DRAFT WETLAND MITIGATION PLAN
MILL POINT SOLAR I PROJECT
(Matter No. 23-00034)

TOWN OF GLEN
MONTGOMERY COUNTY, NEW YORK

Prepared For:

Mill Point SOLAR I PROJECT

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Appendix 14-4

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TABLES

ACRONYMS AND ABBREVIATIONS

AA	State-regulated adjacent area
Applicant	ConnectGen Montgomery County LLC
Application	94- Permit Application
Facility	Mill Point Solar I Facility
FWW	Freshwater wetland
GPS	Global positioning system
JD	jurisdictional determination
MW	Megawatt
NYSDEC	New York State Department of Environmental Conservation
O&M	operations and maintenance
ORES	Office of Renewable Energy Siting
PEM	Palustrine emergent
PFO	Palustrine forested
Plan	Draft Conceptual Wetland Mitigation Plan
POI	point of interconnection
Project	Mill Point Solar I Facility
PSS	Palustrine scrub-shrub
PUB	Palustrine unconsolidated bottom
PV	Photovoltaic
TWT	The Wetland Trust
USACE	United States Army Corps of Engineers
WMRP	Wetland Mitigation Remedial Plan

1.0 Introduction

This Draft Conceptual Wetland Mitigation Plan (Plan) has been developed by TRC on behalf of ConnectGen Montgomery County LLC (Applicant) for the Mill Point Solar I Facility (Facility or Project). The Plan was prepared as part of the Section 94-c application to the Office of Renewable Energy Siting (ORES) to compensate for permanent impacts to State jurisdictional freshwater wetlands (FWW) and associated 100-foot regulated adjacent areas (AA) resulting from Facility construction. The Applicant's Facility layout and design resulted from careful considerations to avoid and minimize impacts to aquatic resources. Facility construction will result in 1.6796 acres of permanent impacts to State jurisdictional wetlands and AAs. This Mitigation Plan describes the tabulated impacts, required mitigation, and potential wetland mitigation activities to compensate for these impacts. The final Wetland Mitigation Plan will contain the selected mitigation site(s) which will be identified following discussions with landowners and ORES.

Proposed wetland restoration and mitigation measures are provided herein; the level of detail is conceptual and will be updated as part of a Final Wetland Restoration and Mitigation Plan to be submitted prior to construction as a pre-construction compliance filing, in accordance with § 900-10.2(f) of the 94-c regulations.

1.1 Project Description

ConnectGen Montgomery County LLC is proposing to construct the Mill Point Solar I Project in the Town of Glen, Montgomery County, New York (Facility Site). The Project will be a utility-scale solar facility capable of generating 250 megawatts (MW) of photovoltaic (PV) renewable energy. Proposed facility components include solar arrays, access roads, inverters, buried electrical collection lines, an overhead gen-tie line, two overhead transmission lines, two generation tie line utility poles, an operations and maintenance (O&M) building, substation, point of interconnection (POI) switchyard, fencing, and temporary laydown yards. The Applicant intends to construct, own, operate, and maintain all components of the Facility, aside from the POI Switchyard which will be transferred to National Grid's ownership upon completion.

2.0 Unavoidable Impacts To State-Regulated Wetlands And Adjacent Areas

Exhibit 14 of the 94-c application documents the avoidance and minimization measures taken into consideration when designing the Facility. The Facility was designed to avoid permanent impacts to wetlands and State-regulated Adjacent Areas (AA) to the maximum extent practicable. However, certain construction activities must occur within State-regulated wetlands and AAs which will result in unavoidable permanent impacts to these features. One State-regulated wetland (TRC delineated wetland W-NSD-01) and its regulated 100-foot AAs is unavoidable and expected to be impacted by construction activities. These wetlands correspond to State-mapped wetland TH-17. Three additional State-regulated wetland 100-foot AAs (W-KCF-13, W-KCF-15 and W-NSD-20) are unavoidable and are expected to be impacted by construction activities. Certain permanent impacts associated with construction activities are expected to occur within the 100-foot AA of wetlands W-KCF-13, W-KCF-15, W-NSD-01, and W-NSD-20 that will not require mitigation according to Section 900-2.15, Table 1, due to the impact location outside of the 75-foot setback from the wetland edge since certain impacts ORES does not require mitigation for if located outside of the 75-foot buffer. Table 1 summarizes the impacted features, the impact types, and acreage of each impact.

