Fort Covington Solar, LLC

Fort Covington Solar

Matter Number: 23-00052

§900-2.14 Exhibit 13

Water Resources and Aquatic Ecology

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Acronym List

bgs	below ground surface
BMPs	best management practices
CWA	Clean Water Act
DO	dissolved oxygen
eNOI	electronic Notice of Intent
EM	Environmental Monitor
EPC	Engineering, Procurement, and Construction
ERM	Environmental Resource Mapper
FOIL	Freedom of Information Law
GPM	gallons per minute
HDD	horizontal directional drilling
HUC	Hydrologic Unit Code
ISMCP	Invasive Species Management and Control Plan
JD	jurisdiction determination
LOD	limit of disturbance
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDPS	New York State Department of Public Service
ORES	Office of Renewable Energy Siting
POI	Point of Interconnection
SPC	Spill Prevention, Containment, and Control
SPDES	State Pollutant Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USCs	Uniform Standards and Conditions
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

WOTUS	Water of the United States
WQC	Water Quality Certification

Glossary Terms

Applicant:	Fort Covington Solar LLC, a wholly owned subsidiary of Boralex US Development LLC, 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:	Refers to the proposed 250-megawatt utility scale solar generating Facility. The proposed Facility components to be constructed for the generation, collection, and distribution of energy for the Fort Covington Solar Facility include solar panel modules, electrical collection system, collection substation, point of interconnection (POI) switchyard, access roads, laydown/staging areas, and other ancillary facilities.
Facility Site:	A boundary area encompassing all Facility components and all participating parcels (58 total parcels) within the Town of Fort Covington, Franklin County, NY, totaling 5,362.9 acres (Figure 2-1).
Study Area:	In accordance with the Section 94-c Regulations, the Study Area for the Facility includes a radius of 5 miles around the Facility Site boundary, unless otherwise noted for a specific resource study or Exhibit. The 5-mile Study Area encompasses 92,151.4 acres, inclusive of the 5,362.9-acre Facility Site.
Limits of Disturbance (LOD):	The portion of the Facility Site where the potential for construction impacts and site disturbance occurs, totaling approximately 1,759.8 acres.
Fenced Area:	Refers to entire area located within the Facility fencing, totaling approximately 1,507.4 acres.

Exhibit 13: Water Resources and Aquatic Ecology

This Exhibit provides information required in accordance with § 900-2.14 of the Section 94-c Regulations.

9(a) Groundwater

(1) Hydrologic Character

As described in Exhibit 10. *Geology, Seismology, and Soils*, the Applicant performed a geotechnical investigation at the Facility Site which is included as Appendix 10-1. Subsurface conditions differed between areas of the Facility Site north and south of NY County Route 4. During the investigation, groundwater was encountered at 12 of the 30 boring locations (Boring Locations B-04, B-05, B-10, B-12, B-13, B-21, B-22, B-23, B-30, B31, B-32, B-34) at an average depth of approximately 6.5 feet below ground surface (bgs) at the time of field exploration. Groundwater was not encountered at any other boring locations prior to auger refusal depths. As described in Exhibit 10, auger refusal, which typically represents the apparent top of weathered rock or bedrock, was encountered in 11 of the 30 boring locations between 3.5 to 17 feet bgs. Refusal was also encountered in 9 of the 16 test pits investigated shallower than 10 feet bgs. Conditions encountered during the geotechnical investigation are generalized in Table 13-1 below.

