ConnectGen Chautauqua County LLC
South Ripley Solar Project
Matter No. 21-00750

900-2.15 Exhibit 14

Supplement 2

Wetlands

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EXHIBIT 14 WETLANDS

(a) Map Showing Jurisdictional Boundaries of Delineated Wetlands

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) identified all wetlands and streams at the Facility Site through on-site field investigations on participating parcels where property access was available. Wetland boundaries were approximated for areas within 100-feet from the limit of disturbance (i.e., Wetland Study Area) where the Applicant did not have on-site access. See Exhibit 14(d) below for more information on off-site wetland analysis. Field delineations were conducted between late June through September 2020. The identification of wetland boundaries was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). Determination of wetland boundaries was also guided by the methodologies presented in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (USACE, 2012), the *New York State Freshwater Wetland Delineation Manual* (NYSDEC, 1995), and in consultation with the Office of Renewable Energy Siting (ORES) as outlined below. Maps showing locations of the on-site field delineations are depicted in Figure 14-1 and presented in more detail in the Wetland and Stream Delineation Report (Appendix 13-C).

On behalf of the Applicant, EDR coordinated with TetraTech, who was retained by ORES, to conduct site visits to review the boundaries of delineated features in support of determining state jurisdictional status of the wetlands and streams within the Facility Site. As a result of this process and the associated consultations conducted in accordance with §900-1.3(e), a final jurisdictional determination was issued by ORES on April 19, 2021, which identifies specific jurisdictional determinations for state-regulated wetlands (Appendix 14-A).

The Applicant is currently consulting with the U.S. Army Corps of Engineers (USACE) to determine federal jurisdiction of delineated wetlands.

(b) Wetland and Stream Delineation Report

As indicated above, the results of the on-site field delineations are documented in the Wetland and Stream Delineation Report (Appendix 13-C). The identification of wetland boundaries was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). Determination of wetland boundaries was also guided by the methodologies presented in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0* (USACE, 2012) and the *New York State Freshwater Wetland Delineation Manual* (NYSDEC, 1995). All wetland boundaries were defined in the field by sequentially numbered pink surveyor's flagging, and flag locations were recorded using GPS technology with reported sub-meter accuracy. Data were collected from sample plots in representative wetland cover types and recorded on

U.S. Army Corps of Engineers (USACE) Routine Wetland Determination forms. Streams and other potential waters of the U.S. were also identified according to the Cowardin Classification System (1979). Details on delineated streams and other surface waters, including methodology and results are detailed in Exhibit 13.

As documented in Appendix 13-C, EDR delineated 147 wetlands within the Wetland Study Area, totaling approximately 382 acres. Wetlands were categorized as one or more of the following community types: palustrine emergent wetland (PEM), palustrine scrub-shrub wetland (PSS), palustrine forested wetland (PFO), or palustrine open water (POW). Many of the delineated wetlands contained more than one community type. A summary of the delineated wetlands is provided below.

A total of 98 emergent (PEM) wetlands were identified in the Wetland Study Area. These communities were characterized by the dominance of erect rooted herbaceous wetland plants and were typically located in depressional areas within or adjacent to active agricultural fields or within the floodplains of streams. Sixty-three of the wetlands identified within the Wetland Study Area were characterized by areas of broad-leaved deciduous forest vegetation (PFO). These wetlands were most often encountered adjacent to active agricultural fields and in lowlands where water from surrounding higher elevation areas accumulates. Forested wetlands are characterized by the dominance of tree species greater than 20 feet tall. Twenty-seven wetlands in the Wetland Study Area were identified as scrub-shrub wetlands (PSS) characterized by dense stands of shrubs and saplings less than 20 feet tall. These wetlands were most often encountered where tree clearing within wetlands had removed the forest overstory or in fallow fields that had become successional shrubland. Ten wetlands within the Wetland Study Area appeared to be man-made farm ponds, or other open water wetlands (POW) characterized by sparsely vegetated surfaces with standing water. Appendix 13-C provides further information regarding the methodology and results of the delineation survey and more detailed descriptions and photographs of the wetland communities encountered.

(c) Wetland Functional Assessment

A Wetlands Functions and Values Assessment (Appendix 14-B) was developed, taking into consideration seasonal variations, and following the general methodology described in the *Wetlands Functions and Values: Descriptive Approach* defined in the September 1999 supplement to *The Highway Methodology Workbook* (Supplement) by the New England Division of the USACE (USACE, 1995). The Wetlands Functions and Values Assessment includes a summary table as well as a complete set of *Highway Methodology Workbook* Wetland Function-Value Evaluation Forms used to support the assessments.

Wetland functions are ecosystem properties that result from the biologic, geologic, hydrologic, chemical and/or physical processes that take place within a wetland. As indicated in the Supplement, these functions include:

- Groundwater Recharge/Discharge
- Floodflow Alteration
- Fish and Shellfish Habitat
- Sediment/toxicant/pathogen Retention
- Nutrient Removal/Retention/Transformation
- Production (Nutrient) Export
- Sediment/Shoreline Stabilization
- Wildlife Habitat

Wetland values are the perceived benefits for society that can be derived from the ecosystem functions and/or other characteristics of a wetland. Values attributed to wetlands in the Supplement include the following:

- Recreation
- Education/Scientific Value
- Uniqueness/Heritage
- Visual Quality/Aesthetics
- Threatened or Endangered Species Habitat

Based on the "Considerations/Qualifiers" outlined for each of the 13 functions and values in the Supplement, EDR developed a matrix that includes the basic considerations that help identify the primary functions and values provided by wetlands. This includes observed vegetation conditions, hydrologic conditions, size, adjacent area conditions, and the availability of public access. Specific conditions within each of these consideration areas were defined to allow each wetland's functions and values to be evaluated based on the Wetland Data Forms completed during field delineation (see Appendix 13-C), as well as the Wetland Function-Value Evaluation Forms (Appendix 14-B). All 147 wetlands delineated within the Wetland Study Area were characterized. Data regarding these wetland characteristics and associated functions and values were collected from June through September 2020. Based on the data, the primary functions and values provided by each wetland were determined.

