and reach out to under-served populations. Our efforts to connect New Yorkers to nature will be conducted with the goal of providing access, increasing environmental literacy, enhancing public health and quality of life and building the next generation of New Yorkers that care about conservation.*

**2008 Deer and Bear Harvest** - Hunters harvested approximately 223,000 deer in the 2008 hunting season. Take included 105,747 bucks and 117,232 antlerless deer, both slight increases from 2007 takes. Pre-season predictions of a 5-10% increase in take were unmet, primarily due to rough weather during the first week of the Southern Zone regular season during which the majority of our annual deer harvest typically occurs. Over 15,000 junior hunters took advantage of the "junior hunter mentoring program," a newly created law signed by Governor David A. Paterson in the summer of 2008.

Black bear harvests increased in all of New York State's bear hunting ranges in 2008, setting new records across the Catskill and Allegany bear hunting areas. Statewide, hunters took 1,295 black bears, a 15% increase from the 1,117 bears taken in 2007. In the Allegany bear hunting area of central and western New York, hunters took a record 193 bears, far exceeding the previous record of 120 bears taken last year. Similarly, the 520 bears taken this year in the Catskill bear hunting area of southeastern New York topped the 2005 record harvest of 494 bears. Harvest increased in the Adirondacks as well, with a total of 582 bears taken in 2008 compared to 544 taken in 2007 and 318 taken in 2006. Hunters reported taking 18 bears in the 13 Wildlife Management Units that were opened for bear hunting this year in central and western New York.

**Fishing's Great in NY's Great Lakes** - Lake Ontario trout and salmon anglers are again enjoying record-breaking success in 2009. Results from the DEC's Lake Ontario Fishing Boat Survey reveal that trout and salmon angling quality, as measured by angler catch per hour for all trout and salmon species combined during the months of May through July, was the highest observed in the 25 year history of the survey. Particularly noteworthy are high catch rates for Chinook and coho salmon, and rainbow trout.

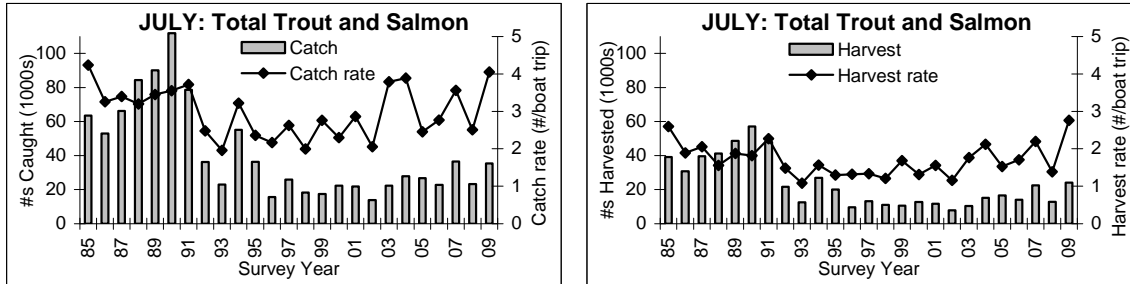


Figure 1 Catch, catch rate, harvest and harvest rate of trout and salmon from New York's Lake Ontario, July 2009.

Lake Erie is seeing a marked resurgence in the yellow perch fishery. Survey netting measures of both adult and juvenile yellow perch abundance each of the last three years have been especially high in Lake Erie. Accompanying boat fishing surveys have found yellow perch fishing quality to have also been superb through recent years as evidenced by high catch rates of quality sized perch in excess of 10 inches. Exceptionally good spawning success in recent years, accompanied by good survival rates, together forecast that Lake Erie's high quality perch fishing will continue for a few more years.

**Spring 2009 Wild Turkey Season and Youth Hunt Update** - The sixth annual Youth Turkey Hunt was held April 25-26, and was once again greeted with enthusiasm by young hunters and their adult mentors. Junior hunters reported taking about 616 birds, a decrease of about 22% from the previous year. This decrease may be related to several factors including fewer jakes (juvenile male turkeys) available to hunters due to below-average production during summer 2008, and unseasonably warm weather in many regions during the two-day hunt.

Through May 27th, the spring 2009 reported harvest was about 7,900 birds, very similar to last spring (down about 1% overall); however, not all birds taken were reported (although it is a legal requirement), so we will adjust this figure using data from the turkey hunter survey over the next few weeks to more accurately represent the actual harvest. Based on good production in summer 2007, followed by below-average production in 2008 and a relatively mild winter, we anticipated a harvest similar to or slightly lower than last year.

This spring, the Bureau of Wildlife created a Hunting and Trapping Photo Gallery for successful junior hunters (ages 12-15), young trappers (under age 16), and hunters who have harvested their first big or small game animal. The Gallery and instructions for submitting photos can be found at <http://www.dec.ny.gov/outdoor/54055>.



Long Island turkey hunting season established - In June 2009, DEC finalized a regulation establishing the first wild turkey hunting season on Long Island. The inaugural season will take place November 21-15, 2009, will have a one-bird bag limit (either sex), and will be open in all of Suffolk County (go to <http://www.dec.ny.gov/outdoor/29461.html> for season dates and map).

The opening of this season is a direct result of more than a decade of wild turkey reintroduction efforts by the DEC, as well as the cooperative efforts of local hunters and volunteers who took the time to fill out and submit surveys of turkey sightings that allow DEC staff to estimate population distribution and abundance. The Long Island population is now estimated at more than 3,000 birds and DEC biologists feel it is secure enough to sustain a limited harvest. In some localities, turkeys have become a nuisance or caused property damage, and we expect these problems to increase in the future in both suburban and agricultural areas. A hunting season would help control population growth and may help prevent or provide relief from some of these problems. Furthermore, a fall season for wild turkey is consistent with current hunting opportunities on Long Island, and will provide a quality hunting and outdoor experience to better connect New Yorkers to nature.

Hunting regulations are the same as for fall turkey hunting elsewhere in New York State and other small game hunting on Long Island. Hunters will be strongly encouraged to bring harvested birds to the hunter check station so DEC staff can record biological data; however, this will not be mandatory. The DEC's Sportsman Education Program will be holding special seminars to emphasize the importance of turkey hunting safety due to the opening of the new season. These seminars are not required in order to hunt turkey on Long Island, but are strongly recommended. For information on dates and locations, please contact the Region 1 office in Stony Brook (631-444-0255).

#### **Youth Camp/Campground Angler Education Program Completed -**

Bureau of Fisheries staff conducted fishing education programs at DEC campgrounds and summer camps for approximately 900 participants during July and August. Staff also assisted with the fishing program at YMCA Camp Chingachgook on Lake George. Program participants learned a variety of topics including fish ID, knot tying, fishing regulations and casting basics. Fishing equipment and bait was provided to all participants.



#### **The National Archery in the Schools Program of NY (NASP-NY) -**

The National Archery in the Schools Program (NASP) started in New York in January 2008. The program promotes student education, physical education, and participation in the life-long sport of archery. The NASP continues to grow at an ever-increasing rate with 857,000 students participating in the program in the 2007-2008 school year. As of today, 4,700 schools in 46 states, Canada, and Australia have adopted the NASP.

Students who do not normally participate and enjoy sports-related or extra-curricular activities seem to excel in this program, something that invariably carries over into their attitude, work habits and other school activities. The NASP often inspires after school activities shared by families and friends. The program teaches discipline, respect, and self-control. In a survey conducted three years ago, 27% of NASP graduates reported purchasing personal archery equipment to continue their archery activities after school. About 37% of schools in the program have started after-school archery clubs.



The pilot program in New York now has 28 schools from 21 school districts, with another 9 schools trained and looking for funding.

There are now 140 certified Basic Archery Instructors (BAI) and 15 certified Basic Archery Instructor Trainers. The First Annual New York State NASP (Virtual) State Tournament was recently completed, 166 students from eight schools participated, and the top male and female along with two other students plan on shooting at the national tournament in Kentucky in May

Staff participated in the 2009 Rochester, Hamburg and Turning Stone sportsman and outdoor shows and also set up a booth and presentation at the New York Bowhunters annual meeting and banquet. An additional 25 schools will be signed up for the 2009-2010 school year.

**Access to New York City DEP Lands** - The state, the city and locals teamed to expand Catskills recreational opportunities on a number of fronts over the last two years. In the fall of 2008, the Department and NYCDEP entered into an agreement that opened up 13,000 acres of city-owned lands adjacent to state land within the Catskills to hiking, hunting, fishing and trapping, without the need for a city access permit or other approval from NYCDEP. In May 2009 a three-year pilot boating program for the Cannonsville Reservoir was also introduced. This pilot program will now allow individuals to recreate on the Cannonsville Reservoir using several different types of watercraft including canoes, kayaks, sculls and sailboats.

**Public Fishing Rights Maps** - Public fishing rights (PFR) maps have been completed or upgraded for almost every DEC region with PFR holdings. The maps, which are now available in a downloadable format at [www.dec.ny.gov/outdoor/9924.html](http://www.dec.ny.gov/outdoor/9924.html), not only provide anglers with a map of the stream section, but also official parking locations where they can access the holding. In addition to the downloadable maps, PFR holdings and parking areas will soon be available on the Department's State Land Interactive Map and can also be viewed via Google Earth at [www.dec.ny.gov/pubs/212.html](http://www.dec.ny.gov/pubs/212.html). In addition to the information above, users will also be able to acquire driving directions to the specific parking area.



**Pheasant Program** – New York's long-running pheasant propagation program continues to operate after being slated for closure in December of 2008. Governor Paterson halted the closure of the Reynolds Game Farm when state officials and hunting groups agreed to explore options to fully support the costs of the program with increased license fees. With the adoption of a new license fee structure for 2009-2010, the game farm was not closed and remains on target to complete another successful pheasant production season. Obligations for the Cooperative Day-old Pheasant Chick and Young Pheasant Release Programs have been



fulfilled and production of adult pheasants for stocking in the fall is progressing nicely. In addition, adult pheasants will be distributed for a national field trial, Youth Pheasant Hunt weekends, and organized hunts for youth, women, novice and people with disabilities.

New York's Pheasant Program is guided by a ten-year management plan that expired in June 2009. Revision of the plan began by forming a DEC Pheasant Plan Revision Team, preparation and

discussion of some specific pheasant issues, and beginning a small outreach effort to determine the thoughts and desires of pheasant hunters. Some topics under review include hunting seasons, field trials, cock and hen hunting areas, habitat focus areas, cooperative pheasant rearing and release programs and hunting areas for people with disabilities. A draft pheasant management plan is being prepared for widespread distribution and public comment in September. The final document will be adopted for implementation in 2010.

**Implementation of the 50-day Walleye Fingerling Stocking Program** - A five-year experimental walleye stocking program was implemented in nine lakes throughout the northern, central and western regions of the State. These waters were chosen for stocking because natural reproduction of walleye is limited, or lacking altogether, or the lake requires an introduction of walleye in order to establish a population. Approximately 250,000 tank-raised, early stage (50 days old and about 1.5 inches long) fingerlings were raised at the Oneida Hatchery for this program. These fish constitute a new category of hatchery raised fingerlings, whereas traditional "Pond Fingerlings" are raised for a bit longer. During stocking these "50-day" fingerlings held up well, appeared very hardy, and experienced very little mortality. The success of these stockings will be closely monitored by regional fisheries staff on an annual basis for the next 5-7 years. If successful, this program will provide capacity to improve, and expand the number of, walleye fisheries in New York.