Table 1. Anticipated Project Impacts to State-Regulated Wetlands and Adjacent Areas

NYSDEC Wetland ID[1]	Class[2]	TRC Wetland ID	Cover Type[3]	Project Component/ Impact	94-c Feature Activity	Impact Measurement (sq. ft.)			Impact Measurement (Acres)		
						Wetland	100-ft Adjacent Area	75-foot Adjacent Area[4]	Wetland	100-ft Adjace-nt Area	75-foot Adjacent Area[4]
TH-17	II	W-KCF-13	PEM	Access Road[5]	Access Road	-	4,970.206	2,069.100	-	0.1141	0.0475
				Collection trench	Power interconnections (including clearing for interconnection)	-	5,458.068	4,116.420	-	0.1253	0.0945
				Fence line 1ft	Security Fence	-	252.648	182.952	-	0.0058	0.0042
				HDD Bore Pits	Power interconnections (including clearing for interconnection)	-	487.872	487.872	-	0.0112	0.0112
				Landscaping	N/A	-	7,217.892	5,048.604	-	0.1657	0.1159
TH-17	II	W-KCF-15	PEM	Landscaping	N/A	-	1,598.652	-	-	0.0367	-

NYSDEC Wetland ID[1]	Class [2]	TRC Wetland ID	Cover Type[3]	Project Component/ Impact	94-c Feature Activity	Impact Measurement (sq. ft.)			Impact Measurement (Acres)		
						Wetland	100-ft Adjacent Area	75-foot Adjacent Area[4]	Wetland	100-ft Adjace-nt Area	75-foot Adjacent Area[4]
TH-17	II	W-NSD-01	PEM/PSS	Fence Line 1ft	Security Fence	-	26.136	-	-	0.0006	-
				Grading Limits	Power interconnections (including clearing for interconnection)	-	6,965.244	3,293.136	-	0.1599	0.0756
				POI switchyard	Power interconnections (including clearing for interconnection)	-	331.056	-	-	0.0076	-
				Timber Mat Protective Pathway	Access Road	3,044.8440	-	-	0.0699	-	-
				Poles	Power interconnections (including clearing for interconnection)	-	439.956	439.956	-	0.0101	0.0101
				Access Road	Access Road	-	13,355.496	8,459.352	-	0.3066	0.1942
				Clearing[6]	Power interconnections (including clearing for interconnection)	-	20,773.764	17,916.228	-	0.4769	0.4113

NYSDEC Wetland ID[1]	Class [2]	TRC Wetland ID	Cover Type[3]	Project Component/ Impact	94-c Feature Activity	Impact Measurement (sq. ft.)			Impact Measurement (Acres)		
						Wetland	100-ft Adjacent Area	75-foot Adjacent Area[4]	Wetland	100-ft Adjace-nt Area	75-foot Adjacent Area[4]
				Clearing and Grubbing	Power interconnections (including clearing for interconnection)	-	5,584.392	3,484.800	-	0.1283	0.0800
Unmapped	N/A	W-NSD-20	PEM/PUB	Grading Limits	Other activities integral to the project involving grading	-	17.424	-	-	0.0004	-
				Landscaping	N/A	-	2,635.38	-	-	0.0605	-
				Clearing and Grubbing	Clearing of Forest	-	13.068	-	-	0.0003	-

[1] Unmapped wetlands do not have a NYSDEC ID.

[2] The NYSDEC designates wetlands into four class ratings, with Class I being the highest and Class IV being the lowest. Unmapped NYSDEC wetlands do not have class ratings.

[3] Wetland cover types are palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and palustrine unconsolidated bottom (PUB).

[4] The area in the 75-foot buffer is a subset of the area within the 100-foot buffer. These areas should not be summed.