The functions and values assessment indicates that all of the delineated wetlands within the Wetland Study Area, regardless of size or characteristics, provide groundwater recharge/discharge functions and many provide some level of sediment/toxicant/pathogen retention and/or sediment/shoreline stabilization functions. Twenty-two of the delineated wetlands each provide four or five of the 13 evaluated function and value categories, and seven wetlands provide six or more functions and values. These seven wetlands include Wetlands FA 015, FA019, 21, 23, 46, 83, and 108 which are all relatively large (over 5 acres), associated with either a perennial or intermittent stream, have seasonal pools/standing water, dense herbaceous vegetation, variable water levels, and adjacent upland forest. Six of these seven wetlands were comprised of multiple cover types and invasive species were present. The wetland that was determined to provide the most functions and values is Wetland 46 (NYSDEC Mapped Wetland SR-8). This wetland is located adjacent to upland forests and agricultural or developed land and provides eight functions and values: groundwater recharge/discharge, sediment/toxicant/pathogen retention, nutrient removal/retention/transformation,

floodflow alteration, sediment/shoreline stabilization, wildlife habitat, fish and shellfish habitat, and visual quality functions and values.

Due to the small size, limited vegetation diversity and density, and presence of invasive species, wetland functions were determined to be limited in many of the delineated wetlands. A total of 74 wetlands in the Wetland Study Area are adjacent to active or semi-active agricultural areas or developed land. Of these, 35 delineated wetlands were determined to provide only one of the 13 evaluated function and value categories: groundwater recharge/discharge. The larger delineated wetlands (greater than 5 acres) adjacent to agricultural or developed lands typically provided three to six of the function and value categories.

Due to the private ownership of all properties within the Wetland Study Area, none of the delineated wetlands provide substantial social values such as recreation, or education/scientific value for the general public. The visual/aesthetic value of the wetlands is also limited by their generally small size and presence of invasive species. The full results of the functions and values assessment are presented in Appendix 14-B.

(d) Offsite Wetlands Analysis

As previously noted, EDR conducted a wetland and stream delineation within the Facility Site (i.e., on participating properties with available access). For areas within 100-feet from the limit of disturbance where the Applicant did not have on-site access to assess potential hydrological connections, off-site wetland boundaries were approximated using remote-sensing data, satellite imagery, 2-foot topographic contours, an interpretation of existing wetlands, stream, and soils mapping, and observations from adjacent accessible properties where available.

Wetlands extending beyond the Facility Site generally have similar functions and values to those wetlands delineated in the Wetland Study Area, described in Section (c) above. These wetlands are also not expected to be significantly different ecologically from those delineated in the Facility Site, and likely contain similar vegetative communities as described in the Wetland and Stream Delineation Report (Appendix 13-C). Wetlands within the Facility Site may also be hydrologically connected to off-site wetlands through the network streams and ditches at the site (see Exhibit 13 for a discussion of surface waters in the Facility Site). In addition, several of the wetlands extending beyond the bounds of the Facility Site are also related to mapped NYSDEC freshwater wetlands, including SR-6 and SR-8, and unmapped state-regulated wetlands as set forth in the final jurisdictional determination issued by ORES on April 19, 2021 (Appendix 14-A). See section (e) below for a discussion of proposed impacts to state-jurisdictional wetlands, including unmapped freshwater wetlands that will occur as a result of Facility construction or operation.

(e) Avoidance of State-Regulated Wetland Impacts

A number of iterative changes were made to the Facility Layout throughout the design process in order to avoid and minimize impacts to State-regulated freshwater wetlands and regulated adjacent areas (RAAs). Please see Appendix 11-E for a description of the iterative steps of Facility layout design and the impacts avoided or minimized by changes in design and loss of solar capacity. Extensive reviews of the Facility design and subsequent modifications were completed with specific priority given to the avoidance of wetland impacts. Based on the current Facility layout, all PV arrays as well as the collection substation, POI switchyard, and battery energy storage system have been designed to completely avoid impacts to State-regulated freshwater wetlands. In addition, access roads and collection lines were shifted multiple times to avoid and minimize wetland impacts. However, a subset of access roads and electrical collection line crossings will result in unavoidable impacts to state-regulated wetlands and adjacent areas, as further discussed below. Although there are 12 crossings of state-regulated wetlands by buried electrical collection lines, direct permanent impacts associated with these crossings will be completely avoided through the use of trenchless technologies (e.g., Horizontal Directional Drilling [HDD] or jack-and-bore).

(f) Measures to Minimize Wetland Impacts

As noted above, impacts to state-regulated wetlands and adjacent areas have been avoided in multiple locations by locating Facility components outside of state-jurisdictional wetlands and regulated adjacent areas where possible. However, the construction of the Facility is anticipated to result in both temporary and permanent impacts to wetlands and adjacent areas as described further in Section (f)(1) and depicted in the Wetland and Stream Impact Drawings (Appendix 14-C). The Applicant will implement a variety of specific measures to minimize the proposed wetland impacts.

