

Appendix Y  
8-Step Wetlands Analysis



**FLOODPLAIN AND WETLANDS 8-STEP PROCESS IN ACCORDANCE WITH  
EXECUTIVE ORDER 11988: FLOODPLAIN MANAGEMENT AND  
EXECUTIVE ORDER 11990: WETLANDS**

New York Governor's Office of Storm Recovery

Hempstead Lake State Park Project

Matt Accardi, Certifying Environmental Officer

December 11, 2019

The New York State Governor's Office of Storm Recovery ("GOSR") received a funding application from the New York State Department of Parks, Recreation and Historic Preservation (subgrantee) for the proposed Hempstead Lake State Park Project located in the Town of Hempstead, Nassau County, New York. The proposed project area encompasses Hempstead Lake State Park. The Park is located on the northern end of the Mill River watershed and includes the largest body of fresh water in Nassau County, namely Hempstead Lake, as well as several smaller ponds including: Northeast (NE) Pond; Northwest (NW) Pond; McDonald Pond; South Pond; and Schodack Pond. In addition to its water assets, the park also provides one of the largest continuous tracks of forested land present in southern Nassau County.

The Proposed Action consists of four (4) components intended to improve stormwater management, enhance natural ecosystems, provide connectivity among diverse populations, enhance safety, and promote education programs at the Park. The Proposed Project components are as follows: "Dams, Gatehouse and Bridges;" "Northwest and Northeast Ponds;" "Environmental Education and Resiliency Center;" and "Greenways, Gateways and Waterfront Access."

- The Dams, Gatehouses and Bridges component would restore the operation of the dams and associated water flow control infrastructure within the Park to improve stormwater management, include dam improvements to meet current regulatory standards, gatehouse repairs, and installation of pedestrian bridges over park water ways.
- The Northeast and Northwest Ponds component would involve the installation of floatables catchers and sediment basins at pond inlets, as well as creation of stormwater filtering wetlands and dredging of the ponds to remove debris, improve water quality and increase impoundment capacity.
- The Environmental Education and Resiliency Center component would comprise construction of a new, two-story, approximately 8,000-square-foot building west of Lakeside Drive. The focus of the Education and Resiliency Center would be on environmental stewardship, and climate change adaptation resiliency.
- The Greenways, Trails, Gateways and Waterfront Access component would comprise expansion and improvement to the existing path system within the park, including connection points to the surrounding neighborhoods, as well as installation of observation areas, piers, and kayak launches along Hempstead Lake.

This project must be conducted in accordance with conditions for federal actions in the floodplain as set forth in Presidential Executive Order (EO) 11988 (Floodplain Management),

EO 11990 (Protection of Wetlands), and the implementing regulation found at 44 CFR Part 9, Floodplain Management and Protection of Wetlands. These regulations apply to all Agency actions which have the potential to affect floodplains or wetlands or their occupants, or which are subject to potential harm by location in floodplains or wetlands.

Additionally, all HMGP grant-funded projects carried out in the floodplain or affecting the floodplain must be coordinated with the local floodplain administrator for floodplain development permit and the action must be undertaken in compliance with all relevant, applicable, and required local codes and standards and thereby will reduce the risk of future flood loss, minimize the impacts of floods on safety, health, and welfare, and preserve and possibly restore beneficial floodplain values as required by EO 11988.

### **Step ONE: Determine if proposal is in a floodplain or wetland.**

According to FEMA, Flood Insurance Rate Map (FIRM) panels 36059C0217G and 36059C0220G (effective September 11, 2009), the park is located within an area of minimal flood hazard, designated by FEMA as Zone X, which is outside of both the 1 percent and 0.2 percent annual chance floodplain. It is therefore not located within the 100-year or 500-year floodplain (see **Figure 55**).

NYSDEC-regulated wetland areas are associated with each of the waterbodies and vegetated wetlands in the project area. Each waterbody is a Class 1 wetland and identified as L-1, L-2, and L-3 (**Figure 58**).