[5] Access Road impacts include grading associated with Access Roads.

[6] Within this acreage of clearing in the AA of W-NSD-1, 0.0422 acre will be a temporary protective pathway using a timber mat.

2.1 Functions and Values

The USACE developed a supplement to the *Highway Methodology Workbook* entitled *Functions and Values: A Descriptive Approach* (Supplement) (USACE, 1999) to collect and describe the functions and values assessment of wetlands in a measurable and unbiased perspective. Functions and Values pertaining to wetlands within the Facility Site are summarized in Exhibit 14 of the 94-c application and the associated Mill Point Solar I Wetlands Functions and Values Assessment (Exhibit 14, Appendix 14-3). Wetlands that are expected to be impacted by Facility construction are mostly associated with State-regulated Class II wetland TH-17. This wetland exists mostly in a forested block surrounded by agriculture fields and associated farm buildings and residences. Historic imagery from Google Earth dating to 1985 show that the forest containing most of the wetland has remained relatively unchanged and that the surrounding land was consistently used for agriculture. TRC delineated wetlands W-KCF-13, W-KCF-15, and W-NSD-01 correspond to a New York State Department of Environmental Conservation (NYSDEC) wetland TH-17 and are therefore considered State jurisdictional as an extension of TH-17. Wetland W-NSD-20 is contiguous with an offsite wetland greater than 12.4 acres and is State jurisdictional per the jurisdictional determination (JD) provided by ORES on January 10, 2022. Functions for these wetlands include groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, nutrient removal/retention/transformation. Wetland values include recreation, educational/scientific value, uniqueness/heritage value, visual quality/aesthetics, and endangered species habitat.

2.2 Mitigation Requirements

As stated above, anticipated impacts to State jurisdictional wetlands and their AAs that will require mitigation include 0.0699 acres of wetlands and 1.6097 acres of AAs. Mitigation requirements for the proposed impacts were determined through review of Section 900-2.15(g) of the Section 94-c regulations examination of the overall impact acreage and the current condition and class of impacted wetlands and AAs. Impacted wetlands W-KCF-13, W-KCF-15, and W-NSD-01 correspond to State-regulated FWW TH-17. NYSDEC wetland TH-17 is a Class II wetland, and mitigation ratios and requirements are outlined in Section 900-2.15(g) of the 94-c regulations and below in Table 2. This will result in a need for 1.0642 acres of mitigation. Wetland W-NSD-20 is Unmapped and does not have a NYSDEC Class rating. ORES regulations allow proposed project activities within Unmapped wetland AA without requiring mitigation. Table 3 below details the mitigation required for each impacted wetland feature. AA impacts that occur within a distance

greater than or equal to 75-foot from the wetland edge do not require mitigation, where stated by ORES.

Per Section 900-2.15(g) of the 94-c regulations, mitigation categories are defined as follows:

a) X: Not an allowable feature or activity.

b) A: Allowed; no mitigation or enhancement required.

c) A(M1): Allowed, mitigation required (3:1 mitigation ratio by area of impact - creation only, broken down by covertype).

d) A(M2): Allowed, mitigation required (2:1 mitigation ratio by area of impact - creation, restoration, and enhancement).

e) A(M3): Allowed, mitigation required (1:1 mitigation ratio by area of impact – creation, restoration, and enhancement).

f) A(E): Allowed, enhancements and/or mitigation required (e.g., planting of adjacent area, mitigating hydrological changes).

ORES defines creation, enhancement, and restoration as the following:

a) Creation, in cases of activities requiring fill, means making a new wetland or expanding an existing wetland in lands that were not previously occupied by a wetland. Creation, in cases of activities not requiring fill, can include planting trees and/or shrubs in an existing wetland currently devoid of trees and shrubs.

b) Restoration means reclaiming a degraded wetland or adjacent area to bring back one or more functions that have been partially or completely lost.

c) Enhancement means altering an existing functional wetland or adjacent area to increase selected functions and benefits that offsets losses of these functions or benefits in another wetland or adjacent area or parts of the same wetland or adjacent area.