(1) Why Avoidance of Certain Areas is Not Practicable

As depicted in Figure 14-1, wetlands are wide ranging within the Facility Site and occur in a broad network of large wetland complexes, drainage swales, ditches, forested wetlands, and field depressions. Complete avoidance of wetlands was not feasible due to the wide-ranging extent of wetlands throughout the Facility Site, practical considerations such as topographical constraints and land access, and the presence of other sensitive resources (e.g., forestland). Any additional wetland avoidance beyond the layout proposed in this Application would result in substantial additional tree clearing and grading (see Exhibit 11 for a discussion of the extent of tree clearing at the Facility Site) or would require a reduction in PV array coverage, thereby reducing the Facility's proposed generating capacity.

The Applicant considered various engineering and environmental factors in the siting and design of the Facility's proposed electrical collection system, with the intent to design a system that avoids and minimizes overall impacts to the natural, cultural, and human environments, considers available land siting opportunities and landowner agreements, and utilizes technical design parameters required for the Project. This approach resulted in a combination of underground and overhead electric collection lines. As stated above, wetland impacts related to collection lines will be largely avoided by utilizing trenchless installation technologies. However, in certain situations, overhead collections lines are more suitable to avoid wetland-related impacts due to other environmental and engineering constraints. For example, an approximately 4.5-mile-long overhead collection line span is sited across the southern portion of the Facility Site to avoid and minimize impacts to several large, forested wetland features, specifically Wetland 46 and Wetland 025 (both part of NYSDEC Mapped Wetland SR-8) by consolidating the electrical collection circuits required to interconnect the Facility into a single 75-foot-wide right of way. Trenchless installation is typically not feasible at distances greater than 1,000 feet due to limitations on bore size, cable pulling, and above ground access to collection lines. Therefore, given the width of the wetland features at crossing locations (1,244 feet at Wetland 46 and 1,073 feet at Wetland 025) trenchless installation is not feasible along the collection route. Additionally, based on feedback from participating landowners, the proposed route was identified as the only location in which electrical collection lines could connect the eastern and western halves of the Project. The landowners also specified that the Applicant could utilize up to a 75-foot-wide collection line easement right-of-way to avoid or minimize impacts to the landowners' current land use. Additional information regarding the evaluation of the overhead collection line routing is provided in Attachment A.

The proposed design will result in direct temporary and permanent impacts to state-regulated wetlands and their adjacent area. Tables 14-1 and 14-2 below outline the anticipated impacts to State-regulated wetlands and adjacent areas, respectively.

During construction, temporary and permanent direct or indirect impacts to wetlands may occur as a result of the installation of access roads and buried and overhead electrical collection lines. Direct impacts, including clearing of vegetation, earthwork (excavating and grading activities), and the direct placement of fill in wetlands, are typically associated with the development of access roads. The construction of access roads is anticipated to result in permanent fill (loss of wetland/surface water acreage), permanent forest conversion (forested wetlands only), and temporary impacts to wetlands associated with site preparation. The installation of buried collection lines will temporarily disturb wetlands during construction as a result of vegetation clearing (brush hogging, or similar clearing method requiring no removal of rooted woody plants). In addition, temporary soil disturbance and permanent forest conversion from burial of the electrical collection lines may occur. The construction of overhead collection lines is anticipated to include vegetation clearing, resulting in permanent forest conversion in areas of

forested wetlands, and minor permanent soil disturbance resulting from grading and grubbing that will be limited to the discrete pole locations to carry the overhead lines. Indirect impacts to wetlands and surface waters may result from sedimentation and erosion caused by adjacent construction activities (e.g., removal of vegetation and soil disturbance). This indirect impact may occur at wetlands adjacent to work areas where no direct wetland impacts are anticipated, including areas adjacent to access roads, buried electrical collection routes, laydown yard(s), or the substation and battery energy storage system facilities. The Applicant has committed to construction activities that incorporate matting and low-ground disturbance best management practices in order to further minimize disturbance during the construction process. The Project has demonstrated all practicable efforts to avoid and minimize wetland impacts as described in Section 900-2.15(f)(1-4).

Based on the limits of disturbance as determined through preparation of the preliminary design drawings, impacts to state-regulated wetlands will total approximately 7.7 acres, including 0.66 acre due to access road construction, 6.99 acres associated with forest clearing, and 0.02-acre of temporary disturbance to soils and vegetation. Impacts to NYSDEC Regulated Adjacent Areas (RAA) will total approximately 33.3 acres, including 3.1 acres due to access road construction and other fill, 21.5 acres of forest clearing, 4.5 acres of temporary disturbance to soils and vegetation and 4.2 acres of potential inadvertent disturbance within temporary work areas.