**DEC Website** - The website averaged 21,659 visits a day, totaling 8,204,123 in 2008. The web team continues to improve functions and add new content to the site, including DEC TV <http://www.dec.ny.gov/dectv/dectv.html>, a new online video player with videos on outdoor recreation, nature, wildlife, and environmental issues; Watchable Wildlife <http://www.dec.ny.gov/outdoor/55423.html>, a guide to New York wildlife viewing areas; online events calendar; and an expanded section promoting accessible recreation on public lands.

Continuing web features include Outdoor Discovery <http://www.dec.ny.gov/public/43355.html>, a biweekly electronic newsletter with family-friendly outdoor activities; Green Living <http://www.dec.ny.gov/public/337.html>, ideas, tips and resources for environmentally responsible choices; and webcast meetings of certain environmental boards and councils

**Brochures and Publications** - DEC's publication production section worked closely with other agency programs to create several hundred publications and displays on topics including the new marine fishing regulations, archery in schools, and new brochures for the environmental education centers. Several sportsman education materials were updated, including student handbooks and firearms safety posters.

**Public Outreach** - During 2008-2009, public outreach staff organized and facilitated public meetings on proposed DEC actions, including statewide permit hearings on Marcellus Shale gas drilling, remediation at Long Island manufactured gas plants, and unit management plans in the Adirondacks and Catskills. Regional citizen participation specialists responded to public and media inquires about nuisance wildlife management, seasonal fishing limits, and moratoriums on fluke and other marine species. Regional outreach staff conducted public outreach for the oak wilt eradication effort in the town of Glenville, including planning a meeting and serving as a point of

contact for the media. Public outreach staff also convened public meetings on New York's Open Space Plan.

Staff assisted with writing a wastewater infrastructure needs report and implementing the carbon capture and sequestration project and the "Don't Flush Your Drugs" campaign. Public outreach staff began the new Watchable Wildlife campaign which includes a new website, with a new publication and outdoor wildlife appreciation events planned for 2010. Outreach staff coordinated DEC's presence at the State Fair, which includes the popular aquarium exhibit, fishing and hunting license sales, "green home" display, and Log Cabin exhibit.

**Environmental Education** - DEC's four environmental education centers offer programs for the public, youth and educators, serving more than 285,000 visitors in 2008. The centers also offer naturalist training internships.

DEC hosts six AmeriCorps Program members who conduct education programs, greatly expanding services for the public at Stony Kill, Five Rivers and in New York City.

More than 4,300 teachers attended Project WILD (wildlife) and Project WET (water) workshops. Project WILD is funded through the Conservation Fund. Regional environmental educators in Long Island City and Stony Brook reached more than 38,000 people in Regions 1 and 2 with teacher workshops, in-school programs and displays. Each summer, DEC's education centers hold week-long teacher institutes introducing environmental education activities that address NYS Learning Standards.

DEC's four Environmental Education Camps had record attendance in 2008. More than 1,540 children (ages 12-17) learned about nature, conservation and ecology. About 30 percent of the 12- to 14-year old campers participated in hunter safety training. Shooting sports and bowhunter education are offered to appropriately aged campers.

Almost 300 youth, who would otherwise not have the opportunity, participated in the Diversity Campership Program in 2008, thanks to a grant from the Hudson River Foundation and in partnership with the NYC Department of Parks and Recreation's Urban Park Rangers. The program provides a week at DEC camp, including transportation and pre- and post-camp activities such as hiking and fishing.

The After School Conservation Club for elementary school students conducted 10-week programs (4 hours a week) at 20 New York City sites, reaching more than 440 inner-city children.

**Conservationist Magazine** - *Conservationist* magazine is a New York State-focused publication that serves to connect New Yorkers to nature and features articles on outdoor recreation, natural resource management, and environmental issues. In 2008-9, topics included gun dog breeds, a natural history of the mallard, DEC's K-9 unit, memories of trout fishing in the Taconics and Catskills, modern-day fishing for trout and salmon in Lake Ontario, and a discussion of winter deer feeding. A new feature, "Ask the Biologist," answers questions about nature. *Conservationist* also continued to provide a public service through its "Letters" section, encouraging responses from program staff to interested correspondents and readers.

**Land Acquisition** - During the past decade, the state has announced the conservation of more than 1 million acres of land, and the overwhelming majority is open to hunting, fishing, hiking, birdwatching, camping and other outdoor recreational activities. The main highlights of the previous year's projects

are the 25,608-acre Sable Highlands fee title addition to the Adirondack Preserve, and 84,000-acre Sable Highlands conservation easement (both 4th quarter 2008), and a 237.5-acre addition to the Braddock Bay Wildlife Management Area (1st quarter 2009) – a very popular spot for duck hunting. Detailed quarterly lists of acquired lands, conservation easements and public fishing rights can be found on the DEC website <http://www.dec.ny.gov/lands/5069.html>.

**Snowmobile Guidelines** - The Department and Adirondack Park Agency have been working together to develop guidelines for the Siting, Construction and Maintenance of Snowmobile Trails on Forest Preserve Lands in the Adirondack Park. These guidelines will reflect the goals approved in the 2006 Snowmobile Plan for the Adirondacks/FGEIS to reconfigure the Adirondack snowmobile trail systems to create trail connections between communities in the Park and establish trail management practices for Forest Preserve lands.

**Bog River Complex Unit Management Plan** - An amendment to the Bog River Complex unit management plan was approved by Commissioner Grannis. This amendment revises the timeline for phase-out of commercial float plane access in the 2008 Bog River complex unit management plan. The Unit Management Plan for the Bog River Flow Complex called for the end of floatplane access to Lows Lake by 2008. The amendment extends floatplane access until December 31, 2012. Lows Lake is a popular destination for fishermen and hunters.

**Mountain Biking** - The New York State Department of Environmental Conservation (DEC) and its partners celebrated the opening of the Flume Trail System, the first on Adirondack Forest Preserve lands for mountain biking. The Flume Trail System includes approximately eight miles of trails for four-season recreational activities, including mountain biking, hiking, cross-country skiing and snowshoeing. The trails meet the specifications of the International Mountain Bicycling Association and are rated as easy, moderate and hard. The system includes a trail along the West Branch of the Ausable River and a trail to Flume Knob for hiking only. Most of the trails lie within the Wilmington Wild Forest unit of the forest preserve. However, approximately two miles of trail are located on the Whiteface Mountain Ski Area, which the Olympic Regional Development Authority operates.

The Department revised the Windham High Peak Wild Forest unit management plan (UMP) to accommodate increased interest in mountain biking. Since the adoption of the 1994 Windham High Peak UMP, the popularity of mountain biking has increased, as has the interest in developing mountain bike trails in the Catskill Forest Preserve. While the UMP identified a 1.9 mile length of trail suitable for designation as a bicycle route, the plan went on to state that this stretch of trail is too short to act as a stand-alone bicycle trail, and that the designation should be done as part of a larger network of bicycle trails. A proposal to develop such a system of trails was received in early 2006 from local mountain bike enthusiasts. A decision was made to revise the Windham High Peak Wild Forest UMP after evaluating the proposal and its compatibility with the guidance for developing facilities in Wild Forest areas. In addition to mountain bike trail development, this amendment also makes recommendations to address other issues raised at the public information meeting including the need for multi-use trails and additional parking at the Peck Road parking area.

**ECOs Conduct Sportsmen Outreach** – In 2008, DLE staff participated in nearly 2,000 outreach events, including organized sportsmen meetings, sportsmen training classes, state and county fairs, and working with civic and youth organizations. Additionally, DLE continues to conduct EAGLES

Program classes in schools statewide, supported by financial backing from Shikar-Safari International.

**Recreational Opportunities Provided** - The Belleayre Mountain Ski Center had a solid year, hosting over 155,000 skiers during the 08-09 season. The Bureau of Recreation's 52 campgrounds and 7 day use areas were enjoyed by over 1,500,000 visitors during the summer of 2008. This number is down from the previous year by approximately 200,000 visitors. The 2009 season appears to be slightly ahead of 2008 in attendance.



**Catskill and Five Rivers Interpretive Center Projects Advanced** - Proposals for design and engineering services for both centers were reviewed, and consultant teams were selected in June 2008. The design work is proceeding.

**Department Facilities Enhanced** - The restoration of the historic Crown Point Pier and Crown Point Lighthouse were both completed providing fishing and viewing access to Lake Champlain. Roads were paved at Buck Pond, Hearthstone and Woodland Valley campgrounds and the Hinckley Reservoir Day Use Area.



Construction of the Indian Lake Campground Boat Launch Site (BLS) is now complete. Regulatory approval is anticipated for the City of Plattsburgh BLS and the Hudson River at Moreau BLS. Contracts are in the award process for boat launch sites at the Raquette River (Crusher) BLS and Mattituck Creek BLS. Design is complete for the Chittning Pond Fishing Pier and Balsam Pond BLS, and construction will proceed pending funding availability. Design drawings have been completed for the Towns of Lewiston and Wilson BLS.



At Belleayre Mountain, work has been completed on the new Maintenance Center Building. Work is being completed on the Adaptive Snowsports Building which will house special equipment to take snow sports to the next level of accessibility. The Draft Environmental Impact Statement/Unit Management Plan is being completed for the expansion of Belleayre Ski Center in conjunction with the Crossroads Venture Development.

Construction of shower buildings is complete at the new Scaroon Manor and at Meacham Lake. The Rollins Pond electrical system replacement has been completed. Installation of new sewage lift stations has been completed at Golden Beach and Moffitt Beach. Design work for additional sewage work has been completed at both campgrounds. New water system controls have been installed at Wilson Park and Woodland Valley. Construction of a new shower building is underway at Little Sand Point with completion in late spring 2010. Designs have been completed for a caretakers cabin and garage at Scaroon Manor. Regulatory approval is anticipated to proceed with a shoreline stabilization project in Fish Creek for construction in fall 2010. All projects done by the division incorporate design elements to be accessible.



Scaroon Manor Comfort Station & Shower Building

**Environmental Education** - A cooperative agreement is being developed with the Office of Parks Recreation and Historic Preservation to establish Camp Berle within the Harriman State Park. Design work and preliminary site preparations are proceeding to open this new environmental education facility. Design work was completed for improvements to the DEC exhibit at the State Fairgrounds.

**Rerouting of Northville-Lake Placid Trail Completed** - A rerouting of the Northville-Lake Placid Trail that moved the trail from Cedar River Road into the interior of the Blue Ridge Wilderness has been completed. The Adirondack Mountain Club (ADK) professional trail crew performed the work under a contract with DEC. After two years of construction by the ADK, the original 132-mile Northville-Lake Placid Trail opened 85 years ago. It initially followed the Cedar River Road for 6.6 miles between Wakely Dam and the former McCane's Resort in the Town of Indian Lake, Hamilton County. The new trail section, eliminating all but 0.7 mile of roadway hiking, passes through magnificent old growth forest, with impressive specimens of sugar maple, yellow birch, hemlock and red spruce.