Table 2. ORES Wetland Mitigation Requirements

	Class I		Class II		Class III & IV Unmapped >12.4 Acres	
Feature/Activity	**FWW**	**AA**	**FWW**	**AA**	**FWW**	**AA**
Major Activities						
Solar Panels	X	A(AE)**	A(M2)	A(E)*	A(M3)	A
Energy Storage	X	A(M3)**	X	A(E)*	A(M3)	A
Access Roads	A(M1)	A(E)*	A(M2)	A(E)*	A(M3)	A
Power interconnections (including clearing for interconnections)	A(M1)	A(E)*	A(M2)	A(E)*	A(M3)	A
Clearing of forest	X	A(M3)**	A(M2)	A(E)*	A(M3)	A
Other activities and structures integral to the project involving placement of fill	X	A(M3)**	A(M2)	A(E)*	A(M3)	A
Intermediate Activities						
Security fence	X	A(E)*	A(M3)	A	A	A
Clearing and manipulation of undisturbed herbaceous vegetation	X	A(E)*	A(M3)	A	A(M3)	A
Other activities integral to the project involving grading	X	A(E)*	A(M3)	A	A(M3)	A
Minor Activities						
Grading and manipulation of disturbed areas (active hay/row crops, existing commercial/industrial development)	X	A(E)*	A(M3)	A	A(E)	A
Selective cutting of trees and shrubs	A	A	A	A	A	A

*No enhancements or mitigation required with 75 foot or more setback
** 75-foot setback from wetland boundary required in undisturbed adjacent area
FWW = Freshwater wetland; AA = Adjacent Area

Table 3. Total Project Wetland Mitigation Calculations

94-c Feature/ Activity	Class II Wetland								
	Project Component/ Impact	Acreage			Mitigation Ratio		Required Mitigation		Total Required Mitigation (Acres)
		Wetland	100-foot Adjacent Area	75-foot Adjacent Area[2]	Wetland[1]	100-foot Adjacent Area	Wetland (Acres)	100-foot Adjacent Area (Acres)	
Clearing of Forest	Clearing (permanent)	0	0.0003	0	A(M2)	A(E)*; 1:1	0	0	0
Access Roads[4]	Access Road	0	0.4207	0.2417	A(M2); (2:1).	A(E)*; 1:1	0	0.2417	0.2417
Access Road	Temporary Timber Mat	0.0699	[5]	[5]	A(M2); (2:1).	A(E)*; 1:1	0.1398	[5]	
Power interconnections (including clearing for interconnections)	Collection Trench	0	0.1253	0.0945	A(M2); (2:1).	A(E)*; 1:1	0	0.0945	0.0945
	POI	0	0.0076	0	A(M2); (2:1)	A(E)*; 1:1	0	0	0
	Clearing (permanent)		0.4769	0.4113	A(M2); (2:1).	A(E)*; 1:1	0	0.4113	
	Transmission Line Placement	0	0.0101	0.0101	A(M2); (2:1).	A(E)*; 1:1	0	0.0101	0.0101
	Clearing and Grubbing	0	0.1283	0.0800	A(M2); (2:1).	A(E)*; 1:1	0		
	HDD	0	0.0112	0.0112	A(M2); (2:1).	A(E)*; 1:1	0	0.0112	0.0112

94-c Feature/ Activity	Class II Wetland								
	Project Component/ Impact	Acreage			Mitigation Ratio		Required Mitigation		Total Required Mitigation (Acres)
		Wetland	100-foot Adjacent Area	75-foot Adjacent Area[2]	Wetland[1]	100-foot Adjacent Area	Wetland (Acres)	100-foot Adjacent Area (Acres)	
	Grading around the POI Switchyard	0	0.1599	0.7552	A(M2); (2:1).	A(E)*; 1:1	0	0.0756	0.0756
Security Fence	Fence line	0	0.0065	0.0042	A(M3)	A	0	0	0
N/A	Landscaping	0	0.2628	0.1159	A	A	0	0	0
Totals[5]		**0.0699**	**1.6097**	**1.0445**	**N/A**	**N/A**	**0.1398**	**0.9244[3]**	**1.0642**

[1] Mitigation requirement: A(E): Allowed, enhancements and/or mitigation required (e.g., planting of adjacent area, mitigating hydrological changes); A: Allowed; no mitigation or enhancement required. * No enhancements or mitigation required with 75 foot or more setback. creation, restoration, and enhancement); A(M3): Allowed, mitigation required (1:1 mitigation ratio by area of impact – creation, restoration, and enhancement)

[2] The area in the 75-foot buffer is a subset of the area within the 100-foot buffer. These areas should not be summed.

