Attachment X

Revised Exhibit 14. Wetlands

RIVERSIDE SOLAR, LLC

Matter No. 21-00752

900-2.15 Exhibit 14

Wetlands

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Acronym List

AES	The AES Corporation, Inc.
DPS	Department of Public Service
ECL	Environmental Conservation Law
FGDC	Federal Geographic Data Committee
IFP	Issued for Permitting
LOD	Limit of Disturbance
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
ORES	Office of Renewable Energy Siting
PEM	Palustrine Emergent
PFO	Palustrine Forested
PJD	Preliminary Jurisdictional Determination
PSS	Palustrine Scrub-Shrub
PUB	Palustrine Unconsolidated Bottom
REPH	Riverine Ephemeral
RIN	Riverine Intermittent
RUP	Riverine Perennial
USACE	United States Army Corps of Engineers
USCs	Uniform Standards and Conditions
USDA	United States Department of Agriculture

Glossary Terms

Ancillary Features	The proposed components of the Facility which are constructed to supplement energy collection and distribution at the Facility, including haul roads, fencing, and the proposed interconnection line between the proposed collection substation and the existing National Grid Lyme Tap Line off the Thousand Islands – Coffeen St. 115 kV transmission line #4.
Applicant	Riverside Solar, LLC, a subsidiary of The AES Corporation, Inc. (AES), the entity seeking a siting permit for the Facility from the Office of Renewable Energy Siting (ORES) under Section 94-c of the New York State Executive Law.
Facility	The proposed components to be constructed for the collection and distribution of energy for the Riverside Solar Project, which includes solar arrays, inverters, electric collection lines, and the collection substation.
Facility Site	The parcels encompassing Facility components which totals 1,168 acres in the Towns of Lyme and Brownville, Jefferson County, New York (Figure 2-1).
Limits of Disturbance	The area to which construction impacts will occur, totaling approximately 628 acres.
Study Area	In accordance with the Section 94-c Regulations, the Study Area for the Facility includes a radius of five miles around the Facility Site boundary, unless otherwise noted for a specific resource study or Exhibit. The 5-mile Study Area encompasses 79,169 acres, inclusive of the 1,168-acre Facility Site.

Exhibit 14: Wetlands

This Exhibit provides information required in accordance with the requirements of §900-2.15 of the Section 94-c Regulations.

14(a) Map Depicting Wetland Boundaries

Field surveys were conducted to identify wetlands and streams within the Facility Site and within 100 feet of areas to be disturbed by construction of the Facility where the survey teams had property access. Surveys were performed in accordance with the *United States Army Corps of Engineers* (*USACE) 1987 Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012), the *New York State Freshwater Wetlands Delineation Manual* (Browne et al., 1995), and the New York State Department of Public Service (DPS) Staff interpretation dated May 31, 2018, concerning the delineation of all federal, state, and locally regulated wetlands present at the Facility Site and within 100 feet of areas to be disturbed by construction, including the interconnections.

TRC conducted onsite wetland surveys for approximately 1,084 acres of leased private lands within the Facility Site. The area delineated is referred to as the Wetland Delineation Survey Area throughout this exhibit and is shown on Figure 14-1. Wetland and waterbody delineations took place from June 1 through June 5, on September 23, and on December 17, 2020. Figure 14-1 includes wetlands presumed to be within one hundred feet of areas to be disturbed by construction. Tables 14-1 and 14-2, below, summarizes proposed impacts to mapped wetlands and regulated 100-foot adjacent areas within the Facility Site due to construction activities associated with the solar array and appurtenant facilities installation.