### ***Promote a Toxic-Free Future***

*DEC's specific regulatory functions fall within its larger mission of protecting human health and the environment. Fulfilling that broad mandate means promoting safer, greener ways of doing business and living our lives. The key to reducing waste and creating a toxic-free future rests on reducing or eliminating the use of toxic chemicals and reducing energy, water and other resources throughout a product's life cycle. Accomplishing this involves both pollution prevention—addressing toxics and waste at their source by choosing alternative practices, redesigning products and adopting new manufacturing processes—and maximizing materials recovery through product stewardship, remanufacturing and recycling. Government has a pivotal role to play in every aspect of this transformative approach. It can invest in green chemistry and green technology, practice green purchasing, mandate safer technologies and products, provide technical assistance and influence consumer choice through education and outreach.*

*Prevention, however, is an evolving goal. Toxic chemicals are still a part of commerce, and unnecessary waste remains a challenge. Because of this, vigilant “end-of-the-pipe” controls and waste management will continue to play a fundamental role in DEC’s mission—protecting human health and the environment and ensuring a level playing field for green alternatives. DEC has a long and effective history of addressing pollution in all media—air, water, soil and sediment—and these flagship programs will remain central to our mission even as we move toward a new vision of the future.*

**Teal Marsh to be Protected by PCB Cleanup Action** - Cleanup of sediments contaminated with polychlorinated biphenyls (PCBs) has been completed on the Alcan Sheet and Plate site in the Town of Scriba, Oswego County. The cleanup action included sediment remediation of a half-acre pond/marsh complex adjacent to the Alcan plant as well as 1.5 miles of Tributary 63, a primary source of flow into Teal Marsh. The PCB sediment concentration was as high as 161 parts per million, four orders of magnitude higher than what is considered safe for the protection of fish and wildlife. Teal Marsh is an undisturbed, picturesque, 285-acre marsh along the shores of Lake Ontario with scrub-shrub and forested wetland and open water marsh that is hydrologically connected to the lake. The marsh is populated with a variety of fish species including redbfin pickerel, several bass species, and catfish. It is a nesting area for least bittern and pied-billed grebe, a New York State threatened species. The remediation effort has removed the contaminated sediments from the stream, and habitat restoration work has been completed to restore a healthy ecosystem for the resident fish and wildlife. A long-term monitoring plan to test the effectiveness of the cleanup in achieving that goal will be implemented.



**Aquatic Toxicant Research Unit Continues Study on Mercury Contamination in Fish** - Staff at the Aquatic Toxicant Research Unit (ATRU) have completed the first year of sample collection for a project titled: “Mercury and Selenium in Fish in Important Recreational Waters of New York State.” This project is funded by NYSERDA (New York Energy Research and Development Authority) and builds upon the recently completed monitoring of mercury contamination in fish which was also funded by NYSERDA during 2003 - 2007. Important findings of that four-year study have been published in “Strategic Monitoring of Mercury in New York State Fish.” Data on mercury in fish from this study were used by the NYS Department of Health to update fish consumption advisories on numerous New York State waters. As part of the 2008 work on mercury and selenium, fish have been collected and prepared for analysis from 23 state park lakes, the first such effort for these waters. The final project report is available at [http://www.nyserda.org/programs/Environment/EMEP/project/7612/7612\\_pwp.asp](http://www.nyserda.org/programs/Environment/EMEP/project/7612/7612_pwp.asp).

**DLE Protects Environmental Quality** - While continuing its traditional dedication to fish and game enforcement issues, the Division of Law Enforcement has been focused on the environmental protection issues that potentially affect all living organisms in the state. In 2008, DLE members initiated over 4,200 prosecutions for violations of stream protection laws, freshwater and tidal wetlands laws, mining laws, pesticide laws, and solid and hazardous waste laws. In addition,

hundreds of checks of uncertified shellfish growing beds are performed each year by ECOs to keep possible pollutants out of the human food supply.

### ***Safeguard New York's Unique Natural Assets***

*Conserving and protecting unique natural assets is at the core of DEC's mission. New York's exceptional natural resources include the coasts of Long Island, the Hudson River, the Adirondack and Catskill forest preserves, the Finger Lakes and Great Lakes, the Tug Hill Plateau and the Niagara River Escarpment. Our natural assets encompass the watersheds that provide abundant and clean water supplies, the wetlands that provide habitat and prevent flooding and the natural heritage and beauty that attracts tourists and enhances our quality of life. New York State has a long history of protecting these valuable natural assets. The department is directly responsible for more than four million acres of land and is charged with ensuring the sound stewardship of more than 15 million acres of privately owned forest lands. New York's quality of life stems in part from the quality of its water, which is maintained by healthy coasts, watersheds, wetlands, marine ecosystems and infrastructure, including flood control and wastewater-treatment infrastructure.*

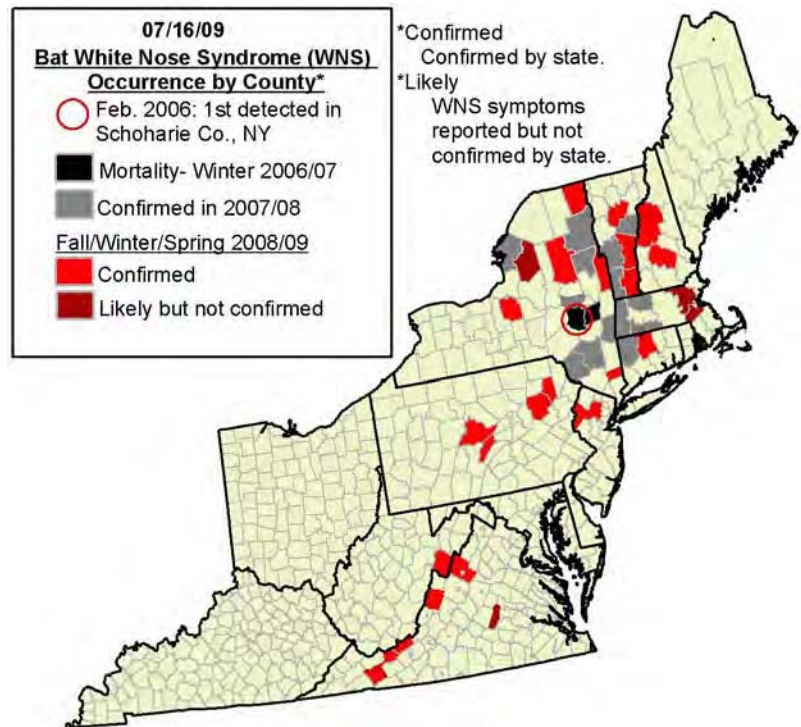
*Under this priority, DEC will strive to conserve and restore watersheds; apply state-of-the-art management techniques, including ecosystem-based management; ensure sufficient water-management infrastructure; promote sound land use and planning; add unique and valuable ecosystems to the forest preserves, and protect endangered species, biodiversity and unique ecosystems.*

**American Marten Research Update** - During 2008-2009, we continued our research efforts to better understand marten ecology and harvest management in the Adirondacks. Specifically, our objectives include estimating marten home ranges, determining habitat selection, and investigating dynamics of their small mammal prey. Our field work consisted of live-trapping animals in our southern High Peaks study area, replacing old radio collars, and equipping new martens with collars. We had another successful field season which resulted in a sample of 22 collared martens. We collected location data from these radio-collared animals to determine home ranges and conducted snow-tracking to determine fine-scale habitat selection within home ranges and how martens respond to fluctuating prey abundance. Additionally, we continued our research investigating linkages among cycles in American beech nut production, small mammal populations, and harvest vulnerability of martens and fishers. We recently completed a draft manuscript reporting on results of this research, which will be submitted to the Journal of Wildlife Management. Our marten research is providing DEC with valuable information that will be useful for harvest management and conservation planning.



**White Nose Syndrome Work Continues** – Department staff continue to be at the forefront of efforts to develop a response to White Nose Syndrome (WNS), an unknown disease that is causing widespread mortality among cave-hibernating bats. Since it was first discovered in Albany County in 2006, it has resulted in a more than 90% loss of individual bats at sites it has impacted. The species hit hardest are the *Myotis* spp. (little brown, small-footed, Indiana) and the tri-colored bat (also known as the eastern pipistrelle - *Perimyotis subflavus*). It has also spread throughout the northeast and, as of July 2009, has been confirmed at sites all along the Appalachian Ridge from New Hampshire down into Virginia.

Department staff participated as members of expert panels in several forums convened to address WNS issues. At these forums, staff have helped evaluate the status of the disease, determine priority research needs, and assess what management efforts are necessary to limit the spread of WNS and treat affected areas. The Department joined a multi-state effort to address the spread of WNS that was successful in obtaining over \$700K in federal funds through the Competitive State Wildlife Grants program. The Department will get \$80K in funding to help develop the infrastructure necessary to provide bats to the various research efforts that will be exploring the cause and potential treatments for the syndrome.



Staff throughout the Department have assisted in the monitoring effort to track the spread of the disease and evaluate the impact of WNS on populations of cave-hibernating bats. Surveys of hibernation location (hibernacula) are one of the best tools available for tracking the population status of New York's cave- and mine-dependent bat species. In addition to hibernacula survey, the Department initiated a State Wildlife Grant-funded project to assess the general status of bat species present in New York for those bat species that are not addressed well by winter hibernation surveys. The Department will continue to participate in collaborative efforts to address WNS issues and work to protect and restore surviving populations of bats.

**Chronic Wasting Disease Targeted Sampling Completed in Oneida/Madison Containment Area** - Wildlife staff, with the assistance of the Division of Law Enforcement and USDA Wildlife Services, completed a targeted winter sample of deer in the Oneida-Madison Containment Area during March 2009. The study location included two circles, each with a two-mile radius around the initial 2005 CWD cases found at a deer farm in Westmoreland and in two wild deer in the town of Verona. Thirty-

five deer submitted for testing during the 2008 big game season were determined to have been harvested in the area of interest and were also included in the sample. An additional 49 deer were collected by staff during the March effort, meeting the minimum desired sample of 40-50 from each location (40 Westmoreland, 44 Verona). Test results are complete and did not detect presence of CWD in any of these deer. While 6,497 deer from the larger Containment Area have been tested since 2005, current best science suggests targeted sampling at (or very near) a known occurrence may locate infected animals more effectively than random sampling over a larger area.

As part of its ongoing CWD monitoring program, DEC continues to conduct CWD surveillance in free-ranging white-tailed deer populations largely through samples collected from hunter-harvested deer supplemented by collection and testing of deer exhibiting clinical symptoms. A few moose collected incidentally through vehicle collisions and other mortalities are also tested. Statewide, including the containment area, 29,216 deer were sampled through March 31, 2009. CWD sampling is stratified by county and is proportional to deer density. Sampling time frames are based on the state fiscal year (SFY; April 1 - March 31). There have been no CWD-positive detections made in the Containment Area or elsewhere in the state since the two wild white-tailed deer tested positive for CWD in April 2005.

DEC remains committed to a five-year surveillance program to include mandatory hunter submission of deer taken in the Containment Area through the 2009 big game season. Information obtained over this season and developed through the targeted sampling effort will better inform managers on decisions to be made concerning possible Containment Area regulation changes and future CWD management in New York State.