[3] The 0.9244 acres of mitigation is required for impacts to AA.

[4] Access Road impacts include grading associated with Access Roads.

[5] Within the AA, there will be an acreage, 0.0422 acre of impact from a temporary protective pathway using a timber mat, this impact is incorporated into the clearing impact calculation.

3.0 Mitigation Site

3.1 Site Selection

The selected final Project-specific mitigation and monitoring sites will be identified in the Final Wetland Restoration and Mitigation Plan that will be developed prior to the start of construction activities and submitted as part of the pre-construction filings. A combination of field and desktop analysis will be conducted to evaluate potential mitigation sites. The selection of a mitigation site(s) will be based on the following criteria:

- Includes State-regulated wetlands and associated 100-foot AA (particularly palustrine emergent (PEM) and palustrine scrub-shrub (PSS) wetland covertypes, which may provide for more mitigation opportunities than palustrine forested (PFO) wetlands);
- Is adjoining or directly adjacent to the same State-regulated wetlands that are being impacted;
- Is currently subject to anthropogenic disturbance (i.e., degraded state in need of restoration/enhancement);
- Wetland or 100-foot AA can be enhanced without disturbing other existing sensitive resources (e.g., forest vegetation or agricultural practices);
- Suitable access for mitigation activities and subsequent monitoring;
- The landowner is agreeable to allowing mitigation activities and future conservation easements on their property;
- Feasibility of construction;
- Overall costs;
- Technical requirements and logistics;
- Ecological sustainability; and
- Practicability for long-term monitoring and maintenance.

If Facility Site parcels are determined to be undesirable or not suitable for wetland mitigation, offsite mitigation within the same watershed may be used as an alternative.

The selected mitigation sites will be further explored and characterized in the Final Wetland Restoration and Mitigation Plan which will contain the following information:

- A description of the selected wetland mitigation site or sites, including information on soils, vegetation, topography, and proximity to NYSDEC-regulated wetlands;

- Details on the proposed mitigation action, including the area of wetland creation, enhancement, or restoration, as well as vegetative cover types that will be established;
- A preliminary site plan showing existing and proposed contours and vegetative plantings; and
- A wetland mitigation monitoring program to ensure the success of the mitigation action and establish corrective actions if required.

In accordance with Section 900-10.2(f), the Final Wetland Restoration and Mitigation Plan will be submitted to ORES for review and approval prior to the start of construction.

A desktop analysis was performed to identify parcels within the Facility Site that could potentially be suitable for wetland mitigation. The analysis consisted of a review of the NYSDEC Environmental Resources Mapper (ERM), which displays wetland and waterway features under State jurisdiction, the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), Federal Emergency Management Agency (FEMA) floodplain maps, watershed maps for the Mohawk watershed where the Facility is located, U.S. Geological Survey (USGS) topographical mapping, Natural Resources Conservation Service (NRCS) soil survey mapping, and mapping data collected by TRC within the Facility Site.

Wetland and waterbody delineations were conducted within the Wetland Survey Area (WSA), which is inclusive of the 2,665-acre Facility Site, during the growing seasons of 2020, 2021, and 2022. Wetland boundaries were determined using the criteria described in the *Corps Wetland Delineation Manual* (Environmental Laboratory 1987) (Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement* (USACE 2012) (Supplement). Boundaries of freshwater wetlands regulated under Article 24 of the New York Environmental Conservation Law were delineated according to methods described in the *New York State Freshwater Wetlands Delineation Manual* (NYSDEC 1995). Data was collected from a sample plot in each delineated wetland that included the dominant vegetation, hydric soil indicators, and wetland hydrology indicators.