Table 14-1. USACE Temporary and Permanent Wetland Impacts					
Field ID	Wetland Class	Impact Type	Total Impacts		Page Number from Civil Drawing
			Sq Ft	Acres	
W-BF-2	PEM	Tree Clearing[1], LOD	2800.21	0.064	PV-C.01.14
W-BF-3	PEM	Tree Clearing[1], LOD	65.12	0.002	PV-C.01.14
W-BF-5	PEM	Tree Clearing[1], Access Road, Grading, Culvert, Fence Line, LOD	34728.30	0.797	PV-C.01.11 PV-C.01.12 PV-C.01.13 PV-C.01.14 PV-C.01.15
W-BF-7	PEM	LOD	183.39	0.004	PV-C.01.13 PV-C.01.16
W-BF-9	PEM	Tree Clearing[1], Fence Line, LOD	3085.88	0.071	PV-C.01.07 PV-C.01.09
W-BF-10	PEM	Tree Clearing[1], LOD	39434.10	0.905	PV-C.01.09

W-BF-12	PSS	Tree Clearing[1], Fence Line, LOD	9020.49	0.207	PV-C.01.05
W-NSD-2	PEM	Tree Clearing[1]	696.96	0.016	PV-C.01.01 PV-C.01.02
W-NSD-3	PFO	Tree Clearing[1]	10612.91	0.244	PV-C.01.02
	PSS	Tree Clearing[1]	16708.96	0.384	
W-NSD-5	PSS	Tree Clearing[1]	33742.53	0.775	PV-C.01.02 PV-C.01.03
W-NSD-6	PSS	Tree Clearing[1]	9321.84	0.214	PV-C.01.03
W-NSD-7	PSS	LOD	32.58	0.001	PV-C.01.03 PV-C.01.04
W-NSD-11	PEM	Tree Clearing[1], Culvert, LOD	1187.64	0.027	PV-C.01.06 PV-C.01.07
Totals	**-**	**-**	**161620.91**	**3.647**	**-**

[1] Selective clearing method will be used, which involves no grading, or grubbing of stumps.

Table 14-2. ORES Wetland Impacts

Field ID	Wetland Class	Impact Type	Total Impacts		Page Number from Civil Drawing
			Sq Ft	Acres	
W-BF-5	PEM	Tree Clearing[1], Access Road, Grading, Culvert, Fence Line, LOD	34728.30	0.797	PV-C.01.11 PV-C.01.12 PV-C.01.13 PV-C.01.14 PV-C.01.15
Totals	**-**	**-**	**34728.30**	**0.797**	**-**

[1] Selective clearing method will be used, which involves no grading, or grubbing of stumps.

Table 14-3. Impacts to ORES Regulated Adjacent Areas					
Field ID	Wetland Class	Impact Type	Total Impacts		Page Number from Civil Drawing
			Sq Ft	Acres	
W-BF-5	PEM	Gravel Area, HDD Pits, Inverters, Laydown Yard, Fenced Area, Tree Clearing[1], Access Road, Array Area, Grading, Culvert, Fence Line, LOD	1,037,217.31	24.006	PV-C.01.11 PV-C.01.12 PV-C.01.13 PV-C.01.14 PV-C.01.15
W-NSD-1	PEM	Tree Clearing[1], Array Area, Fence Line, LOD	19864.71	0.456	PV-C.01.01
W-NSD-7	PSS	Fenced Area, Array Area, Fence Line, LOD	73278.90	1.682	PV-C.01.03 PV-C.01.04

W-NSD-9	PEM	Fenced Area, Array Area, Fence Line, LOD	15202.74	0.349	
W-NSD-10	PEM	Laydown Yard, Access Road, Grading, Fence Line, LOD	12755.33	0.292	PV-C.01.06 PV-C.01.07
Totals	**-**	**-**	**1158318.99**	**26.845**	**-**

[1]Selective clearing method will be used, which involves no grading, or grubbing of stumps.