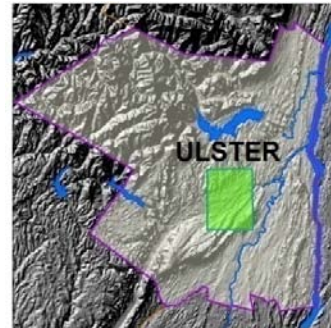
**Sunken Meadow Creek Tidal Wetland Restoration** - As part of the Long Island Sound Study Stewardship Initiative, the Nissequogue River Action Plan was developed and will serve as an example to the rest of the New York Stewardship areas. One of the 109 action items detailed in the Nissequogue River Action Plan was to restore tidal flow to Sunken Meadow Creek, located

within Sunken Meadow State Park. In the 1950s, Sunken Meadow Creek was cut off from tidal flow by a dike fitted with two 36-inch culverts. These culverts are insufficient and set too high to allow adequate tidal flow to the now-impounded wetlands, only allowing tidal exchange during the upper reach of the high tide, behind the dike is over 100 acres of vegetated wetlands, mudflats and open water that have been cut off from tidal flushing. Since the dike was put in place, much of the vegetation has shifted to *Phragmites australis*. With funding from the EPA, NOAA, USFWS and New York State Office of Parks Recreation and Historic Preservation, engineering and design plans to restore tidal flow to the system will be complete by spring 2010. Pre-monitoring of the potential restoration site began in August 2008 with a vegetative survey and fisheries surveys performed by DEC Marine Resources, DEC Freshwater fisheries, and State Parks staff have been ongoing. As part of the data collection effort, Marine Resources, State



Parks and NYS Sea Grant staff partnered with a local high school to get additional information and public involvement on the current state of the system; the AP Environmental Science class at Hauppauge High School assists with fisheries collections, water quality measurements and macroinvertebrate sampling during the school year. The Nature Conservancy is also assisting with the efforts, having donated use of their dataloggers to determine the level of tidal flow into the system and will be helping with pre-restoration plant transects and vegetation sampling.

**Additional Wetlands to be Protected** - Nearly 5,000 acres of freshwater wetlands have been identified for mapping in Orange and Ulster counties as part of the EPA Wallkill Watershed Wetland Mapping Grant. These identified wetlands are the results of digitizing over 20 years worth of field delineations and site inspections in DEC Region 3. Regional Bureau of Habitat staff are working with the Habitat Inventory Unit to complete preliminary remote sensing datasets for future field confirmation. This will result in thousands of additional acres of wetland resources to be protected under Article 24 regulations. In June 2009, a map amendment was completed to combine two Ulster County mapped wetlands and upgrade the classification of the resulting wetland to Class 1, the highest class. This wetland is located on the Mohonk Lake Quadrangle. This remapping effort results in the addition of approximately 112 acres of previously unmapped wetland to the Wetland Maps. Wetland amendments are also underway in Chenango, Erie, Monroe, Saratoga, and Seneca counties.



**Lake Erie Lake Trout Restoration** - Standard survey netting found the abundance of lake trout in Lake Erie has been gradually increasing since 2000 and has now exceeded the higher levels found in the 1990s. Over 95% of the current population is comprised of young fish between two and five years old. A recently stocked Klondike strain of lake trout continues to show promise by demonstrating excellent juvenile survival rates. Improved lake trout abundance has also been accompanying more aggressive treatments for sea lamprey, which are expected to reduce sea lamprey wounding rates on lake trout to below target levels by 2010, furthering prospects for lake trout rehabilitation.

Lake Champlain Sea Lamprey Control - Improvements in the Lake Champlain Sea Lamprey Control Program led to substantial decreases in sea lamprey attack rates. For nearly a decade, since the Lake Champlain experimental Sea Lamprey Control Program ended, sea lamprey attack rates on lake trout and landlocked Atlantic salmon have been exceedingly high. In 2008, lamprey attack rates decreased to 31 wounds per 100 lake trout and 35 wounds per 100 salmon - levels similar to those achieved during the eight-year experimental program. Although the rates are still higher than our objectives of 25 and 15 wounds per 100 for lake trout and salmon, respectively, the results indicate that our actions to restore the salmonid fishery are working. The 2008 results are most likely due to intensified treatment efforts in 2007. In addition to the regular, four-



year rotation of treatments on certain lamprey producing areas, treatments during 2007 included the Poultney River and a spring treatment on the South Fork of the Ausable River.

**Fall-Winter Survival of Ruffed Grouse in Different Landscapes of New York State** - In fall 2007, DEC initiated a cooperative research project with SUNY Environmental Science & Forestry to determine fall-winter survival and mortality of ruffed grouse in two areas of New York State with relatively high hunting pressure and different degrees of habitat fragmentation. This study will provide the first assessment of ruffed grouse survival and harvest mortality in New York in more than 50 years and is needed to evaluate and set appropriate hunting regulations for this species in regions of the state with different landscape characteristics.



A Master's Thesis detailing the results of this project will be completed in fall 2009 and a summary will be included in next year's NYSCC Annual Report. A summary of preliminary findings through summer 2009 include:

This study was conducted at two locations: Fort Drum Military Installation, Jefferson County, and Partridge Run Wildlife Management Area, Albany County. These areas were chosen for their above-average grouse populations, and because they varied in their habitat composition and configuration.

During fall 2007, 84 grouse were captured, 75 of which were radio-collared and included in the study. During fall 2008, 126 grouse were captured, 94 of which were included in the study. Capture rate was highly variable between years and study areas. Capture rates tended to be higher than for grouse research conducted in other locations (e.g., Appalachian Grouse Research Project). The number of grouse captured correlated with weather, including March and April temperatures and precipitation, and May precipitation. This supports work elsewhere associating successful production with spring/summer weather.

Predation, mainly by raptors, was the leading cause of death through the hunting season (September through February) accounting for 33 mortalities in 2007-08 and 44 mortalities in 2008-09. Seven birds were taken by hunters during 2007-08 and three were harvested in 2008-09. Harvest was responsible for between 0-22% of the mortalities within study areas and years and showed different temporal distributions between study areas.

Monthly mortality rate was variable between years and study areas. Monthly mortality rate in winter was associated with the number of days per month with >8 inches snow depth, particularly at Fort Drum. This suggests that the availability of roosting snow may contribute to grouse monthly survival at Fort Drum, but not necessarily at Partridge Run.

There were no variables that were reliable predictors of whether or not a grouse succumbed to predation, but female grouse were slightly less vulnerable to predation than males. Preliminary results indicate that a greater proportion of females and adults were harvested than existed overall in our radio-marked sample. These findings are not typical of grouse studies elsewhere.

The greatest difference between study areas in terms of land cover composition and configuration is the higher proportion of mixed forest at Partridge Run WMA. Preliminary results indicate that areas with high amounts of forest and a high number of land cover patch types were more characteristic of mortality locations than random locations; these variables, however, may reflect grouse preference for inclusion of these types of areas in their home range. At Partridge Run, evergreen forest also typified mortality locations, but this relationship was not significant. At Fort Drum, we found a greater proportion of mortality locations to be in mature (sawtimber) forest patches than random locations, and a greater proportion of random locations to be in young (seedling/sapling) forest; this supports the idea that grouse are more vulnerable to predation in older forests.

**Peconic Estuary Program Successfully Controls Invasive Ludwigia Plant** - 2009 marked the 4th successful year of the Peconic Estuary Program's Ludwigia monitoring and management program. Ludwigia peploides, more commonly known as water primrose, is a South American species that was first detected in the Peconic River in 2003. This aquatic non-native plant grows primarily on the water's surface, spreads rapidly in warm weather months and can often take over entire slow-flowing waterbodies. Ludwigia poses a major threat because it is unsuitable fish habitat, out-competes native plants, reduces biodiversity, blocks sunlight to oxygen-producing submerged plants, and severely impedes recreational uses of the river. Since the launching of control efforts in 2006, the Peconic Estuary Program (PEP) has held 13 removal events at which 438 volunteers spent 2,360 hours removing a total of 130 cubic yards of Ludwigia from the Peconic River. While the majority of removal occurred in the first few years, a mere four cubic yards had been removed during the 2009 maintenance season, proving that the PEP has been able to sustain and maintain an impressive reduction in biomass.

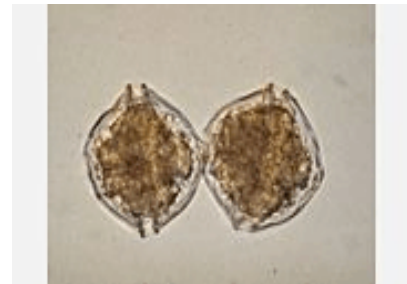


This year, the PEP also worked closely with the NYSDEC to install several educational interpretive signs at Peconic River access sites to educate fishermen, boaters and the general public about the Ludwigia eradication effort, the threat this invasive species poses, and the importance of maintaining the project's success.

Population status and foraging ecology of eastern coyotes in New York State - The DEC has funded (with federal Pittman-Robertson dollars) a statewide, comprehensive study of coyotes in New York, especially their effects on deer. The study is being conducted by the State University of New York College of Environmental Science and Forestry (SUNY ESF) under the leadership of Dr. Jacqueline Frair and graduate students Christina Boser and Robin Holevinski (a previous DEC wildlife biologist). Eastern coyotes have expanded their range throughout most of New York in recent decades, but the size of the coyote population and the impacts on white-tailed deer and other prey species remain unknown. The objectives of this research are to 1) assess kill rates of adult and fawn white-tailed deer, 2) produce a broad-scale estimate of coyote abundance and 3) quantify seasonal diets,

movements, and habitat use of coyotes. Between April 2007 and June 2009, 50 coyotes were captured and fitted with radio collars (n = 30) or GPS collars (n = 20) in 400 km<sup>2</sup> study areas in Steuben and Otsego Counties. In late-winter and spring 2008 and 2009, field crews searched known coyote locations obtained from GPS collars to locate potential kill sites of adult and fawn white-tailed deer. Preliminary results indicate that 55% of adult deer carcasses visited by coyotes were scavenged. Only 7% of the carcasses were determined to have been killed by coyotes. The cause of death of 38% of carcasses was undetermined. All adult deer killed by coyotes had previous injuries, making them more vulnerable to coyote predation in late-winter and early-spring. The results of coyote predation on fawns are pending following the conclusion of the field season in July 2009. Coyote fecal samples (n=400) collected throughout study areas are currently being analyzed for prey abundance in seasonal diets. DNA extracted from these samples will be used to identify individual coyotes for use in population estimates.

**Monitoring Shellfish for Marine Biotoxins** -The Bureau of Marine Resources (BMR) shellfish sanitation program implemented its fourth year of monitoring for the presence of marine biotoxins in shellfish. In 2006, after detecting the presence of the paralytic shellfish poison (PSP) saxitoxin in a routine shellfish sample taken from a local Long Island market, DEC implemented an annual marine biotoxin monitoring program. Saxitoxin is a natural biotoxin produced by *Alexandrium fundyense*, which is a phytoplankton that occurs normally in the marine waters of the northeastern U.S., often “blooming” to high concentrations under particular late-spring conditions that are not thoroughly understood.



Symptoms of PSP include tingling or numbness in the lips, tongue, face, and extremities. In the most severe cases, death can result from suffocation due to paralysis of the diaphragm, which causes a person to stop breathing. Each year, in order to protect public health, BMR deploys mussels at several locations around Long Island to detect the presence of this potentially harmful toxin before it reaches levels that could cause PSP in shellfish consumers. Of the various edible bivalve mollusks, blue mussels in particular can concentrate marine biotoxins to very high levels. DEC-BMR’s lab uses a rapid test kit that is sensitive to saxitoxin levels of 40 µg/100 grams or higher. The National Shellfish Sanitation Program’s (NSSP) standard for closure is 80 µg/100 grams.