Proposed mitigation measures will be designed to replace, or in some instances increase, the impacted wetland acreage and result in no net loss of wetland functions and values. Restoration and creation activities typically reestablish one or more of the wetland functions that were lost due to permanent wetland impacts from Facility construction. Generally, the functions and values of

the replacement or enhanced wetlands are assumed to be the same as that of the impacted wetland.

Table 4 below details parcels within the Facility Site that have the potential for use as mitigation sites to compensate for permanent impacts to State jurisdictional wetlands and their associated AA. The table contains information on vegetation, hydrologic conditions, soil conditions, and current land usage for each parcel evaluated. The primary functions and values of each delineated wetland within the parcel, if any exist, are listed for each of the potential mitigation parcels. Additional information on wetlands is available in the Wetland Functions and Values Assessment included as Appendix 14-3 of the 94-c application.

The parcels listed in Table 4 as potential mitigation sites should be considered conceptual and their suitability may change dependent on a more detailed review. Selected sites will be outlined in greater detail in the Final Wetland Restoration and Mitigation Plan.

Table 4. Potential Mitigation Sites Within the Facility Site

Potential Mitigation Parcel	Delineated Wetlands				Vegetation		Hydrology		Soils		Surrounding Land Cover		
	Wetland ID	Wetland Size[1]	Acres Within Parcel	Functions and Values	Wetland Covertype(s)[2]	Invasive Species (Y/N)	Streams in Wetland[3]	Standing Water (Y/N)	Hydric Soils (Y/N)	Soil Texture	Adjacent to Upland Forest (Y/N)	Adjacent to Agriculture/ Developed Land (Y/N)	Primary Ecological Communities
67.-1-7	W-MLM-07	Medium	2.30	Groundwater Recharge/Discharge; Flood Flow Alteration; Sediment, Toxicant Retention; Nutrient Removal/Retention/Transformation; Production Export; Sediment/Shoreline Stabilization; Wildlife Habitat; Recreation; Visual Quality/Aesthetics	PEM	N	R5	N	Y	Silty clay loams, mucky clay loams	N	Y	Cropland/row crops, Successional shrubland, Shallow emergent marsh
52.-1-22.1	W-NSD-84	Large	41.45	Groundwater Recharge/Discharge; Flood Flow Alteration; Sediment, Toxicant Retention; Nutrient Removal/Retention/ Transformation; Production Export; Sediment/Shoreline Stabilization; Wildlife Habitat; Recreation; Visual Quality/Aesthetics	PEM	Y	R2	N	Y	Silty clay loams, clay loams	Y	Y	Cropland/row crops, Shallow emergent marsh
68.-1-29.12	W-CIW-02	Small	0.86	Groundwater Recharge/Discharge; Flood Flow Alteration; Sediment, Toxicant Retention; Nutrient Removal/Retention/Transformation; Production Export; Wildlife Habitat; Visual Quality/Aesthetics	PEM/PUB	Y	-	Y	Y	Silt loams, Silty clay loams	N	Y	Cropland/field crops, Farm pond/artificial pond,

Potential Mitigation Parcel	Delineated Wetlands				Vegetation		Hydrology		Soils		Surrounding Land Cover		
	Wetland ID	Wetland Size[1]	Acres Within Parcel	Functions and Values	Wetland Covertype(s)[2]	Invasive Species (Y/N)	Streams in Wetland[3]	Standing Water (Y/N)	Hydric Soils (Y/N)	Soil Texture	Adjacent to Upland Forest (Y/N)	Adjacent to Agriculture/ Developed Land (Y/N)	Primary Ecological Communities
	W-CIW-03	Small	1.06	Groundwater Recharge/Discharge; Flood Flow Alteration; Sediment, Toxicant Retention; Nutrient Removal/Retention/Transformation; Production Export;	PEM	N	-	N	Y	Silt loams, Silty clay loams	N	Y	Cropland/field crops, Cropland/row crops
	W-CIW-04	Small	0.81	Groundwater Recharge/Discharge; Flood Flow Alteration; Sediment, Toxicant Retention; Nutrient Removal/Retention/Transformation; Production Export	PEM	N	-	N	Y	Silt loams, Silty clay loams	N	Y	Cropland/field crops, Cropland/row crops

