

Successes In Stewardship

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New York City Wetlands Strategy Protects Coastal Ecosystems

Over the past century, approximately 85 percent of coastal wetlands and hundreds of miles of riparian corridors in the New York-New Jersey Harbor Estuary, and 90 percent of freshwater wetlands in New York City have been lost due in large part to urbanization in the area. Development and pollution have significantly degraded the natural systems in the remaining wetlands in the region. The city of New York has prioritized protecting and restoring these coastal ecosystems as part of a larger effort to create a “greener, greater” city. [PlaNYC](#), originally released by the city of New York’s Office of Long-Term Planning and Sustainability in 2007 and revised in 2011, works to address issues important to the city, including projected population increases, economic growth, climate change, and quality of life. The [New York City Wetlands Strategy](#), released in May 2012 as part of PlaNYC, provides an action plan to protect, preserve, and restore the city’s coastal ecosystems. In particular, the Wetlands Strategy seeks to revise existing mitigation strategies for wetland infill and development by replacing onsite mitigation requirements with in-lieu fee mitigation or consolidated wetland mitigation. These changes are intended to enhance environmental protection and streamline the mitigation process.

Challenges to Wetland Protection

Healthy wetlands provide many ecological, economic, and educational benefits. These include providing biologically productive habitats for a variety of plant and animal species, helping to retain stormwater, filtering sediment and other pollutants from runoff, acting as a buffer from storm surges and floods, and offering a variety of opportunities to educate the public about aquatic ecosystems. New York City’s Wetlands Strategy identifies five main challenges to sustaining these valuable resources: development, pollution, mitigation, funding, and climate change.

In New York City, wetland development and filling occurs for projects such as pier, bulkhead, and bridge maintenance and construction. New York State requires onsite wetland mitigation for these types of projects, requiring that the mitigation take place at the site of disturbance or at a nearby location. However, New York City’s densely developed infrastructure makes environmental restoration on a single parcel difficult to achieve, as there is often insufficient space onsite to adequately mitigate the impacts of development. Because of



This map compares historic wetlands in New York City (shown in light green) to the current wetlands inventory (shown in dark green). (Courtesy of the Regional Plan Association)



Jamaica Bay is a tidal salt marsh wetland that is facing accelerated fragmentation and loss. (Courtesy of the U.S. Army Corps of Engineers (USACE))

New York City Wetland Protection Strategy: 12 Initiatives

Protection

1. Strengthen protection of vulnerable parcels.
2. Increase wetlands acquisition efforts.
3. Update the Waterfront Revitalization Program to enhance wetlands protection.

Mitigation

4. Work with State and Federal partners to revise wetlands mitigation guidance.
5. Create consolidated wetland mitigation or in-lieu fee mechanisms for public projects.

Restoration

6. Complete city-funded restoration projects.
7. Create a natural areas conservancy.
8. Work with State and Federal partners to complete and implement the Comprehensive Restoration Plan.

Assessment

9. Improve wetlands mapping in New York City.
10. Monitor tidal wetlands and analyze the potential impacts of sea-level rise.
11. Assess the conditions and functions of New York City wetlands.
12. Develop a research agenda to address wetlands challenges.



Workers begin construction of a wetland restoration project at Gerritsen Creek in Brooklyn. (Courtesy of New York City Department of Parks and Recreation)

this, wetland restoration projects are often small (less than one acre), not cost-effective, and less ecologically valuable. In addition, agencies seeking permits to develop or fill a wetland face challenges that make project development slow and unpredictable, due in part to difficult-to-interpret State wetlands mitigation guidelines.

Proposed Wetlands Protection Strategy

The New York City Wetlands Strategy addresses the development, pollution, mitigation, funding, and climate change challenges through 12 initiatives, which fall under the general categories of protection, mitigation, restoration, and assessment. (See the text box to the left for a list of the 12 initiatives.) The strategy proposes that New York City work with its State and Federal partners to revise wetlands mitigation guidance and use consolidated wetland mitigation (also known as mitigation banking) or in-lieu fee mechanisms for public projects. The implementation of these two initiatives will not only provide ecological benefits for wetlands, but will also help streamline the development of projects in wetland areas.

Revise State Wetlands Mitigation Guidance

The Wetlands Strategy states that New York City will work with the State to create a science-based mitigation policy that provides clear guidance on a variety of factors, such as ecological criteria, impact assessments, compensation and replacement ratios, monitoring and maintenance, and mitigation strategies including creative urban alternatives. This revised guidance will help New York City address the challenges that it has faced in wetlands mitigation.

Consolidated Wetland Mitigation and In-Lieu Fee Mitigation

While onsite mitigation was long considered the best way to replace a wetland's hydrologic functions, both the USACE and the U.S. Environmental Protection Agency (EPA) have concluded that consolidated wetland mitigation and similar strategies that restore and create larger wetland areas are preferred. The USACE and EPA's 2008 [Compensatory Mitigation for Losses of Aquatic Resources; Final Rule](#), ranks in-lieu fee mitigation and consolidated wetland mitigation as the top two wetlands mitigation options. As part of in-lieu fee mitigation, permit applicants pay a third-party governmental or nonprofit organization to conduct compensatory mitigation offsite instead of conducting it themselves onsite. In consolidated wetland mitigation, permit applicants can instead buy mitigation credits from an established wetland bank. These credits represent the ecological value of aquatic resources that have already been established, preserved, enhanced, or restored. Wetland banks are required to develop a detailed mitigation plan that includes performance standards and management and monitoring requirements for each compensatory mitigation site. An interagency team then reviews and monitors the plan, which provides a method of enforcement lacking in many other mitigation strategies.

In-lieu fee mitigation and consolidated wetland mitigation achieve economies of scale by combining mitigation efforts from projects with small individual wetland impacts. In addition, the built-in planning and oversight processes, as well as the supplementary scientific expertise that is required of consolidated wetland mitigation ensure that the mitigation is effective. Implementation of one of these alternative mitigation strategies would also decrease permit processing times, streamlining the project development process for roadway and other development and maintenance projects.

Next Steps

The New York City Wetland Strategy commits to developing a consolidated wetland mitigation strategy to mitigate wetland impacts for public projects, evaluating onsite mitigation costs, and creating a list of potential mitigation opportunities. By the end of 2013, the city will work with its partners to provide clear, transparent, and scientifically sound wetlands mitigation guidance and develop a consolidated wetland mitigation strategy or an in-lieu fee mechanism for public projects. By revising the current wetlands mitigation process, officials believe that the city of New York will be able to better protect the environment while streamlining maritime infrastructure improvement processes.

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Look What's New!

- FHWA recently released an updated version of its [Tool Kit for Land Use and Transportation Decision-Making](#) on its website. The tool kit provides a user-friendly, web-based source of methods, strategies, and procedures for integrating land use and transportation planning, decision-making, and project implementation. The tool kit website includes the tool kit itself, case studies on seven tools to showcase how they are used in practice, and other references and links, including reports and websites for more information.

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