Between early April and late June 2009, over 100 mesh bags containing blue mussels were deployed at 11 locations around Long Island. Six sites were set up in the Northport/Huntington Complex on the north shore of Long Island. Northport Harbor is where saxitoxin was first detected in shellfish in 2006 and where it reached dangerous levels (>1400 µg/100 grams) in 2008. For geographic distribution, the other five monitoring sites were in Fire Island Inlet, Port Jefferson Harbor, Mattituck Inlet, Shinnecock Canal and Flanders Bay. Monitoring detected saxitoxin in shellfish at several sites in Northport and Huntington in late April and DEC implemented closures encompassing more than 7000 acres to prevent the harvest and sale of contaminated shellfish. After the toxin was detected in

shellfish, BMR laboratory staff performed work at the SUNY Stony Brook hospital where they conducted bioassays on shellfish samples using the only test procedure that is recognized by the NSSP for quantifying biotoxin levels in shellfish and for determining when affected areas can be re-opened.

**Rare and Endangered Fish Management** - The Rare and Endangered Fish Unit has been enhanced to add planning and management oversight to the inventory work that has been ongoing for the last several years. This will allow the Bureau of Fisheries to take better advantage of federal State Wildlife Grant funding available for management and restoration projects. Several projects to restore and assess rare and endangered fish have been completed or are ongoing. An assessment of the status of American eel in inland waters has been completed and will form the basis of a management plan to be developed in cooperation with the Bureau of Marine Resources. A project to reintroduce gilt darters to the Allegheny drainage has begun with collection of mature adult brood stock from Pennsylvania. Populations of longear sunfish are being enhanced through pond propagation and stocking into their historic range, including the last known native population in Tonawanda Creek. Projects for lake sturgeon, paddlefish, and round whitefish continue with additional stocking and post-stocking population assessments.



**Preventing the Spread of Aquatic Invasive Species and Fish Diseases** - In an effort to provide boaters and anglers with guidance concerning cleaning, drying and disinfection procedures that they may use to reduce the likelihood of spreading invasive species, the Bureau of Fisheries completed a new publication "Anglers & Boaters: Stop The Spread of Aquatic Invasive Species and Fish Diseases in New York State." New web pages concerning aquatic invasive species and disinfection of boating and angling gear were also posted at [www.dec.ny.gov/pubs/212.html](http://www.dec.ny.gov/pubs/212.html). Invasive species disposal stations have also been installed at over 50 boat launches and fishing access sites to provide a dedicated location for disposal of materials removed from boating and fishing equipment. Kiosks were also installed at many of these sites for posting of invasive species and other information.



**Adverse Environmental Impacts to be Minimized at Astoria Generating Station**

- The Astoria Generating Station, located in Queens along the East River, kills millions of fish of all life stages each year through the operation of its cooling water intake system. The Department recently modified Astoria's State Pollution Discharge Elimination Permit to require the use of "Best Technology Available," or BTA, to minimize this adverse environmental impact. The modified SPDES permit requires the facility owner to install variable speed pumps to reduce the volume of cooling water used and replace the old debris screens with new fine mesh Ristroph-type intake screens to significantly increase the survival of fish impinged on the screens. This combination of technologies is expected to reduce the number of fish eggs and larvae entrained (and killed) through the station by 65 percent, and result in survival of 85



percent of impinged fish. The installation of these technologies is to be completed by the end of 2013.

**Gobbler Harvest Rates and Annual Survival Rates Study** - In January 2006, DEC began a 4-year wild turkey banding project designed to estimate harvest and survival rates of male wild turkeys (“gobblers”) in New York. This study is being done in cooperation with the Pennsylvania Game Commission, Ohio Department of Natural Resources, researchers from Pennsylvania State University, and the National Wild Turkey Federation.



Winter 2008-09 marked the final field season for capture and marking, and data on band returns will be collected through summer of 2009. DEC staff banded an additional 300 gobblers this winter, bringing the four-year total to 1,331 gobblers and 1,353 hens in 54 of the 55 counties in upstate New York (north of the Bronx-Westchester border). During the four-year study Pennsylvania Game Commission and Ohio Department of Natural Resources have banded 1,262 and 618 gobblers, respectively.

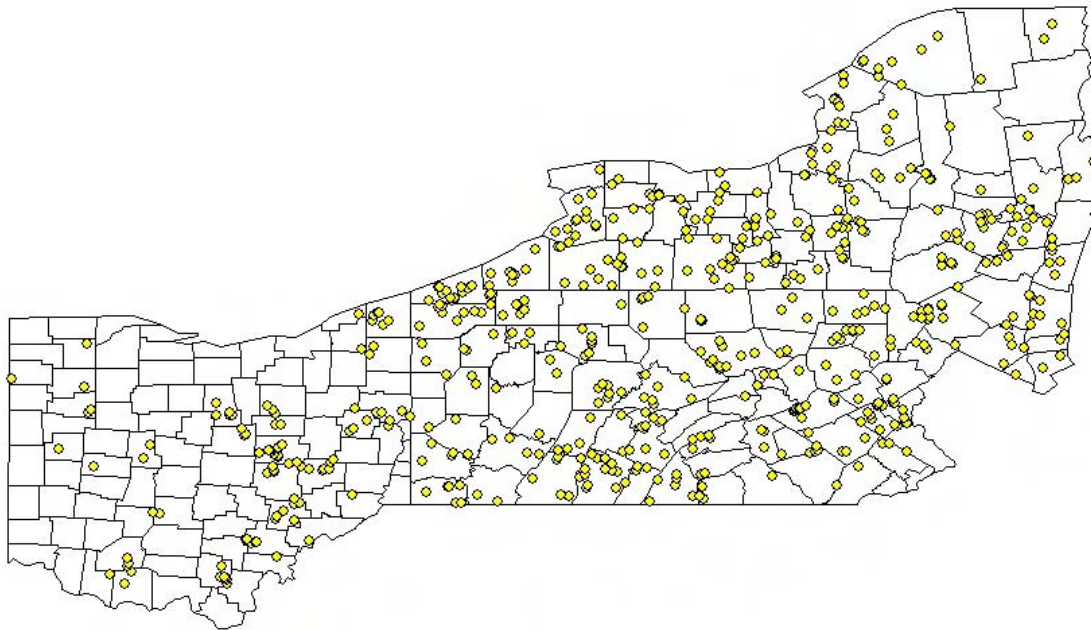


Figure 2 Wild turkey banding locations in Ohio, Pennsylvania, and New York, winters 2006-09. State agency staff banded a total of 3,211 gobblers in three states during the four-year study.

During the spring 2009 hunting season, we recovered bands from 142 gobblers including 61 banded in winter 2009, 58 banded in winter 2008, 16 banded in winter 2007, and seven banded in winter

2006. The 61 bands from winter 2009 (22 jakes, 39 toms) represent a return rate of about 20%. This is a slight increase from spring 2008 (18% return rate). The return rate for 2009-banded jakes was 14% and for 2009-banded toms was 28%. Four bands were recovered during the youth hunt. Dr. Duane Diefenbach from Penn State University will continue to analyze band-return data and will develop harvest and survival estimates for each state and for distinct landscapes within each state. Final results will be used to assess our current hunting season configurations to ensure the long-term welfare of the wild turkey resource in New York.

DEC thanks all of the volunteers and cooperating landowners for their invaluable assistance in the field. This project would not be possible without them.

**Delaware River Tailwaters & NYC Reservoir Releases** - A new management plan for the New York City Delaware Basin Reservoirs was implemented on October 1, 2007. The “Flexible Flow Management Program” (FFMP) is a major departure from previous plans, which involved minimum base flows supplemented by fixed “banks” of water that were used as needed to meet temperature and/or flow targets. The FFMP instead uses a schedule of fixed releases based on season and reservoir storage levels.

The FFMP performed somewhat as expected during the first full year. Water temperatures in the West Branch of the Delaware River to Hancock and in the upper sections of the East Branch of the Delaware River and Neversink River remained suitable for coldwater aquatic organisms throughout the summer. Summer water temperatures on the mainstem Delaware, however, rose to levels that were extremely stressful for trout a number of times during the course of the 2008 summer. The FFMP has performed much better during the summer of 2009, with its generally wet conditions. Reservoirs were at or close to full capacity the entire summer, and therefore releases were adequate to provide consistently excellent water temperatures at least as far downstream to Callicoon on the Mainstem Delaware.



A number of modifications were made to the FFMP during 2008 and 2009, most of which benefited the coldwater aquatic ecosystem. These include a temporary bank for thermal protection during the summer of 2008, and increased base releases during the summer of 2009 under normal reservoir storage conditions. Enhancements to the FFMP are ongoing and the DEC continues to cooperate with the other Decree Party members to improve releases for the coldwater ecosystem.

**Breeding Waterfowl Surveys** - BOW staff completed New York’s portion of the Atlantic Flyway Breeding Waterfowl Plot Survey during spring 2009. A total of 284 1.0-km<sup>2</sup> plots distributed across the state are included in this annual survey. All but four survey plots with reasonable potential for observing waterfowl were visited one time during mid-April through mid-May to record all waterfowl observed. Similar surveys are conducted in 11 northeastern states, and results are used to estimate annual breeding populations of mallards, black ducks, wood ducks, and Canada geese in the northern Atlantic Flyway. The estimates are considered by the Atlantic Flyway Council (AFC) and U.S.

Fish and Wildlife Service (USFWS) when recommending appropriate waterfowl hunting regulations for the flyway.

Results for New York State indicate that the mallard is by far our most common duck, with approximately 90,000 breeding pairs. The 2009 estimate for mallards was 6% below the long-term (1989-2008) average (Table 1). Breeding black ducks in New York are far less common than mallards, and annual estimates fluctuate a lot from year to year. The 2009 estimate for black ducks was the second lowest since surveys began, but no consistent long-term trend has been evident. Wood ducks are the second most common breeding duck in New York with approximately 40,000 breeding pairs. The 2009 wood duck population estimate was 8% above the long-term average (Table 1). Canada goose pairs and total birds both declined slightly from recent years, but remain far above where they were 20 years ago (Table 1).

Results for New York were combined with those from other Atlantic Flyway states (Table 2). Based on these and other population survey data for eastern North America, AFC and USFWS recommended continuation of liberal duck hunting regulations in 2009, including an increased bag limit for wood ducks (3/day) that was first allowed in 2008. Local-nesting or "resident" Canada goose numbers in New York and the flyway seem to have stabilized (Fig. 1 and 2), but this population remains far above desired levels. Expanded hunting seasons designed to increase harvests of resident Canada geese have probably helped to slow population growth, but harvest rates are still less than 10% (S. Sheaffer, Cornell University, unpubl. data) and the flyway population remains far above the goal of 650,000 birds.

This was the sixth year that state and flyway breeding population estimates were calculated for blue-winged and green-winged teal, and common and hooded mergansers. Average population estimates for these species indicate their relative abundance in general terms, but the estimates are quite variable and no trends are evident at this time.

This was the 21st consecutive year that BOW staff has completed the statewide breeding waterfowl survey. Staff from across the state have made an outstanding commitment to completing these surveys, with near 100% coverage every year. Continuation of these surveys is essential for sound management of waterfowl hunting opportunities in New York.