Wetland assessments were conducted at the two northern ponds in fall 2016. NYSDEC staff conducted a wetland delineation at the NE and NW Ponds in May 2017 to establish the limit of NYSDEC-regulated wetlands in this portion of the project area. NYSDEC staff flagged wetland limits in the field, and Cashin Associates surveyed them. The field assessments indicate that there are more extensive vegetated wetlands associated with each pond than were included in the NWI mapping. An updated wetland delineation was completed in November 2018, and USACE issued a Jurisdictional Determination confirming the wetland limits in January 2019 (see **Appendix P**). Approximately 18.09 acres of emergent wetlands and 2.51 acres of scrub shrub wetlands are associated with NW Pond and 1.24 acres of emergent wetlands, 2.32 acres of scrub shrub wetlands, and 2.18 acres of forested wetland occur at NE Pond, for a total of 26.34 acres of vegetated wetlands. An additional 24.33 acres of open water wetlands are located at South Pond, although only a small portion of this would be affected by the project (see Step Four, below).

### **Step TWO: Involve public in decision-making process (notice).**

Because a portion of the Proposed Action would be located in a wetland, GOSR published an early notice that allows the public an opportunity to provide input into the decision to provide funding for the project activities in this area. The notice was published on June 15, 2016, and is included in **Appendix C**.

Public involvement occurred during the public outreach for the project and has occurred as part of the EA process. The New York State Office of Parks, Recreation and Historic Preservation has coordinated directly with NYSDEC to vet the design of the proposed wetland modifications, and GOSR has informed the U.S. Army Corps of Engineers of the proposed action in wetlands.

GOSR has consulted with the NYSDEC Natural Heritage Program, as well as with the USFWS Service, to determine project impacts to special-status species. Additionally, following completion of the detailed design process, GOSR would provide a copy of the EA to NYSDEC and USFWS and notify these regulatory agencies of GOSR's intent to modify land located in a wetland.

After the early public notice and comment period was complete, GOSR assessed, considered, and responded to the comments received individually and collectively for the project (see **Appendix A** and **Appendix B**), then proceeded to Step Three.

### **Step THREE: Determine if there is a practicable alternative.**

A design alternatives analysis was undertaken to develop a design that would achieve the goals of the project while minimizing impacts. See **Appendix X**. The No Action Alternative was analyzed to determine its practicability. No other alternatives were analyzed.

#### *No Action Alternative*

Under the No Action alternative, there would be no work undertaken on the dams, bridges, ponds, environmental education and resiliency center, or greenway and trails. There would be no impacts to existing wetlands. Floatables, sediment, and other pollutants would continue to accumulate in the Northern Ponds. There would be no loss of existing wetlands, nor restoration or creation of new wetlands. In addition, water levels at Hempstead Lake would not be seasonally managed by operation of the Hempstead Lake Dam sluice gates.

Moreover, the existing Hempstead Lake Dam and South Pond Dam would continue to deteriorate, and inspection for maintenance would not be possible due to the existing tree growth, which could necessitate eventual removal of the dams and associated adjustment in water levels. The breach in NW Pond Dam would continue to expand, lowering water levels upstream.

This alternative does not satisfy the Purpose and Need of the proposed action, which is to improve stormwater management, enhance natural ecosystems, provide connectivity among diverse populations, enhance safety, and promote education programs at the park.

### **Step FOUR: Identify adverse and beneficial impacts.**

The project would result in 2.76 acres of net wetland loss, including 1.00 acre of open water, 0.76 acres of emergent wetland, and 1.00 acres of scrub shrub wetland. **Table 9**, in the Project Description, provides a summary of net change by wetland type. It is repeated below. Most wetland impacts would occur in the NE and NW Ponds; however, repair of the South Pond Dam would result in the permanent loss of approximately 0.017 acre of open water. See **Appendix D** for the locations of all wetland impacts and **Appendix M** for a detailed table of wetland impacts.