Table 14-1. State-Regulated Wetland Impacts

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Wetland Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acre	Square Feet	Acre	
Class II, SR-6	Wetland 23	PFO	Clearing of Forest	A(M2)	314.8	<0.1	629.6	<0.1	56
Class II, SR-8	FA Wetland 025	PFO	Clearing of Forest	A(M2)	81,955.7	1.9	163,911.4	3.8	20, 21
			Work Area	A(M3)	17.5	<0.1	17.5	<0.1	
	FA Wetland 026	PEM	Clearing and manipulation of undisturbed herbaceous vegetation	A(M3)	303.0	<0.1	303.0	<0.1	27
		PSS	Clearing of Forest	A(M2)	6,013.7	0.1	12,027.4	0.3	
			Work Area	A(M3)	7.7	<0.1	7.7	<0.1	
	FA Wetland 028	PSS	Clearing of Forest	A(M2)	2,131.7	<0.1	4,263.4	0.1	28
	Wetland 108	PFO	Clearing of Forest	A(M2)	12,236.7	0.3	24,473.4	0.6	21
	Wetland 46	PEM	Access Road	A(M2)	365.8	<0.1	731.6	<0.1	26, 28, 31, 35 – 38, 43 – 46, 49 – 51
			Work Area	A(M3)	200.3	<0.1	200.3	<0.1	
		PFO	Clearing of Forest	A(M2)	95,937.3	2.2	191,874.6	4.4	
			Access Road	A(M2)	3,253.1	<0.1	6,506.2	0.1	
			Work Area	A(M3)	493.6	<0.1	493.6	<0.1	
		PSS	Access Road	A(M2)	1,050.8	<0.1	2,101.6	<0.1	
			Work Area	A(M3)	74.9	<0.1	74.9	<0.1	
	Wetland 51	PEM	Clearing and manipulation of undisturbed herbaceous vegetation	A(M2)	129.8	<0.1	129.8	<0.1	34
		PFO	Clearing of Forest	A(M2)	1,470.5	<0.1	2,941.0	0.1	
Unmapped >12.4 Acres, N/A	FA Wetland 006	PEM	Access Road	A(M3)	679.6	<0.1	679.6	<0.1	8
			Selective cutting of trees and shrubs	A	128.3	<0.1	0.0	<0.1	
	FA Wetland 012	PFO	Clearing of Forest	A(M3)	104,447.5	2.4	104,447.5	2.4	4, 7, 8
			Work Area	A(E)	397.5	<0.1	397.5	<0.1	
	FA Wetland 015	PEM	Access Road	A(M3)	995.9	<0.1	995.9	<0.1	10
			Work Area	A(E)	167	<0.1	167	<0.1	

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Wetland Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acre	Square Feet	Acre	
	FA Wetland 029	PSS	Access Road	A(M3)	16,104.9	0.4	16,104.9	0.4	24, 25
			Work Area	A(E)	1,294.6	<0.1	1,294.6	<0.1	
	Wetland 38	PEM	Grading and manipulation of disturbed areas (active hay/row crops, existing commercial/industrial development)	A(E)	359.6	<0.1	359.6	<0.1	57
			Work Area	A(E)	189.4	<0.1	189.4	<0.1	
	Wetland 83	PEM	Access Road	A(M3)	1,180.0	<0.1	1,180.0	<0.1	69
			Work Area	A(E)	239.9	<0.1	239.9	<0.1	
	Wetland 98	PEM	Access Road	A(M3)	5,058.0	0.1	5,058.0	0.1	23
			Work Area	A(E)	308.6	<0.1	308.6	<0.1	
				TOTAL	**337,507.7**	**7.7**	**542,109.5**	**12.4**	

Notes:

[1] Work Areas include locations directly adjacent to proposed facility components where additional space may be needed to support certain construction activities in approved areas. Although these areas may be temporarily accessed during construction, the Applicant does not anticipate construction activities would result in fill, dredge, or other regulated impacts. These areas have only been included in Table 14-1 because construction support activities may occur within these areas and unanticipated impacts may occur.

[2] Per §900-2.15(g) of the 94-c regulations, A = Allowed, no mitigation or enhancement required; A (M2) = Allowed, mitigation required on a 2:1 mitigation ratio; A(M3) = Allowed, mitigation required on a 1:1 ratio; A(E) = Allowed, enhancements and/or of mitigation required

Table 14-2. State-Regulated Adjacent Area Impacts

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Adjacent Area Community Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acres	Square Feet	Acres	
Class II, SR-6	Wetland 23 - PFO	Beech-maple Mesic Forest, Hemlock-Northern Hardwood Forest	Clearing of Forest	A(E)*	122,030.8	2.8	84,781.4	1.9	55, 56
			Work Area	A	32.8	<0.1	0.0	0.0	
Class II, SR-8	FA Wetland 025 - PFO	Beech-maple Mesic Forest, Successional Shrubland	Clearing of Forest	A(E)*	39,733.5	0.9	22,796.8	0.5	20
			Work Area	A	1.3	<0.1	0.0	0.0	
	FA Wetland 025 - PFO, Wetland 108 - PFO	Beech-maple Mesic Forest, Hemlock-Northern Hardwood Forest	Clearing of Forest	A(E)*	15,253.3	0.4	10,981.7	0.3	21
	FA Wetland 026 - PEM	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	159.4	<0.1	159.4	<0.1	27
			Work Area	A	17.2	<0.1	0.0	0.0	
	FA Wetland 026 - PEM, FA Wetland 026 - PSS	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	13,683.1	0.3	13,683.0	0.3	27
	FA Wetland 026 - PEM, Wetland 108 - PEM	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	10,865.7	0.2	7,982.5	0.2	22, 27
	FA Wetland 026 - PSS	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	378.3	<0.1	310.3	<0.1	27
	FA Wetland 026 - PSS, FA Wetland 030 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	8,697.6	0.2	7,571.4	0.2	27
	FA Wetland 027 - PEM, FA Wetland 028 - PSS	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	7,877.0	0.2	5,683.5	0.1	28
	FA Wetland 028 - PSS	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	23,983.5	0.6	14,884.6	0.3	28
			Other Fill	A(E)*	207.0	<0.1	65.9	<0.1	
	FA Wetland 028 - PSS, Wetland 46 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	131.7	<0.1	131.7	<0.1	28
	Wetland 108 - PEM	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	232.5	<0.1	0.0	0.0	22
	Wetland 108 - PFO	Beech-maple Mesic Forest, Hemlock-Northern Hardwood Forest	Clearing of Forest	A(E)*	15,190.4	0.3	10,674.5	0.2	21, 22
	Wetland 46 - PEM	Hemlock-Northern Hardwood Forest, Successional Shrubland	Clearing of Forest	A(E)*	6,675.9	0.2	0.0	0.0	45
			Other grading	A	104.4	<0.1	0.0	0.0	
			Work Area	A	135.5	<0.1	0.0	0.0	
	Wetland 46 - PEM, Wetland 46 - PSS	Field Crops, Pastureland, Successional Old Field, Successional Shrubland	Access Road	A(E)*	21,243.9	0.5	19,422.3	0.4	43, 50
			Clearing of Forest	A(E)*	60.9	<0.1	60.9	<0.1	
			Work Area	A	407.3	<0.1	0.0	0.0	