[1] Small (0-1 acre), Medium (1-5 acres), Large (5+ acres)
[2] Wetland community types are based upon the Cowardin et al. (1979) classification system: PUB = palustrine unconsolidated bottom , PEM = palustrine emergent, PFO = palustrine forested, and PSS = palustrine scrub-shrub
[3] Based on delineation of streams classified as R2 = lower perennial stream, R3 = upper perennial stream, R4 = intermittent stream, R5 = unknown perennial, riverine.

If onsite wetland mitigation is not a viable option, the final compensatory option according to 94-c regulations involves purchasing wetland credits from an existing wetland bank within the same HUC-8 watershed. Programs such as The Wetland Trust (TWT) and the Ducks Unlimited New York In-Lieu Fee programs sell mitigation credits for permitted wetland impacts throughout New York State. Through these credit programs, the organization or entity that the credit is purchased from assumes the responsibilities on behalf of the Applicant for implementing wetland restoration activities. These projects have the potential to offer greater ecological benefits than isolated Applicant-responsible mitigation efforts because the credit payments finance larger projects that contribute to larger conservation goals (Ducks Unlimited, 2023).

Currently, TWT sells wetland credits for the Mohawk watershed at $98,022 per credit (TWT, 2023). Should onsite mitigation prove to not be a feasible option, the Applicant will evaluate the viability of purchasing wetland mitigation bank credits in lieu of the onsite Wetland Mitigation Plan through coordination with ORES.

4.0 Performance Standards

Performance standards can be defined as observable or measurable physical, chemical, and/or biological attributes that are used to determine if a compensatory mitigation project is meeting its objectives. Based on the final mitigation details, the Applicant will develop performance standards to evaluate effectiveness in achieving the objectives of the proposed wetland and 100-foot AA mitigation activities. These performance standards will be outlined in the Final Wetland Restoration and Mitigation Plan.

The mitigation site(s) will be monitored annually for a minimum of five years after measures have been implemented. Mitigation success shall be measured based on the following criteria:

- Completion of grading and reseeding in accordance with the approved plans and specifications;
- Stabilization of all disturbed soils within the wetland restoration area;
- 80% native woody plant survivorship, or 85% absolute areal coverage by native herbaceous species with the appropriate wetland indicator status being established over all portions of the replanted area;
- All three criteria of a wetland are met on the USACE plot data form for the plot conducted within the Mitigation Site; and
- Invasive plant species will not exceed 20% during the first year of monitoring and 10% each following year.

5.0 Monitoring

Since wetlands evolve and change in response to their surrounding environment, a monitoring and adaptive management program will be implemented for five years as part of the Plan. The monitoring program will determine if the chosen Mitigation Site is developing in a manner that meets or exceeds the overall goals and objectives of the Plan. The monitoring plan will also serve to identify any potential problems (e.g., invasive species, erosion and sedimentation, poor vegetation growth success) early on so that remedial actions can be taken.

Prior to the initial creation of the wetland and during the growing season, an initial survey will be conducted to document existing conditions and set a baseline for monitoring. This survey will be collected via United States Army Corps of Engineers (USACE) plots – one within the existing wetland, one at the proposed Mitigation Site, and one within the adjacent upland area to the proposed Mitigation Site.

For five years following the initial creation of the wetland Mitigation Site, an annual survey will be performed during the growing season and data from the same USACE plots will be collected (one within the original wetland, one within the created wetland, and one within the adjacent upland area) to compare to the post-mitigation survey.

5.1 Monitoring Report

Conditions observed throughout the wetland Mitigation Site will be summarized in the annual monitoring report along with any necessary recommendations for remedial measures such as replanting dead vegetation, controlling invasive species or noxious weeds, and stabilizing un-vegetated or eroding soil. Data collected during monitoring visits will be summarized and presented in the monitoring report.

