



New York & Long Island Field Offices

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Climate Change Initiatives at the New York Field Office

Bird habitat restoration and carbon sequestration via implementation of agricultural best management practices.

The Partners for Fish and Wildlife Program has done extensive work in the St. Lawrence Valley, which contains many agricultural grasslands interspersed with abundant freshwater wetlands and tributaries. Our objective in this focus area is to continue to work with the Natural Resources Conservation Service and others to restore habitats on 1,000 acres resulting in the sequestration of several thousand tons of carbon through implementation of various agricultural best management practices (BMPs) and habitat



restoration activities. The sequestration of carbon has been well documented to offset climate change. With this habitat work, we are focused on increasing carbon uptake on agricultural lands including an evaluation of no-till agriculture, reforestation, grassland improvement, wetlands recovery, and riparian restoration. These on-the-ground activities complement collaborative research with the U.S. Department of Agriculture, Department of Energy's (DOE) Office of Science, U.S. Environmental Protection Agency, and U.S. Department of the Interior.

The U.S. Fish and Wildlife Service (USFWS) is providing technical assistance to agencies engaged in alternative energy development.

Governor Paterson has set aggressive energy efficiency/renewable energy goals for the State to reach – 45% by 2015. To achieve these goals, the State continues to encourage hydrokinetic energy projects in the ocean off Long Island and in tidal waters around New York City. As of April 22, 2008, 72 wind projects were in the queue, ranging from Schenectady International's 9.3 megawatt facility in Rotterdam to Winergy Power's 601 megawatt New York City project. Other initiatives include a biofuel plant development in Central New York, more traditional hydropower project relicensing and upgrades, and development of additional nuclear power generation at Nine Mile Point on Lake Ontario.



During the lengthy project development and licensing process, New York Field Office/Long Island Field Office (NYFO/LIFO) staff evaluate the effects of these proposals on Federally-listed species, migratory and breeding colonial waterbirds, roosting and migrating bats, including the Federally-listed endangered Indiana bat, and in the case of tidal energy projects, fish and waterfowl.

NYFO continues consulting on effects of new transmission line to strengthen the electrical grid.

The New York Regional Interconnect, Inc., (NYRI) has proposed a 200-mile 500kV transmission line from the Utica area in Oneida County to Orange County, New York. The NYRI requested early designation from the DOE as a National Interest Electric Transmission Corridor; the Service trust resources include three Federally-listed species – the bog turtle, dwarf wedge mussel, and Indiana bat – as well as migratory birds, including the bald eagle, interjurisdictional fish, and waters of the United States.

LIFO working on landscape scale Fire Island to Montauk Point (FIMP) to offset storm damage that may be accelerated and more severe due to sea level rise attributed to climate change.

LIFO is continuing to work on the FIMP hurricane protection and beach erosion control project along 83 miles of the south shore of Long Island, one of a series of coastal erosion prevention projects along the Atlantic Coast of New York, New Jersey, Maryland, and Virginia. A Conceptual Plan for the over \$24 million reformulation project considered climate change and sea level rise as significant factors in the analysis of project alternatives. Barrier islands that are allowed to function naturally can respond to changes in sea level and have done so for tens of thousands of years. In the past 50 years, however, humans have armored inlets to maintain their locations, constructed groin fields to trap sand, dredged inlets to prevent the natural process of ebb and flood shoal from reaching equilibrium preventing long shore currents from performing naturally, repeatedly renourished beaches to prevent natural erosion and overwash, filled in breaches, dredged navigation channels, and allowed hard structures, including extensive bulkhead construction, on the back bay. Our recent work involves identification of suitable project conservation measures, including listed species habitat creation, enhancement, and maintenance and proactive habitat restoration opportunities, as well as locations for suitable compensatory mitigation for unavoidable project adverse effects. Each one of these sites will be evaluated for its potential sustainability given the likely effects of climate change on sea level elevations as well as changes in storm frequency and severity. LIFO continues to work with the National Park Service, New York State Department of Environmental Conservation (NYSDEC), New York State Department of State, local communities, the Long Island Congressional Delegation, and Suffolk County to develop the most practicable alternative to meet project goals while recognizing environmental changes likely to occur with climate change and sea level rise.



Climate Change/Green Energy and Wildlife – Outreach Initiative



NYFO staff are developing our next traveling exhibit, one that will convey information on how our agency is beginning to look at the effects of climate change on fish and wildlife. Specifically, we seek to inform the public about alternatives to fossil fuel/greenhouse gas-producing technologies coming online in New York and being evaluated for their impacts to fish and wildlife. Since the industrial revolution, thousands of small- to medium-sized and dozens of very large hydroelectric generation facilities have been built in New York to “harness” the power of water as it tumbles down rapids or waterfalls or is sent through penstocks attached to reservoirs created to store water for release through power generation facilities. Most of these facilities were built with little to no regard for impacts to fish and wildlife, including impacts from blocking migratory routes, entrainment of small fish, and larvae mortality associated with that. In addition, hydroelectric power reservoirs convert once rapidly flowing, highly oxygenated, and cold water habitat into a lotic environment with increased sedimentation, higher temperatures, and modified water chemistry. It is our goal to ensure that the new technologies, including wind energy turbines, hydrokinetic generators, and other modern turbines, are sited and constructed in a way that takes impacts to fish and wildlife into account. The exhibit will include a landscape diorama, a three-sided kiosk packed with information, and a companion workbook for children.