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Adjacent Area Community Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acres	Square Feet	Acres	
Class II, SR-8	Wetland 46 - PFO	Beech-maple Mesic Forest, Field Crops, Hemlock-Northern Hardwood Forest, Successional Northern Hardwoods, Successional Shrubland	Access Road	A(E)*	10,154.1	0.2	5,949.8	0.1	25 ,26, 31, 35, 36, 37, 43, 44, 46
			Clearing of Forest	A(E)*	213,086.7	4.9	120,782.0	2.8	
			Other Fill	A(E)*	3,539.6	0.1	1,187.8	<0.1	
			Disturbed Areas	A	2,784.4	0.1	0.0	0.0	
			Work Area	A	6,455.4	0.1	0.0	0.0	
	Wetland 46 - PFO, Wetland 46 - PSS	Hemlock-Northern Hardwood Forest, Successional Shrubland	Clearing of Forest	A(E)*	28,832.1	0.7	7,686.1	0.2	37, 38
			Work Area	A	1,015.6	<0.1	0.0	0.0	
	Wetland 46 – POW	Pastureland	Work Area	A	697.4	<0.1	0.0	0.0	49
	Wetland 46 - PSS	Field Crops, Successional Shrubland, Pastureland, Successional Old Field, Hemlock-Northern Hardwood Forest	Access Road	A(E)*	31.3	<0.1	0.0	<0.1	37, 38, 43, 44, 45, 49, 50, 51
			Clearing of Forest	A(E)*	20,871.3	0.5	2,705.5	0.1	
			Other Fill	A(E)*	506.4	<0.1	0.0	0.0	
			Other grading	A	16,045.7	0.4	0.0	0.0	
			Disturbed Areas	A	8,260.9	0.2	0.0	0.0	
			Work Area	A	30,179.7	0.7	0.0	0.0	
	Wetland 51 - PEM, Wetland 51 - PFO	Hemlock-Northern Hardwood Forest	Clearing of Forest	A(E)*	4,913.8	0.1	3,890.6	0.1	34
	Wetland 51 - PFO	Hemlock-Northern Hardwood Forest	Clearing of Forest	A(E)*	240.4	<0.1	0.0	0.0	34
	Wetland 86 - PEM, Wetland 86 - PFO, Wetland 87 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	4,845.6	0.1	2,006.2	<0.1	42
	Wetland 86 - PFO	Beech-maple Mesic Forest, Pastureland	Access Road	A(E)*	4,515.9	0.1	2,116.8	<0.1	42, 47
			Clearing of Forest	A(E)*	9,353.1	0.2	1,725.7	<0.1	
			Work Area	A	514.7	<0.1	0.0	0.0	
	Wetland 86 - PFO, Wetland 87 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A(E)*	6,704.5	0.2	1,016.3	<0.1	42
Unmapped >12.4 Acres, N/A	FA Wetland 006 - PEM	Developed/Disturbed, Field Crops	Access Road	A	5,119.0	0.1	0.0	0.0	8
			Disturbed Areas	A	8,385.9	0.2	0.0	0.0	
			Work Area	A	5,663.8	0.1	0.0	0.0	