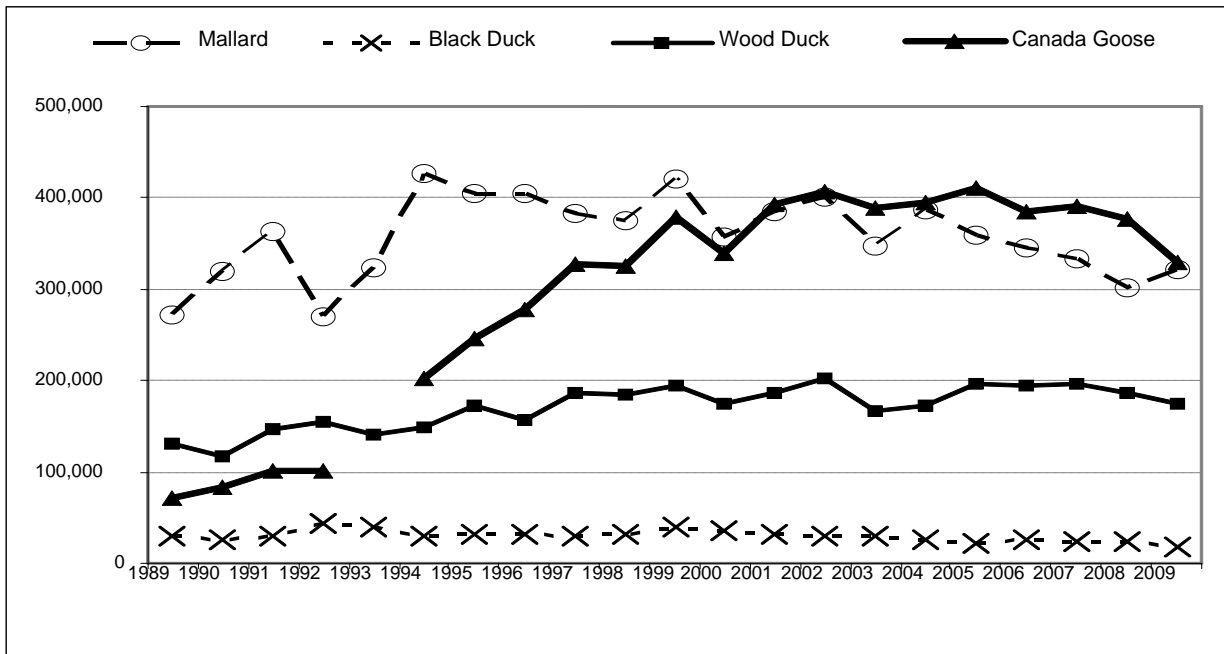


Figure 1 Trends in breeding pair estimates for selected waterfowl species in New York State, based on Atlantic Flyway Breeding Waterfowl Plot Survey, 1989-2009.

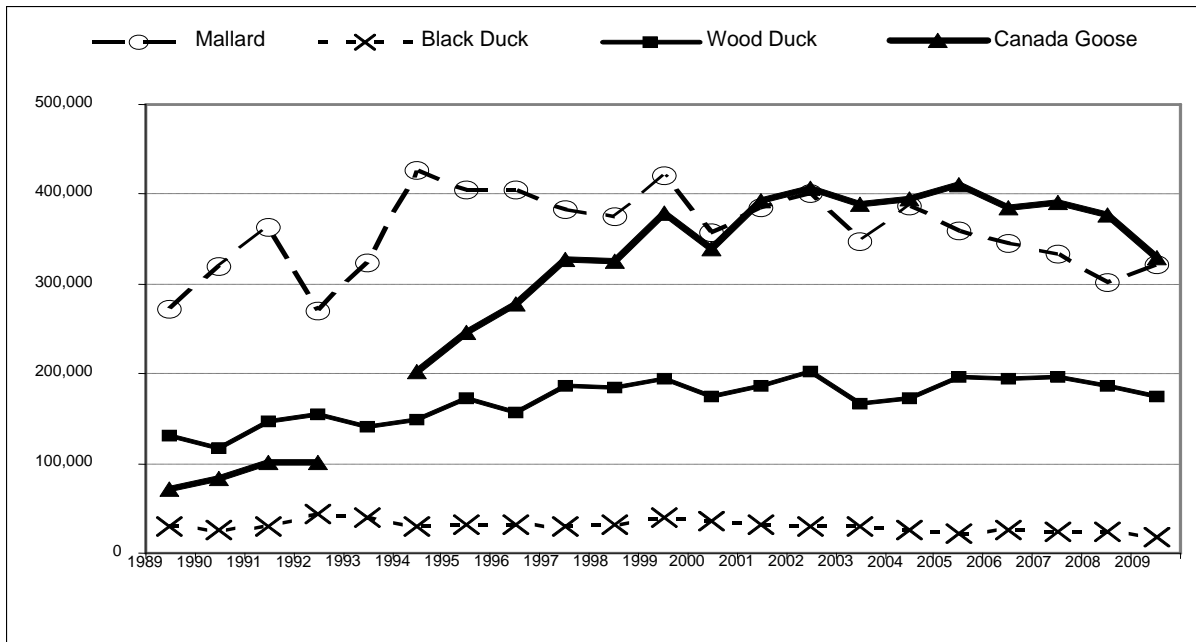


Figure 2 Trends in breeding pair estimates for selected waterfowl species in 11 northeastern states, based on the Atlantic Flyway Breeding Waterfowl Plot Survey, 1989-2009.

**Firewood Regulation** - The emergency regulation was instituted in June 2008 to reduce the risk of introduction and spread of invasive insects and diseases of trees by preventing untreated firewood from entering New York State and restricting the movement, sale and possession, within the State, of untreated firewood that originates in New York State was made permanent. Outreach efforts are continuing and expanding and the Department is working on increasing enforcement, addressing local firewood supply issues, and confiscation and disposal concerns.

**Emerald Ash Borer** - In mid-June of 2009, the Emerald Ash Borer (EAB) was discovered for the first time in NYS in the Town of Randolph, Cattaraugus County. A quarantine has been established within Cattaraugus and Chautauqua Counties to control the spread of this destructive insect that poses a serious threat to ash trees statewide. The coordinated response includes the coordination of DEC, Department of Agriculture and Markets, Cornell Cooperative Extension and USDA Animal and Plant Health Inspection Service (APHIS). 1,800 EAB traps were deployed and 39 ash trees with known infestations were removed. USDA APHIS is expected to issue a parallel Federal quarantine restricting interstate movement of ash and firewood in the near future.

**Giant Hogweed** - The Division of Lands and Forests continued eradication efforts of Giant Hogweed at some of the over 400 currently known sites. The sap from this plant combined with sunlight can cause burns on the skin.

**State Lands Natural Heritage Inventories** - The Natural Heritage Program has completed a detailed assessment of one million acres of State Forests, Reforestation Areas, Multiple Use Areas, Unique Areas, and Forest Preserve for rare animals, rare plants, and significant ecological communities. This five-year project included on the ground assessments, modeling to predict and identify new populations and the development of conservation guides for State Foresters that will help them manage and protect biodiversity resources on their properties. The project has also improved our understanding of New York's overall biodiversity, which will enhance informed conservation outside of state lands. We hope to secure funding to extend this assessment to remaining conservation easement and forest preserve acreage.

**Trail Supporter Patch** - The Division of Lands and Forests created and released the first Trail Supporter Patch in 2007. The proceeds from the sale of the patch, which costs \$5, are deposited in the Conservation Fund's Outdoor Recreation, Trail Maintenance, and Development Account, and will help maintain and enhance non-motorized trails throughout New York State. Since its release sales of the Trail Supporter Patch have raised \$6,140.

**State Forest Management Plan** - Within the next year the Department will be holding a series of public meetings to obtain input on the future management of the over 790,000 acres of State Forests, Unique Areas and Multiple Use Areas administered by the Division of Lands and Forests. This state-wide plan will serve as a foundation for all future State Forest Unit Management Plans. It will be crucial for all user groups to contribute their input in this process.

**State Lands Regulations** - The Department recently revised the "Use of State Lands" Regulations (link to 2359) (6 NYCRR Part 190 State Lands) to modernize state land management and to reduce inappropriate private uses of state lands so that state land resources are available to the public including the sportsmen and sportswomen community.

**Temporary Revocable Permit (TRP) Policy** - Revisions are being made to the Department's TRP Policy, for use of lands administered by the Divisions of Lands and Forests and Fish, Wildlife and Marine Resources. The changes will streamline the process by adding a new permit level for low impact activities. Unlike the existing Routine and Non-Routine permits, this new permit type will be free and will not require liability insurance coverage from the applicant. We expect the revisions to be completed prior to Spring of 2010.

**Catskill Park State Land Master Plan** - A new Catskill Park State Land Master Plan was completed and incorporates balanced recreational opportunities with enhanced environmental protection. The revised plan will guide the future management of the State's 292,000-acre holdings within the Catskill Forest Preserve. This revised Master Plan will assist DEC in continuing to manage the Catskill Forest Preserve in ways that are sensitive to public needs and protect the region's natural resources for the future. The Master Plan is for Forest Preserve and other lands administered by the Department of Environmental Conservation (DEC) within the Catskill Park, as well as Forest Preserve land outside the Park within Ulster, Greene, Delaware and Sullivan Counties. The Catskill Park State Land Master Plan (CPSLMP) establishes geographic management units, and classifies each unit based on the area's characteristics and level of public use.

**ECOs Safeguard New York's Natural Resources** - In 2008, ECOs issued nearly 18,000 tickets to poachers, polluters, illegal dumpers, and other interested in taking more than their fair share, or those for whom the profit margin is more important than the lasting destruction of the environment that sustains us all. Operating at nearly full strength with the graduation of the new recruit class, the Division was able to achieve these numbers, an increase of 3% over 2007, with over two hundred thousand fewer dollars spent on overtime.

**Reconstruct Dams** - Perch River WMA Dam modifications are complete to provide an adjustable outlet structure to be able to manage water levels. Reconstruction of two deficient dams at Little Pond Campground is completed. Construction is beginning to breach the deficient dam at Calico Pond in the Gee Brook State Forest. Clear Pond Fish Barrier Dam design is substantially complete. Preliminary design evaluations were completed for Duck Hole, Fiver Rivers, St Francis, Trout Pond and Big Pond Dams.



Little Pond Dam

The rehabilitation of McGregor Dam, Clinton County, continues with construction completion scheduled for October 2009.

**Invasive Species** - Job Order Contracting was utilized to respond quickly to remove seven trees infected with oak wilt disease that were discovered in Scotia, Schenectady County. An additional sixty-seven oak trees were removed to create a buffer to ensure the disease was contained.

All campgrounds are being inspected annually by staff for early detection of invasive terrestrial plants and then followed up by eradication. Information kiosks and invasive species drop boxes were constructed and installed this season at boat launch sites throughout the state. Staff participated in the drafting of a regulation to prevent the spread of invasive species caused by the transport of firewood. Campground staff have received awareness training and are distributing information to campers about the dangers of moving firewood.

**Fish Hatchery Improvements** -The permanent pump has been installed in the new well at Salmon River. The Rome Fish Hatchery Pond Cover to stop bird predation has been completed. Bids were received in August for a new Rearing Building at the Rome Fish Hatchery. Construction will begin this fall.



Rome Fish Hatchery Pond Cover

**Habitat Improvement** - Design work is progressing for the Tallapoosa and Turtle Cove wetland improvement projects within the Pelham Bay Park in NYC.

**Flood Control** - New control systems including remote monitoring capability has been added at the Kingston and Rosendale Flood Protection Projects.