14(b)Wetland Delineation Survey Reports

A description of wetland and stream cover types delineated within the Wetland Delineation Survey Area associated with the Facility Site are described in detail below and described in detail in the Wetland and Stream Delineation Report included herein as Appendix 14-1. Each wetland was assigned cover types based on the Cowardin Classification System (Federal Geographic Data Committee, 2013). In some instances, a delineated wetland or stream contained multiple cover types due to its size and/or a more complex community character. Boundaries were demarcated and data plots were collected for each specific cover type. This method was used to establish a more complete depiction of wetlands and a more informative approach to any potential future mitigation efforts. Further information regarding the results of the Wetland Delineation Survey is included in Appendix 14-1.

Palustrine Emergent wetlands (PEM) – Eighteen wetlands delineated within the Facility Site contain characteristics representative of the PEM classification. PEM wetlands are dominated by an herbaceous layer of hydrophytic (water-tolerant) plant species. PEM wetlands typically contain deep, nutrient rich soils that remain heavily saturated or even inundated throughout the year.

PEM wetlands encountered in the Wetland Delineation Survey Area were typically dominated by reed canary grass (*Phalaris arundinacea*), narrowleaf cattail (*Typha angustifolia*), white meadowsweet (*Spiraea alba*), fox sedge, (*Carex vulpinoidea*), soft rush (*Juncus effusus*), gray dogwood (*Cornus racemosa*), and jewelweed (*Impatiens capensis*). Evidence of wetland hydrology for these resource areas includes saturation, water-stained leaves, oxidized rhizospheres on living roots, drainage patterns, saturation visible on aerial imagery, geomorphic position, and the FAC-neutral test. Observed soils reflected hydric soil indicator features outlined in *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils*, Version 8.2 (Natural Resources Conservation Service [NRCS], 2018). Although hydric soil indications were variable, PEM wetlands within the Wetland Delineation Survey Area typically displayed silty clay loam, clay loam, and clay soils. Variations of characteristics in the soil matrices generally demonstrated Depleted Matrix (F3) and/or Redox Dark Surface (F6) hydric soil indicators.

Palustrine Scrub-Shrub wetlands (PSS) – Nine wetlands delineated within the Facility Site contained characteristics representative of a PSS wetland community. PSS wetlands are

dominated by woody shrub vegetation that stands less than 20 feet tall. Shrub species dominating the wetland could include true shrubs, a mixture of young trees and shrubs, or trees that are small or stunted due to stressors from environmental conditions.

PSS wetlands encountered in the Wetland Delineation Survey Area were typically dominated by gray dogwood, swamp white oak (*Quercus bicolor*), American elm (*Ulmus americana*), black willow (*Salix nigra*), Morrow's honeysuckle (*Lonicera morrowii*) and white meadowsweet. Evidence of wetland hydrology for these resource areas includes saturation, high water table, saturation visible on aerial imagery, geomorphic position, and the FAC-neutral test. PSS wetlands typically displayed clay loam and clay soils. Variations of characteristics in the soil matrices generally demonstrated Depleted Matrix (F3) and/or Redox Dark Surface (F6) hydric soil indicators.

Palustrine Forested wetlands (PFO) – Four wetlands encountered within the Wetland Delineation Survey Area contained characteristics representative of a PFO wetland. PFO wetlands are sometimes referred to as swamps and are dominated by tree species 20 feet or taller with an understory of shrub and herbaceous species. Understory vegetation presence readily varies, as the upper canopy of tree species may block light needed for extensive vegetative growth in the understory. Coniferous swamps, lowland hardwood swamps, and floodplain forests are common types of PFO wetlands. Soils in PFO wetlands are typically inundated or saturated early spring into summer. Some PFO wetlands may dry up entirely, which reveal water stain marks along the trunks of exposed tree species and shallow, buttressed root systems indicative of periods of heavy inundation events.