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Adjacent Area Community Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acres	Square Feet	Acres	
Unmapped >12.4 Acres, N/A	FA Wetland 006 - PEM, FA Wetland 007 - PEM, FA Wetland 012 - PFO	Beach-Maple Mesic Forest, Field Crops	Clearing of Forest	A	19,480.9	0.4	0.0	0.0	7, 8
			Disturbed Areas	A	5,726.4	0.1	0.0	0.0	
	FA Wetland 006 - PEM, FA Wetland 012 - PFO	Beach-Maple Mesic Forest, Field Crops	Access Road	A	14,352.0	0.3	0.0	0.0	4, 5, 7, 8
			Clearing of Forest	A	70,897.7	1.6	0.0	0.0	
			Disturbed Areas	A	22.6	<0.1	0.0	0.0	
			Work Area	A	40,376.2	0.9	0.0	0.0	
	FA Wetland 007 - PEM	Beach-Maple Mesic Forest, Field Crops	Clearing of Forest	A	2,877.5	0.1	0.0	0.0	7, 8, 9
			Disturbed Areas	A	5,417.6	0.1	0.0	0.0	
			Work Area	A	7,313.8	0.2	0.0	0.0	
	FA Wetland 007 - PEM, FA Wetland 012 - PFO	Beach-Maple Mesic Forest, Field Crops	Clearing of Forest	A	11,908.3	0.3	0.0	0.0	7, 8
			Disturbed Areas	A	914.2	<0.1	0.0	0.0	
			Other grading	A	179.6	<0.1	0.0	0.0	
			Work Area	A	6,337.9	0.1	0.0	0.0	
	FA Wetland 007 - PEM, Wetland 106 - PSS	Developed/Disturbed, Field Crops	Access Road	A	3,358.7	0.1	0.0	0.0	9, 7
			Disturbed Areas	A	23,163.1	0.5	0.0	0.0	
			Work Area	A	4,686.1	0.1	0.0	0.0	
	FA Wetland 012 - PFO	Beach-Maple Mesic Forest, Field Crops	Access Road	A	1,033.5	<0.1	0.0	0.0	4, 5, 7, 8,
			Clearing of Forest	A	132,452.6	3.0	0.0	0.0	
			Disturbed Areas	A	4,426.7	0.1	0.0	0.0	
			Other grading	A	103.1	<0.1	0.0	0.0	
			Work Area	A	10,897.1	0.3	0.0	0.0	
	FA Wetland 013 - PFO	Beach-Maple Mesic Forest	Clearing of Forest	A	28,135.9	0.6	0.0	0.0	5
	FA Wetland 015 - PEM	Beach-Maple Mesic Forest, Successional Northern Hardwoods, Successional Old Field	Access Road	A	6,381.5	0.1	0.0	0.0	10, 11
			Clearing of Forest	A	9,219.0	0.2	0.0	0.0	
			Clearing of Undisturbed Herbaceous Vegetation	A	8.2	<0.1	0.0	0.0	
			Other grading	A	5,017.3	0.1	0.0	0.0	
			Work Area	A	2,770.6	0.1	0.0	0.0	

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Adjacent Area Community Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acres	Square Feet	Acres	
Unmapped >12.4 Acres, N/A	FA Wetland 015 - PEM, FA Wetland 015 - PSS	Beach-Maple Mesic Forest, Successional Old Field	Clearing of Forest	A	14,955.1	0.3	0.0	0.0	10, 14
			Other grading	A	8,610.9	0.2	0.0	0.0	
			Work Area	A	647.4	<0.1	0.0	0.0	
	FA Wetland 015 - PSS	Beech-Maple Mesic Forest, Row Crops, Successional Northern Hardwoods	Clearing of Forest	A	17,502.3	0.4	0.0	0.0	6, 10, 11, 14
			Disturbed Areas	A	36,353.6	0.8	0.0	0.0	
			Work Area	A	2,037.5	<0.1	0.0	0.0	
	FA Wetland 016 - PEM	Beach-Maple Mesic Forest, Successional Old Field	Access Road	A	78.5	<0.1	0.0	0.0	10
			Clearing of Forest	A	10,147.2	0.2	0.0	0.0	
	FA Wetland 016 - PEM	Beach-Maple Mesic Forest, Successional Old Field	Work Area	A	338.7	<0.1	0.0	0.0	10
	FA Wetland 016 - PFO	Beach-Maple Mesic Forest	Clearing of Forest	A	11,238.4	0.3	0.0	0.0	10
	FA Wetland 019 - PEM	Successional Old Field	Clearing of Undisturbed Herbaceous Vegetation	A	70.9	<0.1	0.0	0.0	14
			Other grading	A	1,418.7	<0.1	0.0	0.0	
			Work Area	A	323.5	<0.1	0.0	0.0	
	FA Wetland 019 - PEM, FA Wetland 019 - PSS	Successional Old Field	Access Road	A	8,519.7	0.2	0.0	0.0	14
			Clearing of Undisturbed Herbaceous Vegetation	A	217.7	<0.1	0.0	0.0	
			Other grading	A	1,122.4	<0.1	0.0	0.0	
			Work Area	A	5,290.3	0.1	0.0	0.0	
	FA Wetland 019 - PSS	Successional Old Field, Successional Shrubland, Hemlock-Northern Hardwood Forest	Access Road	A	1,646.1	<0.1	0.0	0.0	14, 16
			Clearing of Forest	A	540.1	<0.1	0.0	0.0	
			Other grading	A	4,391.1	0.1	0.0	0.0	
			Work Area	A	212.1	<0.1	0.0	0.0	
	FA Wetland 026 - PSS, FA Wetland 030 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A	13,823.2	0.3	0.0	0.0	27
	FA Wetland 029 - PSS	Beech-maple Mesic Forest, Developed/Disturbed, Pastureland	Access Road	A	21,929.1	0.5	0.0	0.0	23, 24, 25
			Clearing of Forest	A	23,748.2	0.5	0.0	0.0	
			Disturbed Areas	A	6,443.1	0.1	0.0	0.0	
			Work Area	A	5,546.7	0.1	0.0	0.0	