### ***Work for Environmental Justice***

*Environmental Justice is the fair treatment 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. To achieve environmental justice, DEC must ensure that all communities enjoy the same degree of protection from environmental and public-health threats and equal access to the decision-making process. Fostering environmental justice in New York State involves a range of activities that both reduce environmental burdens and target benefits to under-served populations or areas struggling with disproportionate burdens.*

*In recognition of the importance of environmental justice, the department has an Office of Environmental Justice, as well as a Commissioner's Policy on Environmental Justice (EJ). The office recently added new staff (a chief advocate and a special counsel for community initiatives) and formed a department-wide network of professionals who will focus on a reinvigorated effort to integrate environmental justice principles into all department activities.*

**Grants Program** - Division of Operations staff reviewed EJ Community Impact Grant Program applications to award funding to community organizations to address environmental and human health impacts in their neighborhoods.

## ***Combat Climate Change***

*Human-induced climate change has been called the most pressing environmental issue of our time. Tackling this global problem requires new policies to reduce emissions and changes to the way we think, operate and fund environmental protection efforts. Climate change must be considered in our approach to natural-resource stewardship and efforts to ensure adequate environmental infrastructure for New York State's future. It requires new partnerships to share knowledge and develop effective policies to reduce greenhouse-gas emissions and adapt to unavoidable effects. In short, DEC needs to apply a climate-change lens to a full range of activities, such as planning, permitting, rule-making, grant-making, wildlife management, enforcement and public outreach and education. This priority involves initiatives to reduce greenhouse-gas emissions from important source categories; to encourage low-carbon design technologies; to elevate climate change awareness, research and adaptation ability; to foster carbon sequestration and sustainable forestry, and to lead other state agencies in our collective efforts to reduce emissions and adapt to changes in the climate.*

*There is ample evidence of our leadership in the climate-change arena. DEC is developing regulations for the nation's first power-plant carbon cap with an allowance auction; has adopted California's greenhouse-gas standards for new motor vehicles; has joined the Climate Registry; is a steering-committee member of the International Carbon Action Partnership; is active in the Governor's Renewable Energy Task Force, and has formed an interagency workgroup on carbon capture and sequestration. We also are exploring policies to incorporate greenhouse-gas assessments into environmental reviews and to address the various sources of significant greenhouse-gas emissions.*

**Workshop Examines Climate Change Effects on Fish, Wildlife and Natural Systems** - DEC's Division of Fish, Wildlife and Marine Resources and its conservation partners recently hosted a workshop entitled, Safeguarding New York's Wildlife and Natural Systems in a Changing Climate. The meeting was designed to provide a basic understanding of current climate change science and legislation, already occurring fish, wildlife and natural system adaptations, and how DEC can work collaboratively with its conservation partners in response to future adaptation needs.

More than 100 people attended the very successful workshop, held at DEC's Central Office in Albany. In addition, more than 100 participated via video-conference at 14 DEC regional offices throughout the state, and via a National Wildlife Federation webinar link. Several DEC divisions were represented, as well as several other state agencies, the Governor's Office, federal agencies, many



non-governmental organizations, and academia. The workshop was funded by a grant to the [National Wildlife Federation](#) from the Doris Duke Foundation.

Climate change is one of the most significant challenges facing natural resources management, and one of DEC's priorities as expressed by Commissioner Pete Grannis. Changes in climate will lead to potentially dramatic changes in environmental conditions, which will in turn cause changes in fish and wildlife populations and habitat. As a result, DEC and its conservation partners need to factor climate change adaptations by fish, wildlife and natural systems into resource management decisions.

As a result of the workshop, strong interest was expressed in building a coalition to develop and implement fish, wildlife and natural systems adaptation strategies for New York, as well as determining the focus of future adaptation workshops.

**Forests and the Environment** - The Division of Lands and Forests has created a series of web pages which describe the importance of trees and forests in our environment. Topics include Carbon Sequestration and Forests and How Plants Run the Carbon Cycle. Additional topics will be added to DEC's Forests and the Environment webpage <http://www.dec.ny.gov/lands/41769.html>.

**ECOs Fight Air Pollution** - Environmental Conservation Officers in 2008 renewed their emphasis on combating air pollution statewide, helping to reduce the emissions that add to global warming. While Fishing without a License continued to be the number one charge written, violations of the emissions standards that apply to heavy duty diesel vehicles rose to number two, for the second time in the last three years, with almost a thousand charges filed. The new technology that is developing to make these vehicles run cleaner is testimony that the emphasis put on this area of enforcement in this and other states is having the desired effect of increasing compliance.

**Establishment of the New York State Office of Climate Change** - This office was created to lead the development, in concert with other DEC programs and New York State agencies, of climate change-related programs and policies. The office aims to ensure that New York State develops the full suite of responses needed for significant emission reductions and for successful adaptation to changing temperatures, sea levels, precipitation and other climate factors. The office uses sound science, engineering and economic principles to design solutions that will help stabilize atmospheric greenhouse-gas concentrations at acceptable levels. It works to inform assist and empower state agencies, local governments, NGOs, institutions, businesses and individuals to reduce carbon emissions and adapt to unavoidable effects.

**Executive Order 24** - In July 2009, Governor Paterson issued this executive order to establish the goal of reducing statewide emissions of greenhouse gases by 80 percent of their 1990 levels by 2050. The order establishes a Climate Action Council and charges it with developing a draft climate action plan to achieve this goal by September 30, 2010. Office of Climate Change staff will provide support to the council.

**Wildlife Climate Change Alliance** - Office of Climate Change staff are participants in the newly formed Wildlife Climate Change Alliance, a coalition of state agency and non-governmental organizations formed to facilitate integration of climate change adaptation into natural-resource management. In July, the coalition sponsored the first of a planned series of workshops for DEC staff and others intended to build capacity for climate change adaptation planning.

**Regional Greenhouse Gas Initiative** - New York State's first mitigation program specifically focused on carbon dioxide (CO<sub>2</sub>, the principal greenhouse gas) is the Regional Greenhouse Gas Initiative (RGGI), a ten-state program under which power-sector CO<sub>2</sub> emissions are reduced through cap and trade with allowances purchased in an auction. The Office of Climate Change has been deeply involved in making this unprecedented program a reality--working on power plant CO<sub>2</sub> controls, reviewing applications for offsets, developing auctions for CO<sub>2</sub> allowances and assisting with the establishment of RGGI, Inc., a non-profit organization developed by the states to support RGGI programs. Quarterly CO<sub>2</sub>-allowance auctions have been held since September 2008. Investments of auction proceeds will advance the state's broad energy goal of moving toward a clean-energy economy by reducing GHG emissions in the near-term and positioning New York to further reduce GHG emissions over the long-term. While the majority of funds will be directed at cost-effective near-term reductions, at least 25 percent will address areas that require longer investment horizons. Funds will also be used to leverage additional GHG reductions by establishing the commitments and capacity to curtail GHGs in state, regional, municipal, and other government institutions. A number of initiatives that can help reduce the disproportionate cost burden and harmful environmental impacts on low-income families and environmental justice communities are also included in the portfolio of programs. This comprehensive strategy is designed to deliver near-term benefits to New York consumers while also guiding New York toward a clean energy economy and positioning the state to pursue the aggressive carbon reduction framework needed to ensure a stable climate.

**The Climate Registry** - The Office of Climate Change is promoting voluntary emissions reporting by New York State facilities through a national non-profit group, The Climate Registry. New York serves on the board of directors of The Climate Registry, which will provide accurate and consistent emissions inventory data to ensure that emissions reductions are equitably shared. DEC has committed to inventory and report its own emissions under The Climate Registry protocol. The Office of Climate Change is coordinating this inventory with assistance from the Division of Operations.

**Sea Level Rise Task Force** - Because New York is a coastal state, preparing for the rise in sea levels that is predicted to result from global warming is critical. The Office of Climate Change is providing scientific, public outreach and administrative support to the New York State Sea Level Rise Task Force, which is assessing effects on the state's coastlines from rising seas and recommending protective and adaptive measures. The task force has formed four work groups that are drafting recommendations and held a series of public information and comment meetings in early 2009. Public review of the task force's draft recommendations is scheduled for August and September 2010. The task force report is due to the NYS Legislature by January 1, 2011.

**Climate Smart Communities** - The Climate Smart Communities program encourages local governments to adopt a model pledge of climate protection that includes strategies for reducing GHG emissions and adapting to climate change. Information and resources for local climate action are provided through DEC, NYSERDA and ICLEI-Local Governments for Sustainability. More than 42 local governments have adopted the pledge since the program was announced in February 2009.

**Reduce Carbon Footprint** - The Division of Operations is taking action to reduce carbon and greenhouse gas emissions of our infrastructure. We are performing comprehensive energy audits of our facilities, and performing capital improvement projects to reduce both energy consumption and emissions.

## ***Foster Green and Healthy Communities***

*DEC's job is to foster the green and healthy communities that we need for New York State's future. Our remediation programs allow cities and towns to clean up and safely redevelop contaminated land—a key aspect of smart growth. Our Air Program works toward a future where every New Yorker breathes air that consistently meets health-based standards. We are partners with municipalities in efforts to enhance recycling and to reduce and safely manage waste, and our Minerals Program works to ensure that mining activities do not pose risks to people and communities. DEC programs to protect open space, promote urban forestry and preserve wetlands help communities maintain green spaces and streetscapes. Our Water Program helps prevent pollution of rivers and streams and reduces risks from flooding. And through our unique role in implementing the State Environmental Quality Review Act, DEC has a general responsibility to protect and enhance the human environment, including existing community or neighborhood character. Moreover, certain environmental goals—reducing non-point water pollution and reducing greenhouse-gas emissions—clearly require that New York grow smarter, using new models of community design and transportation efficiency. When DEC achieves success in these programs, we are more than meeting our obligations under the law--we are helping municipalities improve the quality of life. Under this priority, DEC will continue to build even better programs and work with cities and towns to help them create the green and healthy communities that make New York a great place to live.*

**Catskill Riparian Communities Inventoried** - The New York Natural Heritage Program, in partnership with New York City Department of Environmental Protection and the Greene County Soil and Water Conservation District, conducted natural community inventories and ecological quality rank assessments along the West Kill main stem in the Catskill Mountains, with the goal of classifying, mapping, and describing a set of reference riparian habitat types within the West Kill Watershed. A final report has been drafted and sent out for review among partners. Seventy-six plots and observation points were sampled across approximately 16 natural community types. The project is collecting data to provide detailed descriptions, quality ranking, species composition, and abiotic characteristics of frequently inventoried natural community types along the West Kill. For each natural community type, the plot assessed to be of the highest ecological quality will be used by partners as reference communities to guide stream corridor restoration projects within the watershed.



**ECOs Enforce Diesel Truck Emissions Standards** - The Division of Law Enforcement has committed to assisting the Department's Environmental Justice Coordinator in helping to create a healthier environment for New York's communities, especially those in economically challenged neighborhoods, many of which have suffered from having to endure the least environmentally healthy commercial activities in their areas. In 2008, much of the Division's air quality enforcement was done in coordinated, focused details in both downstate and upstate urban communities. This

included not only DLE members enforcing diesel truck emission standards but other DLE staff inspecting boilers, furnaces and other sources of pollution. Citizens in these communities, many of whom were not aware of the presence of Environmental Conservation Officers, have been very appreciative of these efforts.

