



# Public Notice

Applicant:

**DUCKS UNLIMITED, INC.**

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Expires: March 9, 2011

U.S. Army Corps  
of Engineers  
Buffalo District  
CELRB-TD-R

Application No: **2010-00673**

Section: NY

All written comments should reference the above Application No. and be addressed to:  
Buffalo District U.S. Army Corps of Engineers  
Orwell Regulatory Field Office (Attn: Mark Gronceski)  
33 Grand Valley Avenue  
Orwell, Ohio 44076

**INTERESTED PARTIES ARE HEREBY NOTIFIED THAT A PROSPECTUS HAS BEEN RECEIVED PURSUANT TO 33 CFR 332 PROPOSING THE ESTABLISHMENT OF AN IN-LIEU FEE PROGRAM (ILFP) TO PROVIDE MITIGATION FOR IMPACTS TO WATERS OF THE UNITED STATES UNDER SECTION 404 OF THE CLEAN WATER ACT WITHIN TEN SERVICE AREAS ENCOMPASSING SIXTEEN 8-DIGIT HYDROLOGIC UNIT CODE (HUC) WATERSHEDS WITHIN THE STATE OF NEW YORK. THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE ESTABLISHMENT OF THE PROPOSED ILFP.**

**THIS IS NOT AN APPLICATION FOR WORK IN FEDERALLY REGULATED WATERS; HOWEVER, AUTHORIZATION UNDER SECTION 404 OF THE CLEAN WATER ACT MAY BE REQUIRED FOR IMPLEMENTATION OF PARTICULAR MITIGATION SITES LATER PROPOSED UNDER THE ILFP, IF APPROVED. SUCH SITES WOULD BE ADVERTISED UNDER SEPARATE PUBLIC NOTICES. NO DECISION HAS BEEN MADE AS TO WHETHER THIS ILFP WILL BE APPROVED.**

**SPONSOR:** Ducks Unlimited, Inc., 1220 Eisenhower Place, Ann Arbor, Michigan 48108

**LOCATION:** The ILFP is proposed to include ten service areas (the geographic area for which mitigation can be provided) encompassing sixteen 8-digit HUC (Hydrologic Unit Code, a designation for the watershed drainage area encompassed) regions: 04150101 (Black River), 04120103 (Buffalo-Eighteen Mile Creek), 05010002 (Conewango-Pennsylvania River), 04140101 (Irondequoit-Nine Mile Creek), 04130003 (Lower Genesee River), 04120104 (Niagara River), 04140202 (Oneida Lake), 04140203 (Oswego River), 04140201 (Seneca Finger Lakes Region), and 04150301 through 04150307 (St. Lawrence River) within the State of New York. The service areas are primarily within the

regulatory boundaries of the Buffalo District, Corps of Engineers, however, the Black River (04150101) and St. Lawrence River (04150301 through 04150307) service areas extend into the New York District, Corps of Engineers.

**DESCRIPTION OF PROPOSED ACTIVITY:** Under Section 404 of the Clean Water Act (CWA), applicants for Department of the Army permits to discharge dredge or fill material into waters of the United States, including wetlands, are often required to mitigate for permitted wetland losses by creating, restoring, enhancing, or in exceptional circumstances, preserving wetlands or streams. Authorized ILFP's provide the US Army Corps of Engineers (Corps) and the regulated public with additional options for compensatory mitigation of aquatic resource losses. The establishment and use of an ILFP must be in accordance with an ILFP instrument approved by the Interagency Review Team (IRT). The IRT is presently comprised of the Corps, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the New York State Department of Environmental Conservation.

If the prospectus is deemed sufficient, the ILFP program will be established through the development of an ILFP instrument to be signed by the sponsor, the Corps, and other IRT members which choose to do so. The process will follow 33 CFR 332, Compensatory Mitigation for Losses of Aquatic Resources ("Mitigation Rule"). The Mitigation Rule was published in the Federal Register on April 10, 2008. The ILFP program would provide an alternative to permittee-responsible mitigation if it is deemed appropriate during the review process for proposed unavoidable impacts to waters of the US authorized under Section 404 of the Clean Water Act ("Section 404"). It may also provide an alternate type of mitigation for Civil Works projects requiring compensation for impacts to aquatic resources as well as providing a resource for use in resolving enforcement cases under Section 404. The entire prospectus entitled, "**Western New York In-Lieu Fee Program Prospectus**" is attached to this Public Notice.

The Corps is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps in determining whether to allow the sponsor to proceed to develop a draft ILFP instrument. Comments are also used to determine the need for a public hearing.

Comments or questions pertaining to this prospectus should reference the Application Number and be directed to the attention of Mark Gronceski, who can be contacted at the above address, by calling (440)

437-5847, or by email at Mark.E.Gronceski@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the proposed ILFP.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-332. Any interested party desiring to comment on the work described herein may do so by submitting their comments in writing so they are received no later than 4:30pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the review for this proposal. All written comments will be made part of the administrative record which is available to the public under the Freedom of Information Act. The administrative record or portions thereof may also be posted on a Corps internet website. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment. Copies of comments received will be forwarded to the sponsor and to the members of the Interagency Review Team.

**SIGNED**

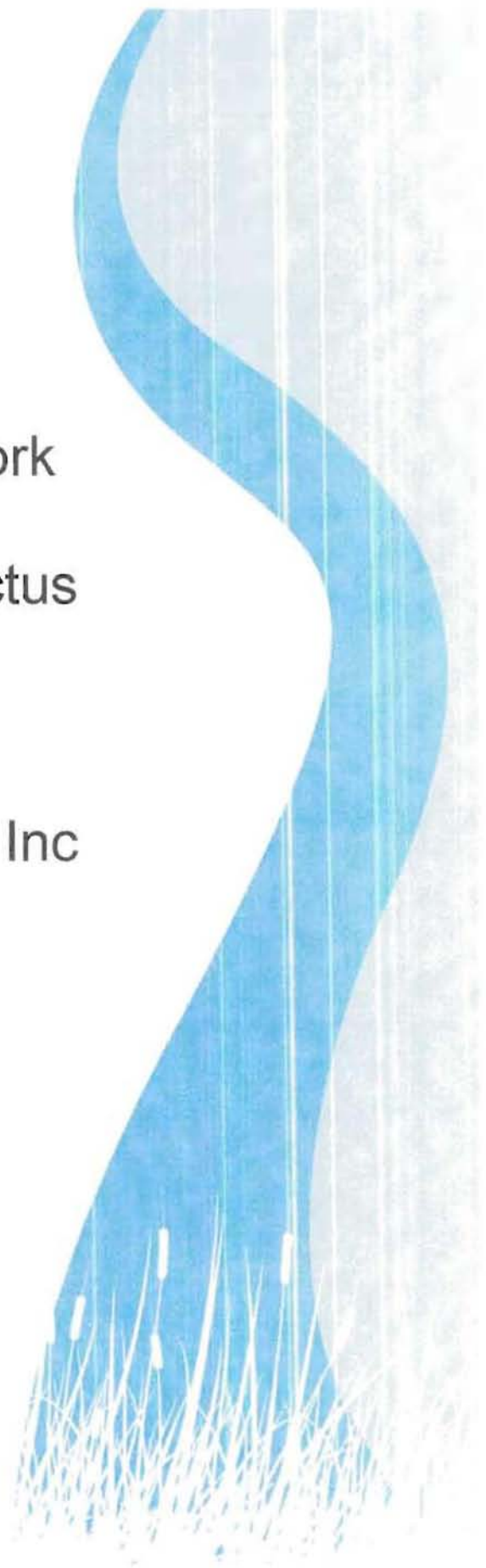
Diane Kozlowski  
Chief, Regulatory Branch

**NOTICE TO POSTMASTER:** It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.



Western New York  
In-Lieu Fee  
Program Prospectus

Ducks Unlimited, Inc





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### **Ducks Unlimited, Inc. Administrative Contact**

Christopher Theriot  
Mitigation Program Manager  
Ducks Unlimited, Inc.; Great Lakes/Atlantic Regional Office  
1220 Eisenhower Place  
Ann Arbor, MI 48108  
734.623.2000  
ctheriot@ducks.org

### **Ducks Unlimited, Inc. Engineering Contact**

Peter Wyckoff  
Engineer  
Ducks Unlimited, Inc.; Great Lakes/Atlantic Regional Office  
1220 Eisenhower Place  
Ann Arbor, MI 48108  
734.623.2000  
pwyckoff@ducks.org

### **Ducks Unlimited, Inc. State Biologist**

Sarah Fleming (beginning January 17, 2011)  
New York Regional Biologist  
Contact information TBA  
sfleming@ducks.org

Current address  
Mitigation Specialist/Regional Biologist  
Ducks Unlimited, Inc.; Great Lakes/Atlantic Regional Office  
1220 Eisenhower Place  
Ann Arbor, MI 48108  
734.623.2000

## Purpose:

**Ducks Unlimited, Inc., Great Lakes/Atlantic Regional Office is proposing to develop an In-Lieu Fee Program in Western NY. The NY In-Lieu Fee Program will include 10 Service Areas.**

## Qualifications of Sponsor

DU's Mission: Ducks Unlimited conserves, restores, and manages wetlands and associated habitats.

Ducks Unlimited is the largest private habitat conservation organization that is solely dedicated to the conservation of North American wetlands through partnerships, volunteers, and an expert staff of scientists, engineers, and fundraisers. DU is the leader in wetlands conservation.

Ducks Unlimited (DU) is the world's largest private wetlands conservation organization and has over 70 years of experience restoring and protecting habitat, especially aquatic resources. DU has restored or protected in excess of 13 million acres in the United States. DU has worked with numerous conservation partners, including agencies, NGOs, and businesses in New York to deliver wetland and upland conservation through land protection, restoration, and enhancement.

The Great Lakes/Atlantic Regional Office (GLARO) of Ducks Unlimited is located in Ann Arbor, Michigan and services an 18-state region in the northeastern U.S. The GLARO is one of four DU regional offices in the U.S. which coordinate and facilitate all aspects of DU's habitat conservation programs in the U.S. – transforming ideas, science and wildlife ecology into completed projects. The GLARO has more than 40 full-time conservation staff including biologists, engineers, mitigation and land protection specialists, land surveyors, CAD technicians, construction managers, GIS specialists, project coordinators, accountants, contract compliance managers, legal representation, and administrative assistants (see Appendix I for organizational charts).