The monitoring reports submitted on behalf of the Applicant will contain the following:

- Descriptions of any remedial actions done during the monitoring year, including a summary of all invasive species management activities conducted throughout the year and figures showing their remaining extent throughout the mitigation area;
- Photograph log containing time-lapse photographs taken from established vantage points throughout the mitigation area;
- Sub-sample (approximately 10% of planted zones) vegetation plot data to document survival of planted material and percent cover;

- Comprehensive list of plant species identified within vegetation plots;
- Results of both field reconnaissance over the entire mitigation area and the average measured vegetation cover within sampling plots demonstrating that above Success Standards have been achieved;
- General health and vigor of the surviving plants, the prognosis for their future survival and a diagnosis of the cause(s) of morbidity or mortality, and recommendations for project success;
- Incidental observations of all breeding birds and other wildlife species; and
- Any additional recommended remedial measures to achieve or maintain achievement of the Success Standards including anticipated remedial actions to be taken. These may be taken in the non-growing season.

A monitoring report will be submitted to ORES no later than December 31st each year monitoring is performed. The data collected within the report will be compared to the performance and health standards for vegetation planting, soil character, and hydrology. The report will include the development of vegetative communities and the condition of seedlings, which includes survivorship and any potential causes for plant mortality.

The mitigation area will be delineated annually to evaluate the extent of the mitigation efforts that qualify as wetland. Delineations will be conducted early in the growing season each monitoring year (April-June) and wetland boundaries will be recorded with a GPS unit to quantify wetland acreage with sub-meter accuracy.

If the performance standards of the mitigation site are not achieved after the five-year monitoring period and if ORES determines the Mitigation Plan goals have not been met, then a Wetland Mitigation Remedial Plan (WMRP) will be developed. This remedial plan will address the corrective actions needed to achieve the original mitigation goals and the schedule for conducting the remediation activities. Once the remedial plan is approved, it will be implemented according to the schedule.

5.2 Adaptive Management

In response to observations made through monitoring, actions may need to be taken to respond to current conditions (i.e., adaptive management). The monitoring reports will describe current conditions and any deficiencies at the Mitigation Site and will recommend remedial measures.

The effectiveness of any corrective actions will be evaluated during subsequent monitoring and will be reported in the monitoring report. The monitoring report will recommend any changes to the monitoring schedule that may be necessary following the identification of deficiencies and the implementation of corrective measures.

The following table addresses common post-construction problems that may occur on the wetland Mitigation Site and typical corrective measures.

Table 5. Potential Corrective Measures for the Wetland Mitigation Site

Potential Problem Areas	Typical Corrective Measures
Introduction or spread of invasive species	Manual, mechanical, biological, or chemical control
Mortality of vegetation	Assess hydrology; supplemental reseeding
Erosion or sedimentation	Stabilize soils; install erosion and sediment controls as necessary

5.3 Proposed Timeline

The proposed wetland mitigation will follow the timeline as outlined in the table below.

Table 6. Proposed Mitigation and Monitoring Timeline

Year	Timeframe	Activities
0	Growing season, initial year	Pre-mitigation survey
		Creation of wetland (grading and reseeding)
1	Growing season Year One	Perform monitoring and any corrective actions
	End of Calendar Year	Submit annual monitoring report
2	Growing season Year Two	Perform monitoring and any corrective actions
	End of Calendar Year	Submit annual monitoring report
3	Growing season Year Three	Perform monitoring and any corrective actions
	End of Calendar Year	Submit annual monitoring report
4	Growing season Year Four	Perform monitoring and any corrective actions
	End of Calendar Year	Submit annual monitoring report
5	Growing season Year Five	Perform monitoring and any corrective actions
	End of Calendar Year	Submit annual monitoring report

At the end of year five, it is anticipated that the goals and objectives of the Wetland Mitigation Plan will have been met and the resulting annual report will document this conclusion, and no further corrective actions, monitoring, or reporting requirements will apply.