### ***Fair and Effective Enforcement***

*Commissioner Grannis is committed to supporting the agency's enforcement efforts to ensure that violators do not benefit from noncompliance, and he also is committed to consistent enforcement across the state. These commitments will help meet DEC's ultimate goal of protecting New Yorkers and their environment. Recent multi-site consent orders covering publicly owned as well as privately owned facilities exemplify how DEC's enforcement efforts successfully translate those commitments to achieve our goal. Restructuring the Office of General Counsel, the Bureau of Environmental Crimes Investigation and the Marine Enforcement Unit has enabled DEC to better develop and implement its enforcement strategies. Creation of the new Office of Natural Resource Damages will allow for the recovery of stewardship resources from responsible parties.*

### ***Partnerships and the Public***

*Making wise decisions in the face of today's complex environmental problems—including climate change, biodiversity loss, sprawling development and toxic exposures—requires innovation, openness and integrated policy solutions. To achieve those solutions, DEC is committed to fully engage the public and work collaboratively with public and private partners, including other state agencies, local governments, the business community and non-profit organizations.*

**Wild Brook Trout and Partnerships** - In the summers of 2008 and 2009, DEC Fisheries staff with huge contributions from staff and volunteers from Allegany State Park, USFWS, Red House Brook and Western NY chapters of Trout Unlimited (TU) built log and rock structures at 16 sites along 1.5 miles of McIntosh Brook in Allegany State Park. Project objectives were to create much needed deep water, adult wild brook trout habitat and thus increase the abundance and size of wild brook trout in the stream. These were fairly simple structures and the work was done completely by hand and light, portable machinery and was completed in only 14 days. This was completely due to the incredible turnout of volunteers from the two local trout unlimited chapters and others. In addition to work days from staff of several state and federal agencies, there were at least 100 man-days of volunteer effort involved in building the structures. Following high spring flows, pools below the structures are now between two and three feet deep with much more overhead shelter than prior to our work. We will continue evaluate how this project changes stream habitat and wild brook trout populations in the stream from 2010-2012. This project, which is being funded by a grant from the Eastern Brook Trout Joint Venture (EBTJV), is an excellent example of the use of partnerships to get good work done.

Across the state anglers from various TU aided DEC in collecting biological, chemical and physical data from small streams that have never been surveyed, but may contain brook trout. Angling and visual observations were used to assess brook trout presence, along with interviewing landowners. Eighty-eight streams were scheduled to be surveyed by anglers in 2009 and progress to date has been appreciable. This information will be entered into the Bureau of Fisheries Statewide Database and be used to determine the distribution of and threats to our brook trout populations and be compiled with other information collected via the EBTJV to protect and restore New York's state fish.



**Energy Efficiency** - The Division of Operations is actively working with numerous state agencies to promote energy efficiency, combat climate change and increase sustainable operations across the State. We have representatives on several interagency teams including: the Advisory Council on Energy Efficiency for Executive Order 111, the Interagency Committee on Sustainability and Green Procurement for Executive Order 4, the Green Building Collaborative and others.

**Education** - The Division of Operations places a high value on public education in all of our environmental sustainability efforts. Our LEED rated green buildings are equipped with educational displays highlighting the building's green features and promoting public sustainability. We are assisting other Departmental Programs in developing various education opportunities at the State Fair and at our Education Centers. The Division of Operations has reached out to local colleges, including HVCC and RPI, to establish a solid connection and work together on projects focusing on alternative energy and high efficiency lighting.

## **Workforce, Science and Technology**

*DEC's success depends on maintaining a talented, diverse and well-equipped workforce. Our creative and committed staff includes engineers and scientists, attorneys, forest rangers, conservation officers, financial analysts, administrators and operations and information technology professionals. Each plays a critical role in achieving our mission. To maintain the quality of this workforce, we must update our personnel and recruitment policies and facilitate staff access to state-of-the-art science and information technology through in-house training, investment in information management and partnerships with universities, other state agencies and professional organizations.*

**NYS Freshwater Angler Survey** - Results from the 2007 New York State Freshwater Angler Survey were finalized and made available in four published reports. The survey is conducted approximately every ten years to obtain information on angler effort, fishing experiences, interests and opinions on fisheries management issues. The survey also gives insight on state and local economic impacts. New York's resident and non-resident anglers collectively spent an estimated \$331 million at fishing sites, and an estimated \$202 million en route to fishing sites. The Great Lakes fishery alone generated an estimated \$98 million in at-location expenditures. This comprehensive survey, which was funded through a "Sport Fish Restoration" Grant, was carried out by Cornell University's Department of Natural Resources in cooperation with DEC's Bureau of Fisheries. Each of the four reports, as well as a summary report that highlights significant findings, are available on the DEC website at <http://www.dec.ny.gov/outdoor/56020.html>



**Enhancements to DECALS** - DEC's Automated License System (DECALS) operated nearly flawlessly during the opening week of 2009-2010 license sales, starting August 17th. Several significant changes and improvements were made this year. For starters, the tags have been completely redesigned based on comments and suggestions from hunters. DEC has enlarged the printing on the tag sets, and also improved the "back side" of the tags to make it easier to read in low-light conditions. The new back tag design makes it easier to read and remember the numbers when checking hunters. The improvements also include a redesign of the phone call-in system, and this is expected to be up and running later in the fall. The internet harvest reporting system has worked very well in its first year, and DEC strongly encourages hunters to report their deer, bear, or turkey over the internet. Finally, new customers are now able to buy a license over the internet without first traveling to a DEC sales agent, increasing convenience and helping to remove any barriers to hunting, trapping, and angling participation. This year's licenses are printed on the original green stock, but DEC will continue to change the color of licenses every year to make it easier to remember which license to carry when afield. DEC greatly appreciates hearing feedback from sportsmen and sportswomen about the licensing system.

**Contribution of Naturally Produced Chinooks** - The Bureau of Fisheries is employing state-of-the art technology in managing Lake Ontario trout and salmon fisheries. A Northwest Marine Technologies automated fish-marking trailer was purchased with Occidental Chemical Natural Resources Damages settlement funding in 2008, and has since marked all Chinook salmon stocked into Lake Ontario by New York and the Province of Ontario in 2008 and 2009. This marking project is primarily designed to determine the contribution of naturally reproduced Chinooks to the sportfishery. Future marking studies will evaluate salmon pen-rearing, barge stocking, as well as comparisons of different fish strains, and various rearing/stocking methods. These studies will greatly enhance science-based management of Lake Ontario trout and salmon fisheries.



**FDA Evaluation of Shellfisheries Program** - The U.S. Food and Drug Administration (FDA) conducts annual evaluations of the shellfish sanitation programs in all shellfish-producing states to determine each state's compliance with the requirements of the National Shellfish Sanitation Program (NSSP). All components of the states' programs are reviewed: water quality monitoring in harvesting areas; laboratory program; inspection of wholesale shellfish shippers and processors; and, patrol/law enforcement. If FDA determines that a state's program is substantially out of compliance with the NSSP, that state's shellfish products can be banned from interstate commerce. In its annual program evaluation report issued in December 2008, FDA determined that New York's Shellfish Sanitation Program was in substantial compliance with the requirements of the NSSP. However, FDA expressed concerns about staffing in the Bureau of Marine Resources' shellfish growing area classification (water quality monitoring) program.

**Suspension of Conditional Harvesting Programs** - Conditional shellfish harvesting programs had been operated by DEC-BMR in partnership with the up to 10 Long Island towns for more than 25 years. Those programs allow commercial and recreational shellfish harvesters to take shellfish from areas (totaling about 7000 acres) that are usually designated as uncertified (closed) because water quality marginally fails to meet the stringent bacteriological standards for certified areas. Each year, the Towns assist DEC-BMR with special water quality studies to identify the conditions during which water quality meets certified area standards. Conditional programs require the commitment of substantial staff time that was not available because of the vacancies. DEC made the decision to forgo the conditional programs and focused staff efforts on maintaining the sanitary surveys of more than one million acres as required by both the ECL and NSSP to protect the health of consumers of New York's shellfish products.

## ***Sustainability of DEC's Own Operations***

*Sustainability is embodied in the mission of DEC. As DEC pursues that mission, it must take the opportunity to conserve energy, reduce waste and minimize the environmental footprint of its daily activities, ultimately serving as an important role model and helping to promote sustainable business practices across the state. In addition to DEC's Central Office, seven major DEC buildings have or are expected to achieve LEED certification; renewable energy technologies provide 20 percent of our electricity needs, and DEC's forestry operations were recently certified by both the Sustainable Forestry Initiative and the Forest Stewardship Council.*

**Rome Hatchery Office & Early Rearing Building** - The demolition and reconstruction of Rome Hatchery's office and early rearing building is scheduled to begin in September, 2009 and be completed within a year. This project will finish major infrastructure improvements which have included raceway enclosures, resurfacing of concrete raceways and roadways, and replacement of deteriorated raceways containing disease resistant brook trout and brown trout broodstock at the Rome fish Disease Control Center (Rome Lab) on hatchery grounds.

**New Fish Food Contract** - The DEC hatchery system's fish food contract was updated to promote competition within the feed industry while maintaining essential fish nutrition components. Additional competition for this contract, which calls for 1-million plus pounds of fish feed annually, occurred and contract costs were reduced by approximately 15% from fiscal year 2008 to 2009.

**Building Sustainability** - The expansion and renovation of the Warrensburg Regional Sub-office received LEED Gold certification. New construction and substantial renovation projects are designed and constructed to green building standards. We currently have eight such projects in design, under construction or completed that are expected to attain LEED status. These buildings are designed to use substantially less energy and have a lower carbon footprint than conventional buildings.



Renovated & Expanded Warrensburg Office



**Increase the Fuel Efficiency of DEC's Fleet** – Operations is working to minimize the carbon footprint of DEC' fleet. As much as possible, alternative-fueled (hybrid, flex fuel, electric) vehicles are purchased. There are currently over 500 alternative fueled vehicles in the Department's Fleet. Taking steps to insure that appropriate-sized vehicles are purchased. Focus is placed on purchasing fuel efficient vehicles and large capacity vehicles need to be justified. All DEC facilities that have diesel fuel tanks to support their vehicles are using B-5 or B-20 biodiesel if it is locally available. Action is underway to retrofit DEC's heavy-duty

diesel vehicles with the best available technology for reducing emissions. This effort is expected to be complete by the end of 2010. We are currently using over 60 neighborhood electric vehicles at our campground facilities.

**Energy Conservation** – Operations is continuing to work with authorities and utilities to implement peak-load reduction programs. Advanced monitoring systems, on-site renewable power systems and emergency power reduction programs are being installed or implemented.

**State Land Access** - Design and construction of two bridges in the Perkins Clearing Conservation Easement was completed. Vehicle Bridge designs were completed for Fish Creek Bridge in the Crogan Tract Easement and Alder Brook Bridge in the Santa Clara Tract. Construction will begin this fall. Deer River Culvert replacement design was completed. Design is progressing for the Long Pond State Forest. Wilmington Notch Campground bridge was completed. Mossy Vly site at Perkins Clearing utilizing the Forest Preserve Design will be constructed this fall.



Perkins Clearing Bridge

**Santanoni Historic Area** - Reconstruction of a historic stone arch culvert into the historic Santanoni Farm will be completed this fall.

**Fire Towers** – Mt. Adams Fire Tower analysis was completed. The Beacon Hill Fire Tower was inspected.

**Sustainable Operations** - Division of Operations staff are participating on the Department's internal Sustainability Work Group. This is a multi-disciplinary group charged with increasing sustainable operations and outreach of our Department. The Division of Operations co-chairs this team, and plays an active role in its ongoing success in "greening" our infrastructure and Programs.