Great Lakes/Atlantic Region



DU applies a science-based watershed approach to natural resource conservation and mitigation. DU delivers turn-key wetland and stream mitigation projects throughout the country and works extensively with regulatory staff, permittees, partners, landowners and land managers to deliver high quality compensatory mitigation projects that span all types of wetlands, streams, riparian buffers, and upland habitats. DU's conservation mission ensures the delivery of high quality mitigation projects and allows us to use our expertise



and our network of partners, land owners, and land managers to pair mitigation funds with lands that are best suited for wetland, stream, and upland restoration and protection as required by compensatory mitigation policies.

DU provides complete, full service delivery of high-quality mitigation projects for permittee-responsible mitigation, ILF programs, and mitigation banks. Ecological services include, but are not limited to:

- Site Identification and Evaluation
- Wetland Delineations
- Hydrology and Soils Investigations
- Wetland and Stream Design and Permitting
- Watershed Planning
- Development of Comprehensive Mitigation Plans
- Development of Mitigation Banking Instruments
- Wetland Construction and Plan Implementation
- As-Built Surveys and Documentation
- Monitoring Performance
- Contingency and Adaptive Management
- Long-Term Protection, Conservation Easements
- Long-Term Management
- Accounting and Financial Assurance

DU's 70 years of experience delivering and managing national and international wetland conservation programs and projects has provided extensive knowledge and expertise restoring values and functions of wetland systems. The experience gained from delivery of DU's conservation mission and extensive partnerships with federal, state, and private landowners have ensured successful identification of priority areas for wetland establishment, enhancement, restoration and protection. For example, DU has over 20 years experience with wetland restoration and almost 10 years experience delivering and managing permittee responsible mitigation projects in NY. DU's extensive permittee-responsible mitigation projects in NY have established, enhanced, restored, and protected a diversity of wetland and stream communities and associated upland buffers. Examples of successfully mitigation projects in NY include restoration of palustrine emergent, scrub-shrub, and forested wetlands, protection of bottomland hardwood forests, and stream and riparian buffer enhancement (Appendix III). DU's mission and science-based conservation approach ensures wetland mitigation successfully restores the values and functions of impacted wetland and stream systems. DU's mitigation program ensures watershed level wetland and habitat conservation beneficial to wildlife and people.

## **Introduction and Statement of Need**

The prospectus describes the proposed Ducks Unlimited, Inc.- Western New York In-Lieu Fee Program (DU-NY ILF program) and establishes guidelines, responsibilities, and standards for the establishment, use, operation, and maintenance of the DU-NY ILF program. This prospectus addresses compensatory mitigation for impacts to the waters of the United States and state waters including wetlands, streams, and associated buffers for the State of New York.

The DU-NY ILF program will be used for compensatory mitigation for unavoidable impacts to waters of the United States in the State of New York. Permits are required by the U.S. Army Corps of Engineers ("Corps") through the Clean Water Act ("CWA") Section 404 for discharge of dredge or fill materials within "waters of the U.S.," through the Rivers and Harbors Act Section 10 for structures or work in or affecting navigable water of the U.S., and by the New York Department of Environmental Conservation ("DEC") Environmental Conservation Law which includes the Fresh Water Wetland Act Article 24, The Stream Protection Act Article 15, and Water Pollution Control Act Article 17. The goal of these regulatory agencies is to enforce policies related to freshwater wetlands which enhance the preservation and protection of New York's freshwater wetlands by seeking restoration of wetland benefits and functions lost as the result of impacts.

The DU-NY ILF prospectus proposes the circumstances and manner in which a ILF program (i.e., DU-NY ILF program) will provide a compensatory mitigation option to permit applicants under the Corps and DEC permit programs, including as a potential option for compensation for secondary impacts; for possible use by the Corps for civil works projects; and as an option for resolution of enforcement cases.

Numerous studies have shown that many compensatory mitigation projects and mitigation banks throughout the U.S. have sub optimal outcomes and a high rate of failure. Many mitigation projects either fall short of or fail to meet performance standards and have significant information gaps regarding conservation goals, planning considerations, design features and monitoring data (Wilkinson and Thomas 2005; Minkin and Ladd 2003; NRC 2001; Kusler and Kentula 1990). Mitigation failure rates and poor outcomes are linked to several specific issues that can be addressed by developing an ILF program that incorporates landscape and watershed planning, well-defined project goals and success criteria, baseline data, proven site selection criteria and restoration techniques, and effective monitoring and management plans. All of these best practices are addressed in the DU-NY ILF program sponsored by Ducks Unlimited, Inc.

Federal regulations under Department of Defense 33 CFR Parts 325 and 332, Compensatory Mitigation for losses of aquatic resources, Final Rule, recognize

that ILF programs are an environmentally preferable option over permittee-responsible mitigation based on several factors. ILF program projects target larger, more ecologically valuable parcels that have been prioritized on a landscape or watershed scale. Under the Federal Register, ILF programs must include thorough scientific analysis, planning, implementation and monitoring for each project. The structure of an ILF program facilitates up-front site selection, mitigation plan development, and provides for better scientific expertise, and financial assurances which translates to reduction of temporal loss of aquatic resource function and project success uncertainty (33 CFR Part 332).

### **Objectives of the DU-NY ILF Program**

The objectives for the DU-NY ILF program are as follows:

- Provide an alternative to permittee-responsible compensatory mitigation that will effectively replace functions, values, and services lost through permitted impacts.
- Provide a compensatory mitigation option for Corps Civil Works projects, and function as an option for resolution of enforcement cases.
- Minimize the temporal loss of wetland and stream functions and services by gaining approval of mitigation sites in advance of mitigation needs as funds allow.
- Create a program that has a level of accountability commensurate with mitigation banks as specified in 33 CFR Part 332.
- Provide projects to meet current and expected demand for mitigation credits.
- Achieve ecological success on a watershed basis by providing wetland and streams functions and values that are appropriate to the service area and by integrating DU-NY ILF program projects with other conservation activities whenever possible.

### **Establishment and Operation**

DU proposes to serve as DU-NY ILF program sponsor for Corps and DEC authorizations in New York. As a non-profit conservation organization, DU will work with the Corps and DEC to assure their requirements for resource compensation are being met. An Interagency Review Team (IRT) will advise the Corps on the establishment and management of the DU-NY ILF program. The team will be comprised of representatives invited by the Corps from other federal, state, tribal, and local resources agencies that would have a substantive interest



in the establishment and management of the ILF program sponsored by DU. The Corps may designate different representatives of the agencies listed above, and may invite additional members to serve on the IRT for individual mitigation projects.

The structure of the DU-NY ILF program will be outlined in this prospectus with a compensation planning framework that describes the program elements, such as service area determination, watershed conditions, priorities and needs, project selection criteria, implementation, credit/debit accounting, and reporting requirements. The final instrument will serve as the “umbrella” beneath which mitigation projects within the proposed service areas of western and northern counties of NY will be proposed and implemented. Each mitigation project will have a separate mitigation plan reviewed and signed by DU and the Corps, and added through amendment to the DU-NY ILF program instrument. Mitigation plans will be developed and implemented in accordance with 33 CFR 332 and the Buffalo District Corps. Mitigation plans will include the following twelve elements:

1. Project objectives
2. Site selection factors
3. Site protection instrument
4. Baseline information
5. Determination of credits
6. Work plan
7. Maintenance plan
8. Performance standards
9. Monitoring requirements
10. Long-term management plan
11. Adaptive management plan
12. Long-term funding mechanism

Wetland and stream delineations and functional assessments will be completed using Corps-approved techniques before and after project implementation to help guide mitigation plan development and evaluate success. DU will remain responsible for the implementation of mitigation plans under the DU-NY ILF program, DU will act as program manager and report to the Corps on the work conducted programmatically (see Reports Section).

### **DU- NY ILF Program Description**

#### **Proposed Service Areas and Prioritization Strategies**

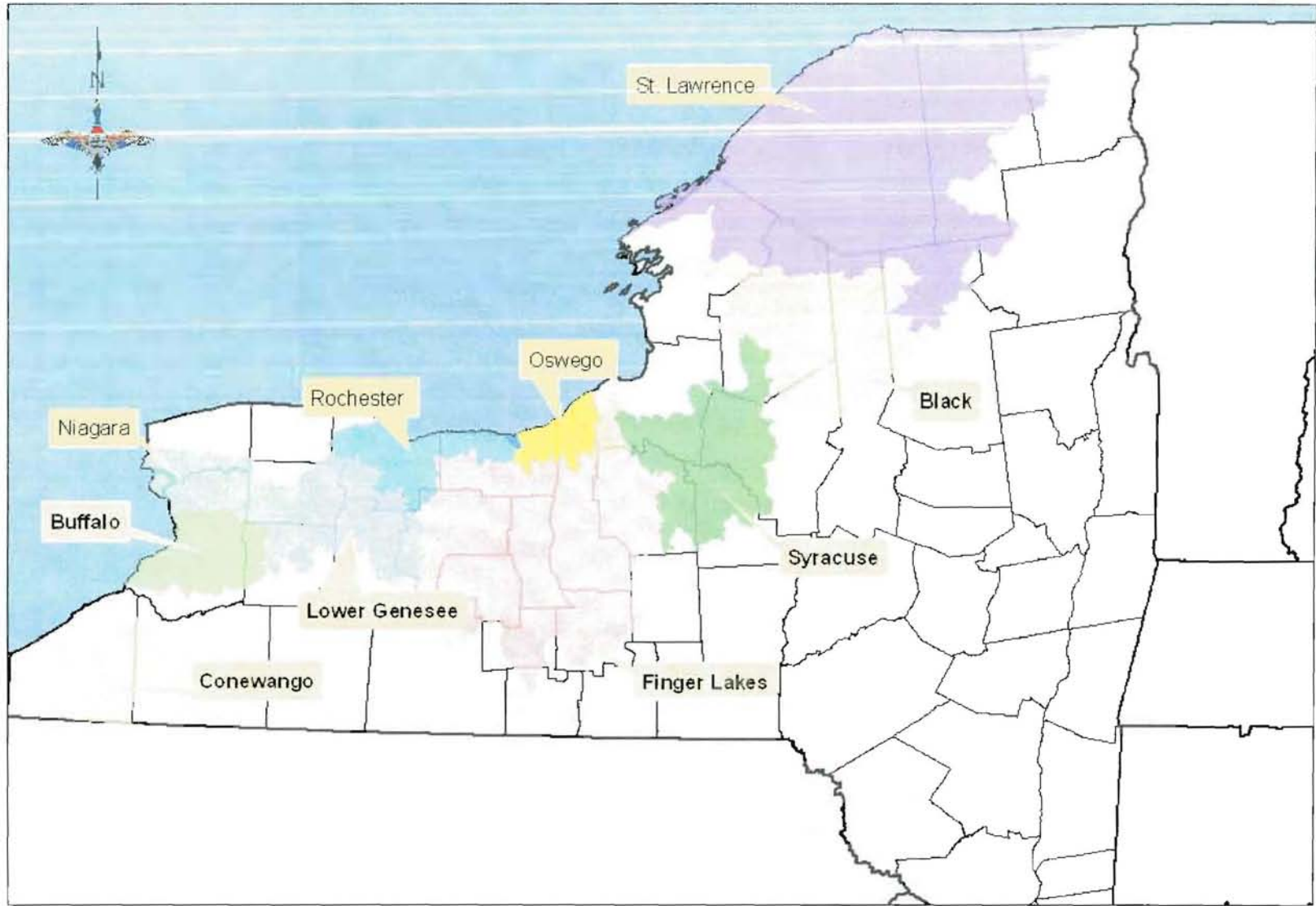
DU will develop a DU-NY ILF program by mitigation plans for potential projects in NY to provide compensatory mitigation for impacts to the waters of the U.S. and state waters, including wetlands and streams. DU's team of mitigation biologists, engineers, and GIS specialists provide full service delivery of high quality