PFO wetlands encountered in the Facility Site were typically dominated by American elm, swamp white oak, black willow, and red maple (*Acer rubrum*) in the tree stratum; gray dogwood and Morrow's honeysuckle in the shrub stratum; Canada anemone (*Anemone canadensis*), greater bladder sedge (*Carex intumescens*), jewelweed, and brome sedge (*Carex bromoides*). Evidence of wetland hydrology for these resource areas includes saturation, high water table, microtopographic relief, saturation visible on aerial imagery, geomorphic position, and the FAC-neutral test. PFO wetlands typically displayed silty clay loam and clay loam soils. Variations of characteristics in the soil matrices generally demonstrated Depleted Matrix (F3) and/or Redox Dark Surface (F6) hydric soil indicators.

Palustrine Unconsolidated Bottom (PUB) wetlands – Three wetlands encountered within the Facility Site were observed to contain characteristics representative of PUB wetland communities. PUB wetlands are characterized by surface water and have less than 30 percent vegetative cover and at least 25 percent cover of particles smaller than stones. As these are bodies of standing water, evidence of wetland hydrology was decisively present with standing water ranging from approximately two to four feet in depth. Dominant vegetation near the perimeter of PUB wetlands included reed canary grass and softstem bulrush (*Schoenoplectus tabernaemontani*). Evidence of wetland hydrology includes surface water, high water table, saturation, inundation visible on aerial imagery, geomorphic position, and the FAC-neutral test.

Riverine Streams (RUP, RIN, REPH) – Nine streams were delineated within the Facility Site. Classification of streams were dependent on a temporal description of their usual level of flow regimes. Riverine perennial streams (RUP) tend to flow all year, except during severe drought conditions. RUP streams can flow below the water table and receive groundwater flow sources from springs or groundwater seepages on slopes. Riverine intermittent streams (RIN) flow only during certain times of the year from alternating springs, snow melts, or from runoff from seasonal precipitation events. RIN streams can flow above or below the water table. Riverine ephemeral steams (REPH) flow sporadically and are entirely dependent on transient precipitation from storm events or from periodic snow melts. These streams tend to flow above the water table and are often found as drainage features adjacent to, or within, the headwaters of a more major stream system.

Streams encountered within the Facility Site were mostly intermittent in nature along gentle to moderate gradients (zero to four percent). Stream widths ranged from 2 to 30 feet. Streams generally contained channel substrates of silt, clay, cobble, gravel, and sand with probed stream depths in the range of 0 to 24 inches. Most streams were determined to lack substantial features to permit the prevalence of aquatic ecologies. Only a small number of streams within the Facility Site were determined to contain significant aquatic habitat to establish and support fish and wildlife populations. Most of the stream systems supporting aquatic habitats were found to be perennial, as an annual flow regime allows for a more readily established life cycle.

Further characterization of the wetlands and streams can be found in Appendix 14-1. Wetland and Stream Delineation Report.

Mapping by the New York State Department of Environmental Conservation (NYSDEC) depicts one NYSDEC-mapped wetland within the Facility Site. One of the wetlands delineated by TRC, W-BF-6, inside the Facility Site is associated with this mapped NYSDEC freshwater wetland. The Applicant received the JD from ORES on June 1, 2021 (Appendix 14-3). In addition to wetland W-BF-6, the ORES Jurisdictional Determination also considers six wetlands not previously mapped by NYSDEC to fall under NYS jurisdiction, including wetlands W-BF-5, W-BF-11, W-NSD-1, W-NSD-7, W-NSD-9, and W-NSD-10. The Applicant also received a PJD from the USACE on October 22, 2021. All regulated wetlands located within the Facility Site are listed in Table 3 of Appendix 14-1. All wetland features delineated during the onsite wetland surveys are shown on Figure 14-1, while the existing mapped wetlands are shown in Figure 13-2 in Exhibit 13.

14(c) Qualitative and Descriptive Wetland Function Assessment

Past efforts to utilize best professional judgements to interpret wetland functions and values would often be unorganized, unpredictable, and legally difficult to defend and document. In response, the USACE developed a supplement to the *Highway Methodology Workbook* entitled *Functions and Values: A Descriptive Approach* (Supplement) (USACE, 1999). This assessment example was created to collect and describe the functions and values assessment of wetlands in a measurable and un-biased perspective. It is for these reasons that the Applicant elects to utilize elements of the USACE, Highway Methodology, and processes outlined in the Supplement, to conduct a qualitative assessment of the physical characteristics of the wetlands and identify the functions and values they exhibit.