NYSDEC Mapped Wetland Class/ID	Wetland Delineation ID	Adjacent Area Community Type	94-C Activity[1]	94-C Mitigation Requirement[2]	Impacts		Mitigation		Appendix 14-C Sheet Number
					Square Feet	Acres	Square Feet	Acres	
Unmapped >12.4 Acres, N/A	FA Wetland 030 - PFO	Beech-maple Mesic Forest	Clearing of Forest	A	2,004.2	<0.1	0.0	0.0	27
	Wetland 106 - PSS	Beech-maple Mesic Forest, Field Crops	Access Road	A	4,216.3	0.1	0.0	0.0	9
			Clearing of Forest	A	7,563.2	0.2	0.0	0.0	
			Disturbed Areas	A	2,353.5	0.1	0.0	0.0	
			Other grading	A	53.9	<0.1	0.0	0.0	
			Work Area	A	5,020.9	0.1	0.0	0.0	
	Wetland 38 - PEM	Pastureland	Disturbed Areas	A	18,137.3	0.4	0.0	0.0	57
			Work Area	A	8,963.4	0.2	0.0	0.0	
	Wetland 83 - PEM	Field Crops, Successional Northern Hardwoods	Access Road	A	18,795.2	0.4	0.0	0.0	67, 68, 69
			Clearing of Forest	A	298.7	<0.1	0.0	0.0	
			Disturbed Areas	A	18,228.7	0.4	0.0	0.0	
			Work Area	A	17,400.9	0.4	0.0	0.0	
	Wetland 83 - PEM, Wetland 83 - PSS	Field Crops	Disturbed Areas	A	2,799.3	0.1	0.0	0.0	67, 68
			Work Area	A	10,526.8	0.2	0.0	0.0	
	Wetland 83 - PSS	Field Crops, Successional Shrubland	Clearing of Forest	A	8,552.1	0.2	0.0	0.0	68
			Disturbed Areas	A	46.5	<0.1	0.0	0.0	
			Other grading	A	33.2	<0.1	0.0	0.0	
			Work Area	A	274.5	<0.1	0.0	0.0	
	Wetland 98 - PEM	Beech-maple Mesic Forest, Pastureland, Developed/Disturbed Land	Access Road	A	10,099.4	0.2	0.0	0.0	23, 24
			Clearing of Forest	A	192.8	<0.1	0.0	0.0	
			Disturbed Areas	A	10,967.8	0.3	0.0	0.0	
			Work Area	A	7,799.5	0.2	0.0	0.0	
				TOTAL:	**1,448,759.0**	**33.3**	**348,256.8**	**8.0**	

Notes:

[1] Work Areas include locations directly adjacent to proposed facility components where additional space may be needed to support certain construction activities in approved areas. Although these areas may be temporarily accessed during construction, the Applicant does not anticipate construction activities would result in fill, dredge, or other regulated impacts. These areas have only been included in Table 14-2 because construction support activities may occur within these areas and unanticipated impacts may occur. Work Areas are anticipated to be classified as a minor activity under the 94-c regulations and would be allowable without mitigation or enhancement required.

[2] Per §900-2.15(g) of the 94-c regulations, A = Allowed, no mitigation or enhancement required; A (M2) = Allowed, mitigation required on a 2:1 mitigation ratio; A(M3) = Allowed, mitigation required on a 1:1 ratio; A(E) = Allowed, enhancements and/or of mitigation required.

(2) How the Facility Design has Minimized Proposed Impacts

A number of site-specific actions are proposed that will minimize direct and indirect impacts to wetlands that could not be avoided and are indicated in Table 14-1 above. Existing farm roads were sited for access road and collection line routes, where feasible, to utilize previously disturbed corridors and avoid further disturbance. Where access road and/or collection line crossings of wetlands are proposed, the Applicant sited the crossing location at the narrowest part of the wetland or along edges to reduce the extent of direct impacts to the wetland to the greatest extent practicable. In addition, as previously noted, trenchless installation of buried collection line crossings, or overhead collection lines, are proposed in several locations, to eliminate or minimize direct disturbance to wetland areas that would otherwise occur from trenching buried collection lines within wetlands.

Construction-related indirect impacts to wetlands and streams noted earlier, such as sedimentation and erosion, have the potential to result in degradation of downstream water quality. These impacts will be minimized and/or mitigated to the maximum extent practicable, because the Applicant will use best management practices, including implementing a Stormwater Pollution Prevention Plan (SWPPP; Appendix 13-E). Specific impact avoidance and minimization measures for impacts could include, but are not limited to:

- *No Equipment Access Areas:* Except where crossed by permitted access roads or through use of temporary timber or composite matting, wetlands will be designated "No Equipment Access," thus prohibiting the use of motorized equipment in these areas.
- *Restricted Activities Area:* A buffer zone of 75 feet, referred to as "Restricted Activities Area," will be established where Facility construction will cross wetlands and other bodies of water. Restrictions will include:
    - No deposition of slash within or adjacent to a waterbody/wetland;
    - No accumulation of construction debris within the area;
    - No equipment washing or refueling within the area;
    - No storage of any petroleum or chemical material; and
    - No disposal of excess concrete or concrete wash water.
- *Sediment and Siltation Control*: A soil erosion and sedimentation control (E&SC) plan will be developed and implemented as part of the SPDES General Permit for the Facility. Temporary E&SC practices may include silt fences, hay bales, and other options presented in the Preliminary SWPPP, and the civil design drawings in Appendix 5-A. Exposed soil will be seeded and/or mulched to assure that erosion and siltation is kept to a minimum along wetland boundaries. These features will be inspected on a regular basis to assure that they function properly throughout the period of construction, and until completion of all construction restoration work.