mitigation projects. DU will provide the necessary personnel, equipment, and materials to complete the full scope of services for a mitigation projects. These services include, but are not limited to, 1) site identification and concept plan; 2) site surveys, designs, and mitigation plans; 3) site construction; 4) Long term protection through conservation easements; and 5) monitoring and contingency plans.

DU will mitigate for aquatic resource loss within watersheds by completing projects in the same watershed as the impacts (e.g., a watershed approach). A landscape perspective within watersheds will be used to identify types and locations of potential DU-NY ILF program projects. The nature of the permitted impacts and watershed priorities will guide project design to maximize the benefits to the watershed and improve project success and sustainability.

An appropriate geographic service area will be established as part of each individual mitigation plan. DU is proposing ten major river basins to be included in the umbrella instrument prospectus. The ten river basins proposed include:

1. Black River (HUC 4150101)
2. Buffalo-Eighteen Mile Creek (HUC 04120103) *aka Buffalo*
3. Conewango-Pennsylvania River (HUC 05010002)
4. Irondequoit-Nine Mile Creek (HUC 04140101) *aka Rochester*
5. Lower Genesee River (HUC 04130003)
6. Niagara River (HUC 04120104)
7. Oneida Lake (HUC 04140202) *aka Syracuse*
8. Oswego River (HUC 04140203) *aka Oswego*
9. Seneca Finger Lakes Region (HUC 04140201) *aka Finger Lakes*
10. St. Lawrence (HUC 04150301-04150307)



**Proposed In-Lieu Fee Service Areas**





The proposed geographic service areas were selected based on several criteria: a watershed approach, existing planning efforts in NY by DEC, internal DU planning efforts, as well as demand for compensatory mitigation. The watershed and associated river basins share common zoogeographic history, physiographic, and climatic characteristics, thus have distinct assemblage of freshwater habitat. Using sound science, mitigation projects will target watersheds where wetland or stream restoration projects will be designed to achieve effective compensation, maximize benefits to the watershed, and improve project success and sustainability.

DU's service area stratification mirrors the NYSDEC's current watershed conservation efforts and serves as a framework for a watershed approach to prioritizing restoration, establishment, enhancement, and preservation of aquatic resources and associated upland buffers. The service areas were also chosen because the scale is appropriate to ensure the projects selected will effectively compensate for adverse environmental impacts across the entire service area and enable financially sound delivery of the program (smaller service areas are not financially viable due to impact history). DU will use a landscape perspective within service areas to identify types and locations of DU-NY ILF Program projects and subsequently design projects to maximize the watershed benefit and offset impacts to aquatic resources and their associated upland buffers caused by permitted activities.

### **Proposed Services Areas**

#### **Service Area 1 - Black River Watershed (HUC 4150101)**



The Black River watershed is located in north central NY. It drains the western slope of the Adirondack Mountains and the eastern edge of Tug Hill before entering into Lake Ontario. The Black River flows over 180 miles, encompasses 1,920 square miles and is fed by the Beaver and Moose Rivers (combined 857 miles long; NYSDEC 2009). The Black River watershed is dominated by forest and half the watershed boundary within the Adirondack Park. The entire watershed contains 3,910 miles of rivers and streams and over 600 lakes and ponds of various sizes. Of the lakes and ponds, there are 179 significant

freshwater lake and reservoirs. Stillwater Reservoir (6,195 acres) and Fulton Chain of Lakes (4,301 acres) are the largest lakes (NYSDEC 2010).

Water quality in the Black River watershed is strongly influenced by atmospheric deposition. Acid rain is responsible for a substantial portion of the water quality impairment. Deposition of mercury in the rain results in fish consumption restrictions. A relatively low human population in the Black River watershed results in few human-related water quality impacts. Similarly, agriculture also contributes to a small portion of the water quality concerns.

Major water quality concerns are linked to, 1) acid rain, 2) atmospheric deposition of mercury, 3) agriculture and other nonpoint sources, 4) site-specific and rural community wastewater treatments in non-sewered areas (NYSDEC 2010). However, despite limited human impacts to the Black River Basin, 21% of the river miles (806 miles) are listed as Priority Waterbodies by NYSDEC (2010). There are 75 lakes segments on the Priority Waterbody List that have impaired uses or minor impacts. About 85% of all lakes are impaired by acid rain (NYSDEC 2009).

Anthropogenic changes like development (residential and commercial, roads, power lines), dredging, and wetland draining, and natural changes such as succession have reduced not only habitat quantity, but the quality of habitat as well by disrupting the function of remaining habitat patches (NYSDEC 2010d).

Primary management in the watershed focuses on the ability of the waterways to support fish and aquatic wildlife, recreational use, and drinking water. Therefore, water quality goals often focus on supporting a systems best uses. A comprehensive plan has been created by NYSDEC (2009).

Watershed Management Goals include:

- 1) Partnerships, collaborations, and education: improve communication between groups, promote shared ownership, build partnerships, and provide a richer understanding of the water quality issues.
- 2) Development, infrastructure and storm water management: reduce the adverse impacts from new development, reduce loading of nutrients, bacteria, and sediment into water bodies
- 3) Wastewater management: reduce nutrient loads
- 4) Agricultural practices and management: maintain viable agricultural land use, minimize negative impacts.
- 5) Floodplain management: Improve preservation of riverine and lacustrine floodplains and shorelines, improve coverage and accuracy of floodplain delineation
- 6) Forestry practices: Ensure continued viability of the forestry practices, minimize negative impacts
- 7) Invasive species control: prevent establishment of invasive species.



- 8) Planning and land use: ensure management plans and safe land use practices are in place.

**Service Area 2 - Buffalo-Eighteen Mile Creek (HUC 04120103)**



The Buffalo River watershed encompasses approximately 445 square miles and drains portions of Buffalo and Wyoming counties in western New York state. In the upper basin the land use patterns within the watershed are primarily agricultural and woodland. Greater urban, residential, and industrial development is present in the lower basin (Great Lakes Commission 2009). The watershed drains into portions of Erie and Wyoming County with three major sub-watersheds, the Cayuga, Buffalo, and Cazenovia creeks. Historically, the best use of the Buffalo River has been identified as fishing and other recreational activities.

The Buffalo River is considered an Area of Concern by NYSDEC because of the degradation of the aquatic resources, such as the loss of fish and wildlife habitat, impacted macro-invertebrate community, and pollutants from abandoned industrial companies (i.e., mills and chemical companies). The Buffalo River played an important role in the development of Buffalo. However, years of industrial and municipal impacts degraded the river, and subsequent economic changes left the region with a number of abandoned, contaminated properties and deteriorating facilities on or near the river (NYSDEC 2010f). Other sources of pollutants include, wastewater facility discharge, various point and non-point source pollutants, river contamination (e.g., mercury, PCBs, chromium) Streambank erosion is a considerable source of contamination in the Buffalo River (Great Lakes Commission 2009).

The major environmental stressors in the watershed are related to changes in human land use, such as agricultural practices and commercialization, residential development, and industrial and commercial development. General habitat loss is the most significant and most frequently cited threat to species groups occurring in the watershed. Habitat loss through the conversion to a human dominated land use includes agricultural impacts and an overall transformation of the landscape with buildings and roads (NYSDEC 2010c).



The NYSDEC has stated that restoration of fish and wildlife habitat, and the populations that thrive within the river's ecosystem are a primary target for conservation goals (NYSDEC 2010f).

Watershed Management Goals include:

- 1) Improved stability of stream banks
- 2) Minimize bank erosion
- 3) Develop a management use plan for intense human-use areas
- 4) Enhance existing aquatic habitat
- 5) Ensure long-term monitoring to ensure success
- 6) Evaluate and assess habitat conditions for mammals, birds, herptofauna, and fish
- 7) Implement invasive species control
- 8) Up date and maintain water treatment facilities

The mission of the Buffalo-eighteen mile River Action Plan is to restore the chemical, physical and biological integrity of the ecosystem in the Areas of Concern in a manner that reflects the communities concern for the preservation and protection of the watershed (EPA 2010). Local communities and governments would be key players in the restoration of the Great Lakes watershed ecosystem and more specifically in remediation activities within Areas of Concern, such as the Eighteen-mile Creek watershed.