The functions and values of wetlands are the favorable services that a wetland provides to its surrounding environment and towards the benefit of human society (USACE, 1999). Functions and values operate as the result of specific biological, chemical, and physical characteristics within the wetland, and are the basis of many complex relationships maintained between the wetland, the watershed, and the local ecological and human environments.

Assessing a specific wetland's function and values is needed to determine the overall effects an impact or alteration may have on a wetland feature. Ultimately, such a measurement aids in establishing the appropriate type and amount, if any, of possible mitigation after impacts to a wetland occur. More recently, the assessment of the functions and values for wetlands have been used to consider wetland features for their value and functional significance, to better

ensure that wetlands with specific and higher functions or values receive proper vindication. Toward that end, a wetland functions and values assessment was undertaken for the Facility Site. A comprehensive description of the functions and values of all wetlands delineated follows.

The thirteen functions and values that are considered by the USACE through their Supplement are listed below. The list includes eight functions and five values. Although the functions and values are not the only wetland functions and values possible, they do represent the current working suite provided by the USACE for regulatory consideration and do match with the wetland benefits described within the Environmental Conservation Law (ECL) under Article 24. As such, they are thought to provide an objective and meaningful representation of the wetland resources associated with the Facility. Based on processes outlined in the Supplement, a spreadsheet was created to include several basic considerations ("qualifiers") that help identify the functions and values provided by wetlands. These considerations are numerous, but include observed vegetation conditions, hydrologic conditions, size, adjacent area conditions, and the availability of public access. To see the spreadsheet and receive more detail on the functions and values assessment, See Appendix 14-2. for the Riverside Wetland Functions and Values Assessment. Each wetland's functions and values were evaluated based on data collected during field delineation meeting specific conditions. Various wetland characteristics were identified for each wetland. Based on these data, the functions and values provided were determined.

Wetland Functions

Wetland functions are the properties or process of a wetland ecosystem which aid in promoting a homeostatic natural environment in the absence of human interference. A wetland's specific function(s) results from both organic and inorganic components, including physical, geologic, hydrologic, chemical and biological systems. These components include all processes necessary for the self-maintenance of the wetland ecosystem and relate to the ecological significance of wetland properties without regard to subjective human values. The eight functions defined by the Supplement, including short descriptions defining each function, are as follows:

1. Flood-flow Alteration – This function applies to the effectiveness of the wetland in reducing flood damage by containing an enhanced ability to store floodwaters for an extended period following heavy precipitation events.

2. Groundwater Recharge/Discharge – This function defines the potential for a wetland to act as a source of groundwater recharge and/or discharge. Recharge describes the potential for the wetland to contribute water to an underlying aquifer. Discharge relates to the potential for the wetland to act as a source of groundwater transfer to the surface i.e., springs and hillside seeps.
3. Sediment/Pollutant retention – This function describes the ability of a wetland to hinder the degradation of water qualities downstream. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens based on its geomorphic position, connectivity, soil thickness, and other physical characteristics.
4. Fish and Shellfish Habitat – This function defines a wetland's ability to contain or influence suitable habitats for fish and shellfish species.
5. Sediment/Shoreline Stabilization – This function defines a wetland's ability to effectively stabilize streambanks and shorelines against future erosion events.
6. Production Export – This function relates to a wetland's ability to produce food or usable products for organisms, including humans, within the trophic levels associated with the watershed.
7. Nutrient Removal/Retention/Transformation – This function relates to the wetlands containing the ability to prevent excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.
8. Wildlife Habitat – This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and their habitat for various types and populations of animals typically associated with wetlands and their periphery. Resident and migrating species were considered along with the potential for any State or Federally listed species occurring within the target wetland.