An alternatives analysis and wetland functional assessment was prepared and is included in **Appendix X**. During the design process multiple design options for different aspects of the design were considered. The design options were developed through discussions with project partners, input from community members and feedback from field meetings with NYSDEC wetland representatives. Concepts were presented at public meetings and at meetings with the

NYSDEC. Designs were modified based on location, design concept, limitations and constraints and agency input. Upon USACE review of the Joint Permit application, as well as receipt of comments on the October 2018 EA from USEPA, USFWS, and UASCE, the team collaborated with these agencies to further refine the proposed design of the wetlands creation and rehabilitation in the NE and NW Ponds. The resulting project design further reduced the extent of construction and associated impacts.

**Table 9: Summary of Wetland Impacts Across All Project Components**

<b>Aquatic Resource Type</b>	<b>Wetland Loss Acres</b>	<b>Wetland Creation Acres (Table 9)</b>	<b>Net Loss Acres Adjusted for Created Wetlands</b>
Open Water	-1.07	+0.07	-1.00
Emergent Wetland	-0.85	+0.09	-0.76
Scrub Shrub Wetland	-1.00	0.00	-1.00
<b>Total</b>	<b>-2.92</b>	<b>+0.16</b>	<b>-2.76</b>

**Step FIVE: Mitigate adverse impacts.**

OPRHP prepared a draft compensatory mitigation proposal for review and comment by USACE. The proposal underwent a 30-day public review in Fall 2019 and is included as **Appendix O** to this EA. All of the mitigation sites are on-site and proximate to the wetlands and waters that will be impacted by the proposed project. Due to their proximity to the affected aquatic resources, these sites have a higher potential to offset the loss of functions associated with the affected wetlands and open waters. **Table 13** provides an analysis of the impacts of implementation of the draft compensatory mitigation proposal. It is repeated below.

The USACE review and response to the compensatory mitigation proposal is included in **Appendix O**. Of the 2.92 acres of total WOTUS loss, USACE as determined that compensatory mitigation is required for the loss of 1.849 acres of special aquatic sites. USACE has determined that a combination of Sites 1, 1a, 4, 5, 7, and 7a may be sufficient to replace lost aquatic functions resulting from project impacts.

Next, the conceptual mitigation sites would be advanced to develop a complete mitigation proposal that would include a design for each site, a description of the construction approach, planting plan, anticipated wetland functional improvements, and a post-construction monitoring and maintenance plan. Additional field studies would be required to prepare the mitigation proposal, including refining the limits of each mitigation site and the mitigation approach that would be employed. OPRHP would complete the final site selection in consultation with USACE.

**Table 13: Compensatory Mitigation Impacts**

<b>Mitigation Site</b>	<b>Impacts</b>
Site 1: Phragmites (Common Reed) Removal and Native Plant Establishment	Enhancing these wetlands would result in a gain in wetland functions for wildlife habitat and water quality.
Site 1a: Pond Margin Wetland Restoration	Reestablishing these former wetland areas would return the natural and historical functions to the former aquatic resource and result in an overall gain in wetland functions.
Site 2/3: Floatables & Sediment Discharge Control, Reduction, and Removal	Enhancing the wetlands and open waters would result in a gain in nutrient storage and transformation, water quality, and wildlife habitat functions by increasing the functional capacity for these functions through additional plant growth, plant-water interactions, soil biochemical processes, and wildlife foraging habitat. In addition, the enhancement would provide for the long-term protection of these improved functions.
Site 4: Invasive Plant Species Control and Prevention	Replacing and controlling invasive plant species with native plant species would result in an immediate gain in wetland functions for wildlife habitat and biodiversity, while long-term management of invasive plants would remove a current threat to the diverse wetlands habitat.
Site 5: Invasive Plant Removal, Floatables Removal, and Native Planting	<p>Enhancing the forested and emergent wetland under 5A and 5B would result in a gain in nutrient storage and transformation, water quality, biodiversity, and wildlife habitat functions through replacing the invasive plant species that dominate the area with native species and removing accumulated debris and trash.</p> <p>Restoring the wetland area associated with area 5C would result in the gain in aquatic resource area and functions through removing the dense layer of floatables and the restoration of wetland hydrology and native plant community.</p>
Site 7/7a: Debris/Floatables Removal in Pond Shoreline Wetlands	The wetland enhancement actions would result in a gain in wetland functions for water