**Service Area 3 - Conewango-Pennsylvania River (HUC 5010002)**



The Conewango Watershed has 1,406 miles of river/streams and covers over 900 square miles. The Conewango Creek is a tributary of the Allegheny River and the Conewango watershed covers much of southeastern Chautauqua County and southwestern Cattaraugus County, NY. The creek's most notable tributary is the Chadakoin River which supplies the creek water from Chautauqua Lake. The majority of the landscape is covered with forest, wetlands, and streams, but agricultural lands are also common in the region.

Generally, water quality within the watershed can be classified as good to satisfactory. Evidence of poor water quality in the watershed typically results from nutrient loads and invasive species in Chautauqua Lake. Similarly, agricultural and other nonpoint sources contribute nutrients and sediment to the waters. Urban and industrial sources (i.e., run-off) have also been identified as sources that impact water quality. Aquatic life in the Conewango Creek is impacted by nutrient enrichment, and NYSDEC (2009b) has reported declining and moderately impacted waterways. However, poor agricultural management, including livestock with unrestricted access to streams, improper manure application on fields, intensively cultivated crop lands with minimal riparian buffers, and fertilizer and pesticide application to fields in the absence of approved management plans have significantly impacted the water quality in the rivers and lakes in the basin.

The major environmental stressors in the Conewango Creek watershed are related to residential development, oil and gas production, agriculture, forestry practices, stream bank erosion, altered hydrology, and gravel mining (NYSDEC 2010c).

The watershed management goal for the Conewango watershed is to remain as one of the pristine areas of the state where its rich diversity of habitat types will continue to support human and wildlife use. Conservation strategies are set at an ecosystem and landscape scale, but management actions will target priority habitat areas and species of greatest concern where applicable. Specific goals for habitat improvement will follow the NYSDEC Comprehensive Wildlife Conservation Strategy and will focus on state, federal, and NGO goals, such as the NYSDEC Wildlife Action Plans and Natural Heritage Program, and TNC priority natural areas.

Watershed Management Goals include (NYSDEC 2009b):

- 1) Determine the status and trends of grasslands, early and late-succession forests, wetlands and aquatic habitats in the basin.
- 2) Set goals by habitat types
- 3) Monitor quality and quantity of habitat types.
- 4) Set nutrient and sediment reduction targets
- 5) Identify specific threats
- 6) Establish normal stream flow and conditions
- 7) Identify barrier mitigation opportunities
- 8) Implement BMP for farming to reduce erosion, protect habitat, and reduce nutrient loading



#### **Service Area 4 - Irondequoit-Ninemile Creek (HUC 04140101)**



The Irondequoit-Ninemile watershed is located along Central Lake Ontario. The Irondequoit Bay encompasses 1,720 acres and is part of the 326 miles of the Lake Ontario shorelines. The majority of the watershed occurs in a rural setting, with considerable agricultural lands and forest tracts. Irondequoit Creek encompasses 316 miles. In the Lake Ontario Watershed, including the Irondequoit-Nine Mile Basin, 53% of the river miles, 66% of the lakes, ponds and reservoirs acres, and 100% of the Lake Ontario shore miles have been assessed (NYSDEC 2010b). The water quality along the Irondequoit-Nine Mile is largely a reflection of the water quality in Lake Ontario. Over the past several years toxins discharged into the Lake and its Tributaries have resulted in fish consumption advisories. Similarly, nutrients and resulting aquatic plant growth continues to impact recreational use and near shore waters.

Habitat loss due to development was the most commonly listed threat in the watershed. This is not surprising since nearly half the land in the watershed has been altered by human activity. The potential for wind energy development near Lake Ontario or elsewhere poses an unknown future risk to migratory birds and bats in this region. Recent developments in use of biofuels for energy could stimulate major changes in agriculture in this basin, with potential effects on many terrestrial wildlife species (NYSDEC 2010c).

Energy related developments of various kinds pose a significant threat to many aquatic and migratory fish and wildlife species in this watershed. In the past, damming of rivers and streams for hydropower has had a lasting effect on aquatic habitats throughout the watershed. Major water quality issues for the Irondequoit-Ninemile include, 1) invasive species, and 2) legacy industrial discharge in areas of concern currently being remediated (NYSDEC 2010b). Other water issues also include excessive nutrient loading from point and nonpoint sources, atmospheric deposition of pollutants, invasive and aquatic plants, zebra mussels and other species, and inadequate on-site water treatment systems (NYSDEC 2010b).



Watershed Management Goals include:

- 1) Better protection and enhance the sensitive natural areas and resources
- 2) Improve and protect water quality for desired uses which emphasize a healthy ecosystem
- 3) Ensure development around the watershed without impacting significant resources (e.g., environmental, historical, archeological)
- 4) Minimize and resolve water surface use conflicts and conflicts among stakeholders.
- 5) Improve public access to a diversity of recreational opportunities

**Service Area 5 - Lower Genesee (HUC 04130003)**



The Genesee River drains 2,500 square miles of New York and Pennsylvania and is of historical, ecological, and cultural value. The watershed has been compromised by flooding, rapid industrial growth, and population growth and related development impacts. The watershed contains 24 separate sub-watersheds, but the watershed's primary drainage channel (i.e., the Genesee River) travels through highly industrialized portions of Rochester, NY immediately before entering Lake Ontario.

The Genesee River originates in the Allegheny Mountains in Potter County, PA (Genesee/Finger Lakes Regional Planning Commission 2004), flows for 157 miles northward and ends at Lake Ontario. A wide range of land use patterns are found in the Genesee River Basin. For example, 52% of the land is used for agriculture, while 40% remains in forests and approximately 5% of the land in the watershed is classified as developed. Presently only 2% of the watershed is composed of wetlands and water. A 2004 regional planning commission report estimated that 42,000 acres of NYSDEC regulated wetlands, 5,048 miles of rivers and streams, and 13,288 acres of lakes, ponds and reservoirs (Genesee/Finger Lakes Regional Planning Commission 2004).

There are approximately 31 lakes, ponds, and reservoirs within the watershed of which 9 are listed as priority water bodies, as reported on the New York State Water Quality Monitoring Strategy. Priority water bodies are defined as waters that have documented water quality impacts, impairments, or threats (Genesee/Finger Lakes Regional Planning Commission 2004). Of the total 13,288 acres of lakes, ponds and reservoirs, 64% are included as priority water bodies. Similarly, 34% of the 1,733 miles of streams in the Genesee watershed are identified as Priority Water bodies (Genesee/Finger Lakes Regional Planning Commission 2004). The most significant source of impact to the Genesee River is agricultural practices (i.e., run-off, pesticide use), stream bank erosion, stormwater run-off, and hydrological modifications. High levels of nutrients and silt/sedimentation negatively affect numerous uses in the Genesee River Basin, such as recreational activities (fishing, swimming), aquatic organisms, and aesthetics.

The major environmental stressors in the watershed are related to changes in human land use, such as agricultural practices and commercialization, residential development, and industrial and commercial development. The most frequently cited threat to species groups occurring in the watershed included development of buildings, road ditches, and roads (NYSDEC 2010c).

Primary pollutant sources in the Genesee River watershed have been documented by local, state, and federal agencies. Management goals for the Genesee River watershed are based on realistic short-and long-term goals to target the primary pollutant sources (see Genesee River watershed Action Strategy; Genesee/Finger Lakes Regional Planning Commission 2004).

Watershed Management Goals include:

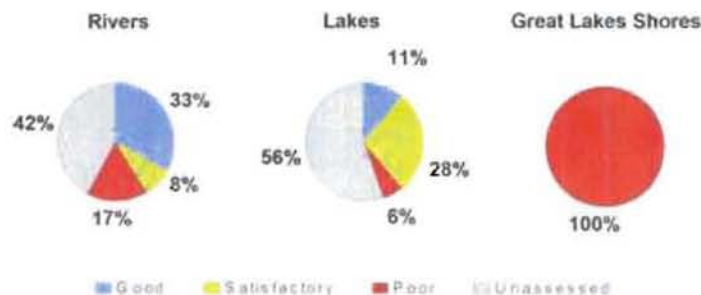
- 1) Agriculture: NY State Agriculture Environmental Management Plan for whole farm planning.
- 2) Stream bank erosion: Initiate the Genesee River watershed Sediment Transport Model, stream bank inventories, structural and regulatory controls, and bioengineering to reduce erosion.
- 3) Storm water run-off: Develop management programs and compliance measures for all counties.
- 4) Hydrological and Habitat Management: apply the Genesee River watershed Sediment Transport Model, develop watershed plans to improve wetlands and riparian habitats.
- 5) Wastewater Treatment Systems: public outreach programs and ensuring routine inspections.
- 6) Municipal Drainage/Industrial Discharge: Full compliance and improvements related to facilities.
- 7) Toxic and Contaminated Sediments: Develop an innovative strategy with agencies to remove contaminants.

**Service Area 6 – Niagara River (HUC 05010002)**



The Niagara River watershed is located in Western NY. At the point where Niagara River watershed empties into Lake Ontario, the watershed encompasses more than 265,000 square miles of the north central US and south central Canada. The drainage watershed in NY is approximately 2,280 square miles of northern Appalachian Plateau and Lake Shoreline (NYSDEC 2002). There are 4,086 miles of freshwater rivers and streams and the three major tributaries are the Tonawanda and Cattaraugus Creeks, and the Buffalo River. There are also 24 significant freshwater lakes, ponds, and reservoirs (1,098 acres). Historically, productive marshes were used by resident and migrating wildlife for feeding, breeding, and wintering habitat along the Niagara River. Over 80 species of fish have been reported in the Niagara River. However, development of industries has severely altered the landscape, whereby reducing marsh habitat and degrading water quality (NYSDEC 2007).

Water quality issues in the Niagara River Watershed are usually associated with human expansion and urban development.



**Good water quality:** Fully supports designated activities and uses  
**Satisfactory:** Fully supports designated activities, but with minor impacts  
**Poor (Impaired):** does not support designated activities and uses  
**Unassessed:** Insufficient data available (NYSDEC 2010)



The most frequently cited threat to both aquatic and terrestrial species groups occurring in the watershed was outright loss of habitat by conversion to a human dominated land use. This threat includes hardening of the landscape with buildings and roads, but can also include activities like land clearing and wetland draining for agriculture and mining (NYSDEC 2010d).