Wetlands within the Facility Site displayed multiple functions based on their specific site characteristics. All delineated wetlands were determined to have the ability to provide some function of flood-flow alteration, sediment/toxicant/pathogen retention, and nutrient removal/retention/transformation. The primary functions displayed by wetlands within the Facility Site include:

- Wildlife Habitat

- Groundwater Recharge or Discharge
- Production Export
- Sediment/Toxicant/Pathogen Retention
- Flood Flow Alteration

Wetland Values

Values are the societal benefits stemming from one or more of the functions associated with a wetland. Most wetlands have corresponding public value to an assessable degree. The value of a wetland function, or a combination of functions, is based on the interpretative judgement of the significance attributed to the wetland through various functions it provides. The five values defined by the Supplement and adopted for use in this assessment, including short descriptions defining each value, are documented below.

1. Recreation – This value indicates if the wetland is effective in providing or assisting in the establishment of recreational opportunities such as boating, fishing, hunting, and other leisurely pursuits. Recreation in this capacity includes both consumptive and non-consumptive activities. Consumptive activities consume or diminish the plants, animals, or other resources that are naturally located in the wetland, whereas non-consumptive activities do not.
2. Education/Scientific – This value considers the effectiveness of the wetland as a site for public education or as a location for scientific research.
3. Uniqueness/Heritage – This value applies to wetlands that contain a singular or rare quality. Special qualities may include such things as the wetland's history and the presence of archaeological sites, historical events which may have taken place at the wetland, or unique plants, animals, or geologic features located within, or supported by, the wetland feature.
4. Visual Quality/Aesthetics – This value relates to the visual and aesthetic qualities of the wetland.
5. Threatened or Endangered Species Habitat – This value related to the effectiveness of the wetland or associated waterbodies to specifically support threatened or endangered species.

Values, providing societal benefits, are limited within this Study Area due to the wetlands being largely inaccessible to the public. The primary values displayed by wetlands within the Facility Site include:

- Recreation
- Visual Quality and Aesthetics

For more detail on the functions and values assessment please see Appendix 14-2. Riverside Wetland Functions and Values Assessment.

14(d) Off-Site Wetlands Hydrological and Ecological Influence Analysis

Wetlands outside of the Facility Site were approximated within at least 100 feet of the Limit of Disturbance (LOD) using aerial imagery, review of wetland mapping databases maintained by the National Wetlands Inventory (NWI) and NYSDEC, reference to onsite observations, and an analysis of publicly available topographic contour mapping. The approximation of wetlands within at least 100 feet of the LOD was utilized to determine hydrological connections to these offsite wetlands, including offsite NYS-jurisdictional wetlands protected by NYSDEC that may be near Facility components, but outside the Facility Site. Thirteen approximated offsite wetlands were identified. These wetlands were delineated using aerial imagery and publicly available data to identify approximate wetland boundaries where property access was not granted. All approximated wetlands were hydrologically connected to delineated wetlands or were extensions of field delineated wetlands within the Facility Site as noted by TRC during onsite survey efforts. One of the offsite approximated wetlands appears to have a hydrological connection to a NYS-jurisdictional wetland. Approximated wetland A-10 is a PEM wetland that is located outside of the Facility Site and within 100 feet of the LOD. This wetland is hydrologically connected offsite to delineated wetlands W-NSD-7 and W-NSD-9, both of which were deemed NYS-jurisdictional wetlands per the Wetland JD received from ORES on June 1, 2021. Approximated wetlands have similar functions and values and characteristics to those wetlands delineated within the Facility Site, described above in Section 14(b).

14(e) Avoidance of Impacts on NYS Wetlands and Adjacent Areas

TRC delineated a total of 23 wetlands within the survey area of the Facility Site. ORES provided the Applicant with a JD regarding state-regulated wetlands and streams on June 1, 2021 (Appendix 14-3).