(3) How the Facility Design and Siting Minimize Impacts to Functions and Values

As described above, the proposed Facility design results in several direct impacts to the NYSDEC regulated freshwater wetlands and RAAs. State-regulated wetland impacts resulting from construction of collection line and access road routes are limited to NYSDEC Class II and Unmapped (greater than 12.4 acres) wetlands. Many of these wetlands are largely depressions within agricultural fields, stream floodplains, forested lowland areas, wet shrubland in forest clearings or fallowed fields that contain a mix of wetland vegetation cover types. Many of these areas also contain stands of invasive plant species such as purple loosestrife, Japanese stiltgrass, and common reed grass.

The primary functions provided by these wetlands is groundwater recharge/discharge, sediment/toxicant retention, nutrient removal/retention/transformation, and flood flow alteration. Several of the larger wetlands also provide sediment/shoreline stabilization, fish and shellfish habitat, and wildlife habitat. The Applicant has sought to minimize impacts to wetlands function and values primarily through micro-siting of Facility components to be located outside of wetlands entirely. In siting certain infrastructure, especially linear facility components such as access roads and collection lines, it was infeasible to avoid wetlands crossings entirely. In those instances, the Applicant identified the narrowest crossing of wetlands in order to limit the impact to the larger wetland or wetland complex. Additionally, the Project incorporated design features to minimize impacts to the existing hydraulic functions, and the overall footprint of the Facility in wetlands. This includes trenchless underground collection line design for crossing small wetlands or streams and overhead collection line design for crossing large wetlands or wetland complexes in order to avoid direct disturbance to functions such as groundwater recharge, sediment stabilization, and wildlife habitat. The aggregation of multiple underground collection line routes to one aboveground collection line significantly reduced the conversion of palustrine forested wetlands and direct ground disturbance within these wetlands, significantly limiting effects to the wetland functions. Access roads were sited along existing two-track roads and were designed to limit impacts to water flow preventing new fragmentation impacts or bifurcation of wetlands thereby minimizing impacts to functions such as groundwater recharge, sediment stabilization, floodflow alteration, and wildlife habitat.

The avoidance and minimization considerations during Facility layout design have minimized adverse impacts to high value on-site wetlands and their functions and values to the greatest extent practicable. In addition, implementation of the best management practices described above during construction will further minimize and mitigate impacts to wetland functions and values. However, the Applicant acknowledges that the proposed layout may result in unavoidable loss of some wetland functions and values within the proposed collection line and access road routes, primarily wildlife and fish and shellfish habitat.

(4) How the Facility Design and Siting Maximizes or Improves Functions and Values of Remaining Adjacent Areas

As stated above, impacts to state-jurisdictional wetlands and regulated adjacent areas requiring mitigation have been avoided to the maximum extent practicable because of the Applicant's iterative design process for the Project. Additionally, much of the state-regulated adjacent areas are currently in active agricultural production, that have experienced recurring disturbance related to pasture grazing or hay production and cultivation. Hay production activities, which includes the cutting, drying, raking, and baling of all vegetation within fields, and livestock production and fertilization, which increases nutrient loads, can reduce functions and values in such areas. Upon completion of construction, areas within the security fence will be revegetated with a native seed mix and allowed to return to an early successional ecological community. The increased vegetation diversity and density is expected to result in a benefit to regulated wetlands through the reduction of sedimentation and nutrient loads that can result from active agricultural operations. This will result in an improvement to certain functions and values such as sediment and pollutant retention through potential reduction of overall load, sediment stabilization, and the introduction of diverse vegetation could result in a benefit to wildlife habitat.

The functions and values of remaining wetlands and adjacent areas will not be affected by Facility construction or operation.

(g) Wetland Restoration and Mitigation

As described in Sections (e) and (f) above and depicted in Appendix 14-C, construction of the Facility will result in a total of 7.7 acres of impacts to state-regulated wetlands and 33.3 acres to state-regulated adjacent areas. Upon completion of construction activities, temporarily disturbed areas will be restored to pre-construction contours and re-seeded with native seed mix. As noted in Tables 14-1 and 14-2 above, several proposed activities will trigger compensatory mitigation in accordance with Section 900-2.15(g) resulting in a total of 20.4 acres of mitigation to offset impacts to state-regulated wetlands and adjacent areas.

The Applicant will mitigate impacts to NYSDEC jurisdictional resources according to resource and impact-specific mitigation requirements identified in Tables 14-1 and 14-2. The Applicant is proposing an applicant-responsible, on-site compensatory mitigation program as outlined in the draft Wetland Restoration and Mitigation Plan included in Appendix 14-D. This Plan presents the 94-c mitigation requirements and a review of Facility Site parcels that may be suitable for potential mitigation sites. The Applicant is currently in negotiations with one or more landowners to establish appropriate wetland mitigation sites. Suitable wetland mitigation sites under consideration are contiguous with an

existing state-jurisdictional wetland, and possess the necessary topographic, hydrological, and soils characteristics to allow for the successful establishment of a compensatory wetland area.

A Final Wetland Restoration and Mitigation Plan will be developed to describe the specific mitigation actions and commitments the Applicant will implement to compensate for unavoidable wetland and adjacent area impacts. Selected mitigation sites will be identified in the Final Wetland Restoration and Mitigation Plan. The Plan will also contain the following information:

1. A description of the wetland mitigation site or sites, including information on soils, vegetation, topography, and proximity to NYSDEC-regulated wetlands.
2. 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.
3. A preliminary site plan showing existing and proposed contours and vegetative plantings.
4. 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)(2), the Final Wetland Restoration and Mitigation Plan will be submitted under separate cover as a pre-construction compliance filing pursuant to Section 900-10.2(f)(2).

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