Major water quality concerns in the watershed include 1) industrial discharge, 2) urban stormwater and sewer overflow, 3) stream bank erosion, and 4) agricultural and other nonpoint sources of nutrient and various other pollutants (NYSDEC 2007). NYSDEC routinely monitors and assesses water quality throughout the state and publishes detailed reports. The primary water quality issues in Niagara River watershed are identified in the Great Lakes Areas of Concern, Remedial Action Plans, and Lakewide Management Plans (NYSDEC 2007).

Watershed Management Goals include:

- 1) Water quality
- 2) Inactive hazardous water site remediation
- 3) Contaminated river sediments
- 4) Point-source pollutants control
- 5) Improving fish and wildlife habitat.
- 6) Long-term monitoring
- 7) Waste water treatment facilities
- 8) Human health

The Water Quality Summary provided by NYSDEC (2007) reported that one-fourth of the river miles in the Niagara River watershed (1,216 miles) are listed as Priority Waterbodies and have been identified as either “not supporting designated activities and uses” or having impacts of threats to the water quality. There are 7 lakes included on the Priority Waterbodies List. Agriculture, sediment contamination, and failing on-site septic systems are likely causes of the impairments. Similarly, 33% of the total lake acreage are listed as having minor impacts from elevated nutrient and silt sediment levels (NYSDEC 2007).

## Service Area 7 - Oneida Lake (HUC 04140202)



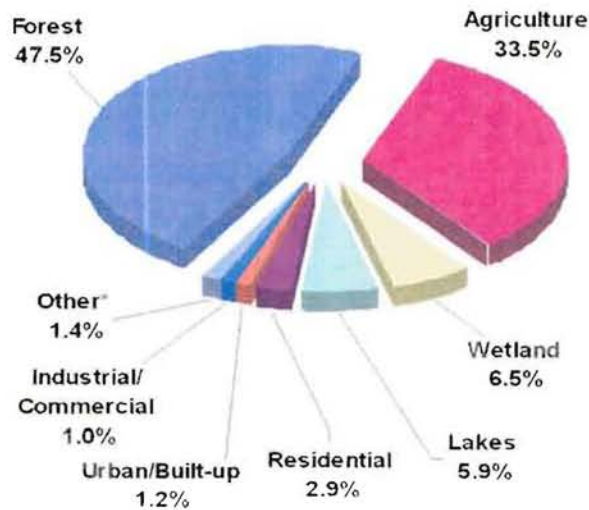
The Oneida Watershed includes 69 municipalities and a total of 872,722 acres where surface and ground water from this area drains into Oneida Lake (Central New York Regional Planning and Development Board [CNYRPDB] 2010). There are 2,330 miles of rivers and 428 lakes totaling 66,391 acres. The watershed was once vast forest covering much of the Great Lake region. Today about 80% of the watershed is covered with second growth forest (Oneida Lake and Watershed Advisory Council 2004). The watershed has been dramatically altered by human activities since the late 18<sup>th</sup> century. Agriculture and timber industry resulted in the clearing of forests across much of the watershed. In 1900, 90% of the land in the watershed was used for agriculture, contrasted with approximately 40% today. The primary land use in the watershed is agriculture, but the first major land uses occurred in the 1800s which included logging, sand mining, and salt industries. Wetlands are prolific throughout the watershed but have been significantly reduced by development and agriculture. Wetland losses result in a reduced ability of the watershed to filter nutrient and sediment pollutants, temper water levels during periods of high precipitation, and provide habitat for wildlife.

The most prevalent threat is urban and expanding suburban areas of the basin, like the Syracuse Metro area (NYSDEC 2010). This watershed has high human population growth which coincides with locations of some of the most sensitive habitats and the rare species that depend upon them. Anthropogenic changes like development (residential and commercial, roads, and power lines), dredging, and wetland draining, and natural changes such as succession has reduced habitat quality (NYSDEC 2010c).

The CNYRPDB is coordinating the Oneida Lake and Watershed Management Plan. The management plan is a regional initiative. It is an opportunity for local governments and stakeholders to identify and prioritize issues of concern in the watershed and to select restoration and enhancement goals for the long-term protection of water resources (CNYRPDB 2004).

Watershed Management Goals include:

- 1) Cooperation among organizations, pool services, and enhanced communication
- 2) Ability to prioritize projects to develop ecologically based, cost effective solutions
- 3) Increase recreational opportunities
- 4) Increase biodiversity
- 5) Expand economic potential for watershed residents
- 6) Improve opportunities for research grants
- 7) Water resource goals are established as grassroots, locally based
- 8) Improve watershed riparian zones
- 9) Reduce impacts of invasive species
- 10) Implement a comprehensive management plan



Land use in Oneida Lake watershed (NYSDEC 2010f)



### **Service Area 8 - Oswego River (HUC 04140203)**



The Oswego River was listed as an Area of Concern (AOC) by EPA. The Oswego River is located on the southeastern shore of Lake Ontario and includes the harbor area and the lower segment of the Oswego River up to the Varick power dam. The harbor itself is characterized as a multiple-use resource. The Oswego River watershed includes industries, municipalities, and extensive areas of farmland and forest (EPA 2010b). The Oswego River is second only to the Niagara River in size as a tributary to Lake Ontario. For the Oswego Watershed impairments involving fish consumption, fish habitat and populations, and eutrophication and algae have been identified (EPA 2010b).

The most prevalent treat in this watershed is urban and expanding suburban areas. The potential for wind energy development near Lake Ontario or elsewhere poses an unknown future risk to migratory birds and bats in this region. Recent developments in use of biofuels for energy could stimulate major changes in agriculture in this basin, with potential effects on many terrestrial wildlife species (NYSDEC 2010c).

#### Watershed Management Goals include (EPA 2010b):

- 1) Hazardous Waste Site Remediation
- 2) Comprehensive Contaminated Sediment Management Strategy
- 3) Point Source Discharge Control
- 4) Nonpoint Source Pollution Control
- 5) Air Pollution Control
- 6) Fish and Wildlife Assessments/Actions
- 7) Health and Environmental Assessments/Actions
- 8) Investigations and Monitoring Activities

A specific mitigation project in the highest ranked watershed of each service area will be identified and a plan developed to address watershed priorities. The service area may be adjusted appropriate to each individual mitigation plan. DU will utilize existing statewide or regional documents for historic and current watershed information. DU will also work closely with other groups currently engaged in aquatic resource assessment and planning. For example, the NY State DEC, with a grant from the Environmental Protection Agency, is currently assessing wetlands not identified on the New York Significant Wetland Inventory Maps, updating wetland maps, developing protocols to assess wetland function, and developing methods for successful restoration and mitigation. The results of this work will be used to help guide development and implementation of the NY-DU ILF Program.

**Service Area 9 - Seneca-Finger Lakes Region (HUC 04140201)**



Seneca Lake (42,400 acres) is the largest of the eleven Finger Lakes and is located in central New York State in conjunction with numerous systems of lakes and rivers known as the Oswego River Basin. Water flow entering and exiting the watershed is a results of three Plateaus, the Appalachian, Tug Hill, and Lake Ontario Plain (Genesee/Finger Lakes Regional Planning Commission 2007). There are twenty-nine sub-watersheds and direct drainages associated with the Seneca Lake watershed. The lakes and principal tributaries on the southern edge of the region drain more than one quarter of the watershed. The physiography of the watershed often resulted in flooding and navigation problems. Numerous projects have been developed and implemented to control lake and river water levels, create hydroelectric power, and alleviate flooding.

In the 1800s, the land in the Seneca Lake watershed was dominated by a mixture of northern hardwood and softwoods (elm-red maple northern hardwoods, oak- hardwoods, and pine-oak northern hardwoods; (Genesee/Finger Lakes Regional Planning Commission 2007). Conversion from forest to  $\leq 90\%$  agriculture occurred in the 1800s. Beginning in the late 1900s, agricultural lands were abandoned and many formerly cleared lands are reverting back to forests. Currently, 41% of the watershed is forested (Genesee/Finger Lakes Regional Planning Commission 2007). Wetlands are fairly evenly

distributed throughout the watershed and there are 4,155 acres of New York State Department of Environmental Conservation regulated wetlands (Genesee/Finger Lakes Regional Planning Commission 2007). At the watershed scale, agricultural land has been steadily decreasing, while forest, developed areas, and idle lands are increasing (Genesee/Finger Lakes Regional Planning Commission 2007).

This watershed has high human population growth which coincides with some of the most sensitive habitats and rare species that depend upon on those habitats. Anthropogenic changes, such as development (residential and commercial, roads, power lines), dredging, wetland draining, and natural changes (such as succession) reduced habitat quality (NYSDEC 2010d).

Water quality in the Seneca Lake watershed has been reported as good, but Eurasian water milfoil (*Myriophyllum spicatum*), zebra mussels (*Dreissena polymorpha*), and containment loads remain problematic in some waterways. Its geographic location in the Atlantic Flyway, makes the Seneca Lake watershed an important migration and wintering habitat for a diversity of waterfowl including, American black ducks (*Anas rubripes*), Canada geese (*Branta canadensis*), lesser and greater scaup (*Aythya affinis* and *A. marila*; respectively), redhead (*Aythya americana*), and canvasbacks (*Aythya valisineria*). Further, the Finger Lakes represent some of the most important recreational fisheries in NY making water quality in watersheds a priority issue. Current water quality issues are related to invasive species, nutrient over-loading (i.e., mine, pesticide, landfill, and agricultural run-off), river bank erosion, and decreased riparian zones (Genesee/Finger Lakes Regional Planning Commission 2007). Management in the Seneca Lake Watershed should focus on an adaptive management approach with initial efforts to increase sampling and monitoring of water quantity and quality issues.