The Facility design process used information from the wetland and waterbody delineation to place components where they would avoid and/or minimize impacts to NYS-jurisdictional wetlands (and their 100-foot adjacent areas) and waterbodies wherever possible. The current Facility layout avoids permanent impacts to six of the seven NYS-jurisdictional wetlands and waterbodies by locating Facility solar array structures and other Facility components outside the delineated features to the maximum extent practicable. In addition, haul roads and collection lines were routed around delineated features. The Facility is designed to avoid/minimize impacts to these wetlands by siting solar arrays, racking systems, collection lines, and all ancillary features at least 100 feet away from the wetland boundary (Appendix 5-1 Issued for Permitting [IFP] Design Drawings). Where non-jurisdictional wetlands are encountered and must be impacted by Facility components, the narrowest and/or smallest portion of the wetlands will be utilized.

14(f) Minimization of Impacts on NYS Wetlands and Adjacent Areas

Impacts to NYS-jurisdictional wetland have been minimized and avoided to the maximum extent practicable. The Applicant carefully designed the Facility to avoid and minimize impacts to NYS-jurisdictional wetlands and the adjacent areas. Through avoidance and minimization efforts including a thorough design process and multiple drafts and revisions of the Facility, the Applicant will only impact 0.797 acres of NYS-jurisdictional wetland W-BF-5 through access road construction and culvert installation. This access road is necessary for the construction of the Facility and has been sited in the narrowest point of the wetland in order to minimize impacts. Impacts to NYS-regulated adjacent areas total 26.845 acres. Facility components sited in regulated adjacent areas include solar panels, access roads, laydown yards, and security fences. Vegetation clearing in these areas is also necessary to prevent shading on nearby solar arrays. Wherever practicable, selective tree clearing is proposed which does not involve stump removal or associated ground disturbance.

(1) Limitations for Avoidance

The Facility is designed to avoid/minimize impacts to wetlands and regulated adjacent areas by siting solar arrays, racking systems, collection lines, and all ancillary features at least 100 feet away from the wetland boundary (Appendix 5-1 Issued for Permitting [IFP] Design Drawings). The Applicant will only impact 0.797 acres of NYS-jurisdictional wetland W-BF-5 through access road construction and culvert installation. This access road is necessary for the construction of

the Facility and placement of Project components north of wetland W-BF-5 in open agricultural fields. The proposed access road has been sited in the narrowest point of the wetland in order to minimize impacts.

Under the current Facility Site design, there are minimal impacts to NYS-jurisdictional wetlands and adjacent areas. Existing State-mapped wetlands and adjacent areas have been avoided with the siting of Facility components.

(2) Minimization Measures

The Applicant considered all plausible alternative routing and siting options for NYS-jurisdictional wetland crossings, utilizing narrow crossing locations and existing crossings wherever possible. All alternatives regarding Facility design were examined and the current design incorporates these alternatives. NYS-jurisdictional wetland impacts have been minimized through careful design and study of the Facility Site.

(3) Wetland Function Considerations in Design and Siting

The Facility was designed and sited to minimize impacts to NYS wetlands based on the functions and values of the wetlands. As detailed in Table 14-1, impacts to forested wetlands will be minimized through selective tree clearing, which will not involve any grading or grubbing of tree stumps. Impacts to wetlands that are seasonally saturated/inundated will be minimized. Facility components sited within wetlands were predominantly sited in PEM wetlands within agricultural fields, which typically have lower functions and values.