Mitigation Site	Impacts
	<p>quality and wildlife habitat.</p> <p>The proposed restoration would result in a gain in aquatic resource area and functions.</p>
Site 8: Floatables Discharge Control	This project would protect the wetland enhancement and restoration gains obtained under Site 5 and Site 7/7a described above.

**Step SIX: Re-evaluate alternatives.**

GOSR has reevaluated the proposed action and determined that the Hempstead Lake State Park Project is still practicable considering its effects on wetlands. As indicated in Step 5, a Freshwater Wetlands Permit, Protection of Waters Permit and 401 Water Quality Certification from NYSDEC would be required to physically disturb the wetlands. Prior to construction, the project sponsor would be required to secure Clean Water Act Section 404 Authorization from USACE.

Following review and preliminary acceptance by the USACE, the conceptual mitigation sites will be advanced to develop a complete mitigation proposal that will include a design for each site, a description of the construction approach, planting plan, anticipated wetland functional improvements, and a postconstruction monitoring and maintenance plan. Additional field studies will be required to prepare the mitigation proposal, including refining the limits of each mitigation site and the mitigation approach that will be employed. Final site selection will be completed by OPRHP, in consultation with USACE.

In addition, offsetting measures incorporated into the project design will provide an overall ecological uplift to the NW and NE Pond areas, and substantially impact the short-term conditions and longterm functionality in the wetland areas, with associated benefits to water quality and wildlife habitats.

The public access components of this project will allow public use in areas of the park now essentially unavailable to the public, and provide substantial benefits to community value in terms of opportunities for passive recreation activities and health value. The ecological and wetland benefits will strengthen the area’s long-term resiliency to future storm events. Therefore, the project would result in long-term beneficial impacts to wetland quantity, quality, and function, as well as to associated habitat.

GOSR has also reconsidered the alternatives discussed in Step Three and determined the best practicable alternative is the proposed action. The No Action alternative is not practicable because it would not improve stormwater management, enhance natural ecosystems, provide connectivity among diverse populations, enhance safety, and promote education programs at the park. Although the No Action alternative would not result in the loss of wetlands or the temporary impacts to wetlands associated with construction, the No Action Alternative is not preferred because it would not improve the wetlands quantity, quality, and function, nor would it improve the associated habitats.

This section may be modified following public comment on the EA and this 8-step evaluation if substantive comments are received regarding wetland impacts.

**Step SEVEN: Announce and explain decisions to the public (notice).**

Step 7 requires that the public be provided with an explanation of any final decisions that the proposed action in a wetland is the only practicable alternative, potential impacts of the proposed action on wetlands, and associated mitigation measures. In accordance with 44 CFR 9.12, this notice is provided with the notice of availability of the EA for public review and comment.

The public would be provided a “Notice for Final Public Review of a Proposed Activity in a Wetland” either through the Notice of Availability of the EA or a standalone notice. Under each option, the public would have the opportunity to review and comment on the determination that the proposed action is practicable, and the potential impacts and mitigation measures.

**Step EIGHT: Implement proposal with appropriate mitigation.**

GOSR will ensure that this plan, as modified and described above, is executed and that necessary language is included in all agreements with participating parties. Further, GOSR will see that all mitigation measures described in Step 5 of this 8-step review and in the EA will be implemented.