Watershed Management Goals include:

- 1) Agriculture: agricultural best management practices
- 2) Forestry: watershed stream-side management plans (STMZ), and sustainable forestry management plan
- 3) Roads: best management practices to control pollutants on roads and ditches
- 4) Stream bank stabilization
- 5) Public education
- 6) Storm water, erosion, and sediment control and management
- 7) Development of a comprehensive watershed management plan
- 8) Identification and reduction of containment loading
- 9) Increased riparian buffers



**Service Area 10 - St. Lawrence (HUCs 04150301-04150307)**

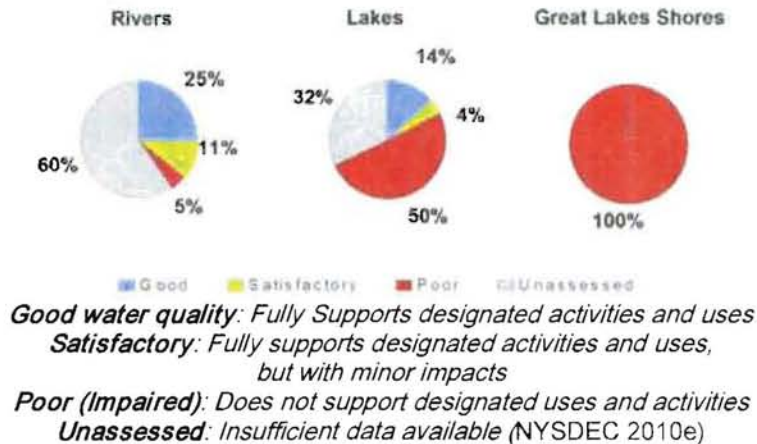


The St. Lawrence River watershed lies at the border of New York and Canada. Within New York the watershed drains the northern and western Adirondack Mountains and the lake plain region of the St. Lawrence Valley (NYSDEC 2009c). The proposed St. Lawrence watershed service area encompasses all of St. Lawrence county, most of Franklin, Jefferson, Lewis, Herkimer and Hamilton counties, and a small part of western Essex and Clinton counties. The entire service area covers 5,600 square miles of land in New York (NYSDEC 2010g) and drains approximately 300,000 square miles. There are 11,371 miles of freshwater rivers and streams, 376 significant freshwater lakes, ponds, and reservoirs, and 185 miles of Great Lake shoreline (NYSDEC 2010g). The land use in the watershed is split between dense forested woodlands in the northern and western Adirondack Mountains and the flat agricultural lands along the lake plain (NYSDEC 2009c). The major economic activities in the watershed are agriculture, logging, mining, and recreation/tourism (NYSDEC 2009c).

Water quality in the St. Lawrence Watershed is affected by atmospheric deposition of pollutants that originate outside the basin. Acid rain and mercury pose the most significant water quality issues. Similarly, the water quality is also affected by agricultural activities, hazardous wastes, and other industrial impacts. Acid rain and mercury limit fish consumption and aquatic life, and poor agricultural practices and run-off contribute to nutrient and sediment loading in the waterways (NYSDEC 2010e).

Anthropogenic changes like development (residential and commercial, roads, power lines), dredging, and wetland draining, and natural changes such as succession have reduced habitat quantity, the quality of habitat, and disrupted the function of remaining habitat patches (NYSDEC 2010d).

There are several major tributaries in the St. Lawrence which include the Oswegatchie, Indian, Raquette, St. Regis, Grass River, and the Indian River watersheds (NYSDEC 2009c).



About fifteen percent of the 11,371 river miles in the St. Lawrence are included on the NYSDEC Priority Waterbodies list and are considered stressed or threatened (NYSDEC 2009c). Sixty-nine percent of the 376 lakes in the watershed are included on the Priority list.

Watershed Management Goals include:

- 1) Work with conservation stakeholders to manage, protect, and enhance the at-risk biodiversity
- 2) Manage animals, habitats, and land use practices to produce sustainable benefits for species of conservation concern
- 3) Identify, manage, maintain, and protect/restore habitats and communities over a broad spatial scale
- 4) Control and reduce the spread of invasive species
- 5) Development, infrastructure and storm water management: reduce the adverse impacts from new development, reduce loading of nutrients, bacteria, and sediment into water bodies
- 6) Agricultural practices and management: maintain viable agricultural land use, minimize negative impacts.
- 7) Floodplain management: Improve preservation of riverine and lacustrine floodplains and shorelines, improve coverage and accuracy of floodplain delineation
- 8) Forestry practices: Ensure continued viability of the forestry practices, minimize negative impacts

## **Project Selection Criteria**

Each DU-NY ILF program mitigation project will be evaluated for its potential to provide appropriate compensatory mitigation for impacts to aquatic resources in accordance with the compensation planning framework established in the DU-NY ILF program Instrument based on the following criteria:

- a) Likelihood of success: Funded projects must predict a high likelihood of success through a sound wetland restoration, establishment, and/or enhancement design. This includes documented presence of hydrology, soils, and other conditions conducive to aquatic resource development. Threats from invasive species or vandalism should be low or manageable. Each project will be evaluated for its ability to result in successful and sustainable net gain of aquatic resource area and/or functions.
- b) Multiple objectives: Projects will be evaluated based on their potential to address multiple functions and services which may include improvement of fish and wildlife habitat, support for rare species, flood attenuation, water quality improvement, and recreation or education values. Projects that can utilize native plant community diversity and natural processes will yield greater functional gains and will be given preference.
- c) Supports regional conservation initiatives and is compatible with the surrounding landscape: Projects should be located where they compliment adjacent land uses, meet regional conservation priorities, address limiting factors in watersheds, increase habitat diversity, support state wildlife action plans, reduce fragmentation, establish corridors, and enhance the function of existing natural areas.
- d) Project costs: Projects with greater aquatic resource functional gain per dollar will be given preference. DU-NY ILF program funds can be used in conjunction with other resources so long as other funding sources do not act to subsidize required mitigation.

## **Reports and reporting protocols**

### *Monitoring reports*

Monitoring is required of all compensatory mitigation projects to determine if the project is meeting performance standards and if additional measures are necessary to ensure that the compensatory mitigation project is accomplishing the objective(s). If DU fails to submit reports within 60 days of the deadlines outlined in the mitigation plan(s), the Corps may take appropriate compliance actions (see Default and Closure section).



Project-specific mitigation plans will detail the parameters to be monitored, the length of the monitoring period, the dates that the reports must be submitted, and the frequency for submitting monitoring reports to the district engineer. DU will be responsible for conducting the monitoring and responsible for submitting monitoring reports to the district engineer and the IRT.

#### *Credit Transaction Reports*

This prospectus establishes the terms by which the legal responsibility for compensation requirements is transferred from the permittee to DU. These terms require DU to submit a credit sale letter to the Corps. The credit sale letter must be signed by DU and the permittee and dated. The credit sale letter must include the permit number(s) for which DU is accepting fees, the number of credits being purchased, and resource type(s) of credits being purchased. See Appendix II for sample letter.

DU must submit to the district engineer the signed and dated credit sale letter within 30 days of receiving the fees from the permittee.

#### *Annual Program Report*

DU will submit an annual report (annual ledger report) to the district engineer and the IRT. The report will be made available to the public upon request. The Corps may post the report on their website. The annual program report will be submitted no later than March 31<sup>st</sup> of each year and will include summaries of each project from the previous calendar year (January 1 – December 31). The annual report will include the following information:

- 1) Program account reporting (financial)
  1. All income received and interest earned by the program account for the program and by service area.
  2. A list of all permits for which in-lieu fee program funds were accepted by service area including:
    - The Corps permit numbers (and/or state number or Civil Works project name)
    - The service area in which the authorized impacts are located
    - The amount of authorized impacts
    - The amount of required compensatory mitigation
    - The amount paid to the in-lieu fee program
    - The date the funds were received from the permittee
  3. A description of in-lieu fee program expenditure/disbursements from the account for the program and the service area.

## Compensation Planning Framework

DU's Compensatory Planning Framework, based on a landscape-watershed approach, outlines the framework for selecting, securing, and implementing wetland and stream aquatic resource restoration, establishment, enhancement, and preservation under the DU-NY ILF program.

Ducks Unlimited is the largest private habitat conservation organization that is solely dedicated to the conservation of North American waterfowl and wetlands through partnerships, volunteers, and an expert staff of scientists, engineers, and fundraisers. The Great Lakes/Atlantic Regional Office provides comprehensive conservation solutions to help restore the continent's deteriorating wetlands and streams in 18 states, from Wisconsin to Virginia and north to Maine. DU's conservation approach improves the overall environment through soil and water conservation, improved water quality and flood control, and increased wildlife habitat. Our vision is 'functionally integrated landscapes capable of perpetually sustaining healthy populations of waterfowl and other wildlife through the retention and restoration of their ecological integrity'.

The mission of Ducks Unlimited, Inc. is to conserve, restore, manage wetlands, and associated habitats for North American waterfowl. These habitats also benefit wildlife and people. To achieve that mission, DU uses an ecosystem approach to large scale planning defined in our International Conservation Plan (ICP, [www.ducks.org](http://www.ducks.org)) with sound scientific principles and adaptive management as the underpinning of all planning exercises. DU adopted an ecosystem approach because it recognizes spatial interrelationships and overlooks jurisdictional boundaries. An ecosystem approach further allows for a step-down approach to conservation delivery in which the largest planning units are defined conceptually by watershed boundaries, whereas operational and specific mitigation plans will occur at the service area/project level as defined in this document.

To effectively target habitat conservation activities, DU had developed several targeting tools across the country to aid in this process. Specifically, with the purpose of targeting quality wetland restoration and protection activities, DU has combined several data layers into decision tools to identifying potential projects on the ground. These tools include base layers of hydric soils, digital elevation, land use and ownership, development trends, water quality rankings, spatial analyses including surrounding landscapes, invasive species type and distribution, to list a few. Further, DU develops, fosters and maintains strong relationships with partners and landowners that enable efficient identification of appropriate lands.



## **Public and Private Stakeholder Involvement**

As the DU-NY ILF program sponsor, DU will optimize compensatory mitigation efforts under the ILF program by working closely with interested agencies, other organizations, and private entities. Information will be shared via the public notice period for the prospectus. In addition, DU will continue to work closely with other conservation entities, public and private organizations, agencies, and landowners to identify stream and wetland mitigation opportunities and develop mitigation plans and methods for inclusion in the final DU-NY ILF program instrument following IRT review and Corps approval. Methods for assessing aquatic resource functions pre- and post-project implementation will be coordinated with ongoing efforts by DEC and other entities in New York. This will allow DU-NY ILF program efforts to dovetail with ongoing inventory and monitoring efforts.