(4) Wetland Function in Adjacent Areas

The Facility layout and siting will improve the functions and values of the adjacent areas on-site. Adjacent areas provide a valuable protection buffer for the wetlands and often share the functions and values of the wetlands they surround. According to 19 NYCRR §900-2.15(g), the proposed Facility components sited within State-regulated adjacent areas are all considered to be “Allowable” since the NYS-jurisdictional wetland is classified as “Class III, IV, or Unmapped > 12.4 acres”. Facility components sited within State-regulated adjacent areas are primarily limited to solar panels, security fencing, inverters, access roads, and laydown yards. Selective tree clearing is also proposed which will not cause ground disturbance. Existing functions in adjacent areas are minimal due to historical farming. The functions and values will be increased

by the Facility because all impacted adjacent areas will be removed from agricultural production and planted with a native seed mix which will stabilize the ground, minimize erosion, increase biodiversity and wildlife habitat, and restore the land post-construction. This will also improve the ecological richness and vegetative cover density leading to an increase in the various functions and values associated with impacted State-regulated adjacent areas.

14(g) Wetland Restoration and Mitigation Plan

As described throughout this Exhibit, impacts to wetlands and waterbodies have been avoided and minimized to the extent practicable. There are no impacts to waterbodies as part of the Facility. Specific impacts deemed jurisdictional to the USACE (e.g., grading, concrete pads) are less than 0.10-acre, therefore no compensatory federal mitigation is required. Impacts to NYS-jurisdictional wetlands total 0.797 acre (34,728.3 square feet) related to access road and culvert installation. Selective tree clearing is proposed and amounts to 0.628 acres of impact. Selective tree clearing does not require mitigation in a Class III, IV or Unmapped >12.4-acre wetland. Additionally, an impact of 0.143 acres related to the security fence and LOD is associated with the overall wetland impact, which is also an allowable activity per 19 NYCRR §-2.15(g). Therefore, the total impact required for mitigation is 0.026 acre. The wetland mitigation requirements set forth in 19 NYCRR §-2.15(g) require a 1:1 mitigation ratio for impacts related to access roads in a Class III, IV, or Unmapped >12.4-acre wetland.

The Applicant has included a draft Wetland Restoration and Mitigation Plan as Appendix 14-4. The level of detail is conceptual in stage and will be updated in accordance with § 900-10.2(f) of the 94-c regulations as part of a Final Wetland Restoration and Mitigation Plan to be submitted at a later date. The Applicant understands that there are currently no options for in-lieu fee purchase of wetland mitigation credits in the watershed where the Facility is located (Chaumont-Perch watershed (HUC 04150102)); however, this is the optimal choice for wetland mitigation. Therefore, if the purchase of wetland mitigation bank credits becomes available prior to implementation of the Final Wetland Restoration and Mitigation Plan, the Applicant will evaluate the feasibility of purchasing wetland mitigation bank credits in place of the on-site wetland mitigation plan through coordination with ORES. On-site restoration will still occur at the Facility Site in accordance with the applicable requirements of Section 94-c.

Conclusions

TRC delineated a total of 23 wetlands within the survey area of the Facility Site. The Facility design process used information from the wetland and waterbody delineation to place components where they would avoid and/or minimize impacts to NYS-jurisdictional wetlands (and their 100-foot adjacent areas) wherever possible. Since USACE-jurisdictional wetland impacts are limited to 0.033 acre (1,437 square feet), no compensatory federal mitigation is required. However, impacts to NYS-jurisdictional wetlands include 0.026 acre which will require compensatory mitigation. A draft Wetland Restoration and Mitigation Plan has been developed in accordance with § 900-2.15(g). This plan will detail the wetland mitigation or enhancement within the Facility Site, with an intent to reduce the presence of invasive species and increase the wetland's biodiversity. The Applicant will provide the Final Wetland Restoration and Mitigation Plan as a pre-construction compliance filing after further consultation with ORES and NYSDEC. Additionally, the Applicant intends on planting native vegetation with wetland plant mix that includes local species to ensure temporary impacts to wetlands are minimal. The Facility has been designed to comply with 19 New York Codes, Rules and Regulations (NYCRR) § 900-2.15 and the Uniform Standards and Conditions (USCs) and impacts related to wetlands have been avoided and minimized to the maximum extent practicable.

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