## **Credit structure**

### **Advanced Credits**

Upon approval of the DU-NY ILF Instrument, DU will be permitted to sell advanced credits which will be proposed in the draft instrument. The number of advance credits available for sale will likely vary, will be specified by service area, and will be determined based on the estimated credits that have been required to compensate for impacts permitted over the past four years (data provided by FOIA request of ACOE). Acres are used as a stand-in for credits. The Corps District has guidance that provides suggested ratios for various types of wetlands (e.g., palustrine forested). During the permitting process for each proposed impact, the Corps will determine the appropriate ratio for restoration, enhancement, establishment, or protection. In the service areas that have experienced relatively few impacts over the past four years, a minimum of 25 advanced credits will be needed to ensure that the DU-NY ILF program has sufficient financing.

Advanced credits will be converted to released credits as milestones specified in specific mitigation plans are achieved. Credit production and performance goal achievements will be detailed in project-specific mitigations plans which are approved by the IRT. Credit release schedules may vary by project specific monitoring period timelines and will vary between restoration/enhancement and preservation.

### **Wetland and/or Stream Preservation:**

A typical release schedule for preservation might include:

- a) 75% credit release at the signing of the preservation documents, and
- b) the final release of 25% once financial assurances are documented and in place.



**Wetland and/or Stream five (5) year monitoring period:**

A typical credit release schedule for restoration/enhancement with a five year monitoring period might include:

- a) 20% release at approval of the mitigation plan,
- b) 20% at as-built production,
- c) 15% after the first year of successfully transitioning to desired performance standards, approved by IRT.
- d) 15% after the second year of successfully transitioning to desired performance standards, approved by IRT.
- e) 15% after successfully transitioning to desired performance standards, approved by IRT.
- f) The final 15% upon Corps sign-off.

**Wetland and/or Stream ten (10) year monitoring period:**

A typical credit release schedule for restoration/enhancement with a ten year monitoring period might include:

- a) 10% release at approval of the mitigation plan
- b) 20% release at as-built production,
- c) 15% after second year of successfully transitioning to desired performance standards, approved by IRT,
- d) 15% fourth year of successfully transitioning to desired performance standards, approved by IRT,
- e) 15% after sixth year of successfully transitioning to desired performance standards, approved by IRT,
- f) 15% after eight years of successfully transitioning to desired performance standards, approved by IRT,
- g) The final 10% upon Corps sign-off.

Once DU has sold all the advance credits, no more advance credits may be sold until an equivalent number of credits have been released in accordance with the approved credit release schedule outlined in a project specific mitigation plan. Once all advance credits are fulfilled, an equivalent number of advance credits may be made available for sale, at the discretion of the district engineer and IRT.

DU will complete land acquisition and/or securement and initial physical and biological improvements for a project in a watershed by the end of the third full growing season after receipt of the first DU-NY ILF program payment. If DU fails to meet this deadline, the district engineer must either make a determination that more time is needed to plan and implement an in-lieu fee project or direct DU to

disperse funds from the DU-NY ILF program account to provide alternative compensatory mitigation to fulfill those compensation obligations.

### **Project specific credits and fee schedules**

Fees for the DU-NY ILF program will be based on a full cost accounting analysis of the expected costs associated with the restoration, establishment, enhancement, and/or preservation of aquatic resources in the service areas described in this prospectus for NY. The program costs in this analysis include land acquisition, project planning and design, construction, plant materials, labor, legal fees, monitoring, remediation or adaptive management measures, program implementation, contingency costs over the life of the project, establishment of a long-term management and protection fund, financial assurances that are expected to ensure successful completion of the in-lieu fee project, an administrative fee and may reflect other factors as deemed appropriate by DU. These fees will be reviewed annually by DU and will be adjusted as necessary to represent full cost accounting of project expenses. The fee schedule will be provided to the Buffalo Corps District, Regulatory Division, Policy Analysis, and Technical Support Branch, so that Corps staff can provide the information to permit applicants.

Credits generated for wetland mitigation will be determined as follows (total credits that must be purchased by the client to compensate for wetland impacts will be determined USACE) :

- a) Restoration: One (1) acre of restored wetland is equivalent to one (1) credit.
- b) Establishment: One (1) acre of established wetland is equivalent to one (1) credit.
- c) Enhancement: Two (2) acres of enhanced wetland are equivalent to one (1) credit.
- d) Preservation: only areas beyond those for restoration, establishment, and/or enhancement are eligible for credit. Five (5) acres of preservation are equivalent to (1) credit.

Credits generated for stream mitigation will be determined as follows (total credits that must be purchased by the client to compensate for wetland impacts will be determined USACE) :

- e) Restoration: One (1) linear foot of restored stream is equivalent to one (1) credit.
- f) Enhancement: Two (2) linear feet of enhanced wetland are equivalent to one (1) credit.
- g) Preservation: only areas beyond those for restoration, establishment, and/or enhancement are eligible for credit. Five (5) linear feet of preservation are equivalent to (1) credit.

The recommended compensatory mitigation ratios established by the 'Addendum to the New England District Compensatory Mitigation Guidance: Compensation for Impacted Aquatic Resource Functions' (NAE-2006-3648) and NYSDEC Freshwater Wetlands Act (FWA), Article 24.

### **In-Lieu Fee Program Account**

Upon Corps approval of the DU-NY ILF program, DU will create an ILF project number for each service area and for each accepted compensatory project. The program account number will track deposits from the sale of credits and will be used for the selection, design, acquisition, implementation, monitoring, management and protection of DU-NY ILF program projects, and administrative costs for DU.

DU will establish and maintain a system for tracking the production of credits, credit transactions, and financial transactions between DU and permittees. Credit production, credit transactions, and financial transactions will be tracked by service area and separated for each project within the service area. DU's current tracking system allows for annual report ledgers as well as individual ledgers.

### **Long-term Protection and Management**

DU shall be responsible for developing and implementing a long-term protection and management plan for each ILF program project. On publicly-owned property, long-term protection and management may be provided through facility management plans or integrated natural resource plans. On privately-owned property, including property held by DU or other conservation organizations, real estate instruments shall be recorded to guarantee protection. DU will ensure that protection mechanisms are in place prior to release of credits. Draft conservation easements or equivalent protection mechanisms will be submitted to the IRT for review and Corps approval.

The DU-NY ILF mitigation projects will be designed to the maximum extent practicable, to require little or no long-term management efforts once performance standards have been achieved. DU shall be responsible for maintaining DU-NY ILF program projects consistent with the mitigation plan to ensure long-term viability as functional aquatic resources. DU shall retain responsibility unless and until the long-term management responsibility is formally transferred to a long-term manager with Corps approval. The long-term management plan developed for each DU-NY ILF program project will include a description of anticipated management needs with annual cost estimates and an identified funding mechanism (such as non-wasting endowments, trusts,



contractual arrangements with future responsible parties, or other appropriate financial instruments).

The final conservation easement or equivalent mechanism for long-term protection and management shall be submitted to the Corps and the IRT for review and approval prior to the final release of mitigation project credits. Upon achieving its performance standards and approved transfer of the project for long-term protection and management, DU will request that the Corps issue written "closure certification."

### Literature Cited

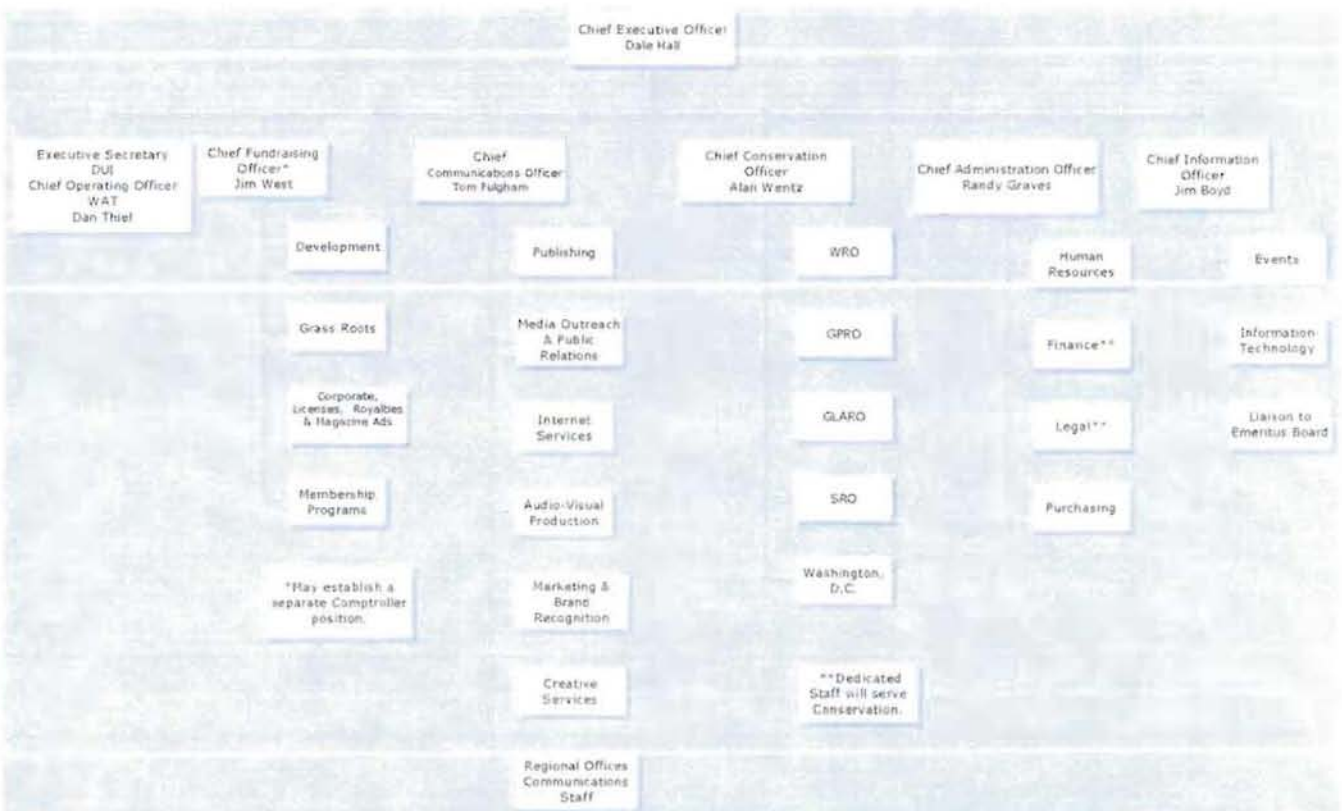
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Appendix I: Ducks Unlimited, Inc. National and Regional Organizational Charts.





**Appendix II: Sample Credit Sale Letter**

Buffalo District, Corps of Engineers  
Department of the Army  
Chief, Regulatory Division  
1776 Niagara Street,  
Buffalo, NY 14207

Date

RE: Statement of Receipt of Fee

PERMIT NUMBER(S)  
PERMITTEE  
PERMIT LOCATION (street, town)  
AUTHORIZED IMPACT ACREAGE  
AUTHORIZED IMPACT RESOURCE TYPE(S)

DU has a signed In-Lieu Fee agreement dated ????? with the US Army Corps of Engineers, Buffalo District, to establish and operate the DU NY In-Lieu Fee Program.

This letter confirms receipt of \$X for the above Corps-authorized project on [DATE].

By accepting this fee, DU is responsible for use of these funds, less the 15% administrative fee, to provide compensatory mitigation for the above-described impacts

DU representative signature

Date

Permittee signature

Date



**Appendix III :**  
**Example of current DU mitigation projects in NY**

- a) **Ashland Flat** – Restoration of emergent marsh and wet meadow
- b) **Fremont** – Restoration of scrub-shrub and emergent marsh
- c) **Point Peninsula** – Restoration of emergent marsh; protection of scrub-shrub habitat
- d) **South Butler** – Restoration of emergent and forested marsh; protection of forested wetlands
- e) **Tonawanda** – Restoration and enhancement of scrub-shrub and emergent marsh

DUCKS UNLIMITED



MITIGATION AND  
ECOLOGICAL SERVICES



MITIGATION PROJECT SPOTLIGHT:

CLIENT: **FEDERAL AGENCY**

MITIGATION LOCATION: **ASHLAND FLATS WILDLIFE  
MANAGEMENT AREA, JEFFERSON COUNTY, NY**

The goal of this wetland mitigation project was to restore and create 5.5 acres of wetland habitat to offset the impacts to 3 acres of existing wetlands in the Northeastern Lake Ontario - St. Lawrence - Indian River Watershed.

The ecological functions of the new wetland exceed the value of the impacted wetlands and add new habitat to the state wildlife management area. This wetland is part of the larger St. Lawrence River Valley Conservation Focus Area supported by multiple local, state and federal conservation agencies and organizations.



Ashland Flats WMA. Photo of construction phase (right) and completed project (above).



DUCKS UNLIMITED



MITIGATION AND  
ECOLOGICAL SERVICES



MITIGATION PROJECT SPOTLIGHT:

CLIENT: **WIND POWER DEVELOPER**

MITIGATION LOCATION: **PRIVATE LAND, STEUBEN COUNTY, NY**

In 2007, Ducks Unlimited (DU) developed a wetland mitigation project for several wind power projects in New York. DU worked with a private landowner to secure the mitigation site which is part of a larger parcel that is managed for wildlife. The new wetland and surrounding buffer provide wildlife habitat for species such as American woodcock, blue-winged warbler, brown thrasher, willow flycatcher, yellow-breasted chat, and blue-spotted/Jefferson salamander. The site selection and planning were guided by priorities set forth in local and regional conservation plans including the North American Waterfowl Management Plan.



Photos of the construction process (right)  
and the project with new plantings (large)



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MITIGATION AND  
ECOLOGICAL SERVICES

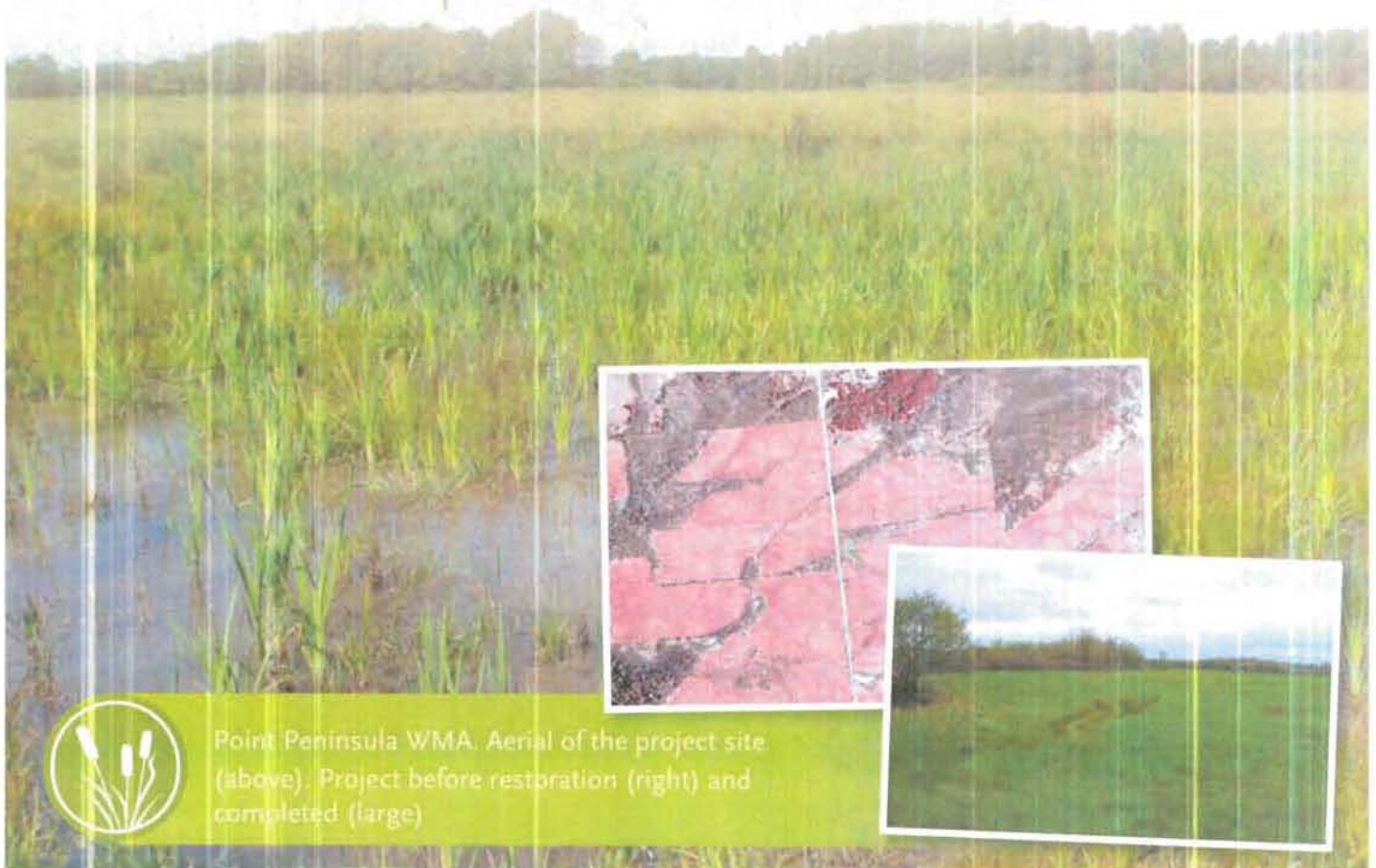


**MITIGATION PROJECT SPOTLIGHT:**

**CLIENT: NATIONAL HOME BUILDER**

**MITIGATION LOCATION: POINT PENINSULA WILDLIFE  
MANAGEMENT AREA, JEFFERSON COUNTY, NY**

The goal of the Point Peninsula wetlands mitigation project was to construct a 6.0 acre wetland habitat in the Northeastern Lake Ontario-St. Lawrence watershed to offset the impacts to 3.75 acres of existing wetlands in the same watershed. The six acres of mitigated wetlands included both a restoration and creation component. The completed project resulted in a mixture of palustrine emergent wetlands and palustrine system scrub-shrub wetlands. The new wetlands provide food chain support, breeding and migration habitat for migratory birds, breeding and over-wintering habitat for amphibians, and water quality improvements for surface outflow into the watershed.



Point Peninsula WMA. Aerial of the project site (above). Project before restoration (right) and completed (large)



DUCKS UNLIMITED



MITIGATION AND  
ECOLOGICAL SERVICES



MITIGATION PROJECT SPOTLIGHT:

CLIENT: **NATIONAL ENERGY COMPANY**

MITIGATION LOCATION: **NORTHERN MONTEZUMA WILDLIFE  
MANAGEMENT AREA, WAYNE COUNTY, NY**

A national energy company contracted Ducks Unlimited to restore 8 acres of wetlands and enhance 10 acres of wetlands in the Northern Montezuma Wildlife Management Area, which was once one of the largest wetland systems in the Northeast. The restored wetlands provide additional habitat for migratory birds traveling along the Atlantic Flyway. The site also provides breeding habitat for hundreds of wildlife species, including federal and state species of concern.



Northern Montezuma WMA. Aerial (above), under construction (right) and the completed marsh (large).



DUCKS UNLIMITED



MITIGATION AND  
ECOLOGICAL SERVICES



MITIGATION PROJECT SPOTLIGHT:

CLIENT: **NATIONAL RETAILER**

MITIGATION LOCATION: **TONAWANDA WILDLIFE  
MANAGEMENT AREA, GENESEE COUNTY, NY**

Ducks Unlimited (DU) was contracted by a national retailer to restore 12 acres of emergent marsh to offset impacts to wetlands in the same watershed. DU developed the new wetland by constructing a 1,700 feet of earthen dike that provided permanent water levels which covered abandoned agricultural fields. DU entered into a cooperative management agreement with the New York Department of Environmental Conservation to ensure long-term habitat management of the site. The project has successfully attracted migratory birds, provided new habitat for amphibians, and improved the water quality of an adjacent stream.



Tonawanda WMA. Photos of the construction process (right) and completed (large)