Table 13-1. Summary of Difficult Drilling and Auger Refusal Depths

Test Boring Location	Depth to Very Dense Soils[1,2/]Difficult Drilling (ft)	Depth to Auger Refusal (ft)[2]
B-01	N/A	N/A
B-04	8	N/A
B-05	N/A	N/A
B-06	N/A	N/A
B-07	N/A	N/A
B-08	N/A	N/A
B-10	14	14
B-11	8	N/A
B-12	6	N/A
B-13	N/A	N/A
B-15	3	9
B-16	4	4

Table 13-1. Summary of Difficult Drilling and Auger Refusal Depths

Test Boring Location	Depth to Very Dense Soils[1,2]/Difficult Drilling (ft)	Depth to Auger Refusal (ft)[2]
B-17	N/A	N/A
B-18	N/A	N/A
B-19	3	4
B-20	N/A	N/A
B-21	N/A	N/A
B-22	N/A	N/A
B-23	N/A	4
B-24	6	6
B-26	4	N/A
B-27	3	3.5
B-28	4	9
B-29	4.5	5.5
B-30	7	N/A
B-31	N/A	17
B-32	N/A	15
B-33	3	4
B-34	N/A	N/A
B-35	N/A	N/A

[1] Very dense soils are defined as those with a standard penetration resistance (N-Value) greater than 50.
[2] Soil borings were advanced to approximately 15 feet below ground surface or until auger refusal. Values of N/A indicate the parameter was not observed.

Publicly available data sources were also reviewed, including the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey Tool. The Web Soil Survey provides depth to restrictive layers, such as bedrock, and depth to water table data by soil map unit for a given area of interest. According to the USDA NRCS Web Soil Survey, the average representative depth to the water table within the Facility Site is over 200 centimeters (6.6 feet) bgs. According to the Web Soil Survey, the depth to bedrock within the Facility Site is also over 200 centimeters (6.6 feet) bgs. Figure 10-C of Exhibit 10. *Geology, Seismology and Soils* illustrates anticipated depth to shallow groundwater and depth to bedrock within the Facility Site based on NRCS data.

During construction, temporary dewatering may be required if perched water, groundwater, or seepage is encountered. Based on the findings of the Geotechnical Engineering Report included as Appendix 10-1, the development of perched water conditions may be encountered within standard excavation depths for foundations or utilities at shallower depths than those encountered during the test boring investigation, particularly during wet periods or in low-lying areas. Groundwater conditions are representative of the conditions at the date and time of the geotechnical investigation and are not representative of daily, seasonal, or long-term fluctuations, development of perched conditions, ponding of water in low lying areas during wet periods, or flood stage conditions. If perched groundwater or surface runoff are encountered during construction, sumps and pumps will be sufficient to control groundwater and provide stable working conditions. Additional details regarding groundwater, bedrock, and subsurface characteristics within the Facility Site can be found in Exhibit 10. *Geology, Seismology, and Soils*.

(1) Private Well Survey Results and Groundwater Aquifers and Groundwater Recharge Areas

Summarized in this section are the locations of mapped and identified groundwater sources. As described in Section 13(a)(3) below, construction and operation of the Facility will comply with the Uniform Standards and Conditions (USCs) under Section 94-c.

Landowners of tax parcels within 1,000 feet of the Facility Site boundary were contacted in accordance with Section 94-c Regulations to collect information regarding Facility-adjacent private wells. Well survey questionnaires were mailed on December 1, 2023, and included questions regarding the size, yield, depth, and water quality obtained from their property's well(s). Additionally, recipients of the questionnaire were asked to locate their wells in relation to buildings on the property, describe any installed water treatment systems, and to identify known issues associated with wells on the property. The recipients were provided a phone number to reach a TRC consultant with questions, as well as a stamped self-addressed envelope to assist with returns to TRC on behalf of the Applicant.

TRC received 121 total responses to the survey questionnaire (see Appendix 13-2). Of the 121 survey responses received, 64 respondents indicated the presence of wells on their property. A total of 79 wells were accounted for by the 121 received responses. Fifty respondents reported one well, 11 respondents reported two wells, one respondent reported three wells, and one respondent reported four wells. Of the responses received, 53 wells are reported to be used daily,

and 10 wells are reported to be not in use. Fifty-eight survey responses indicated no wells on the property. Depths of wells were reported between three feet and 350 feet with the average being 85 feet. Depths were unknown for 21 wells. Respondents who identified wells located on their parcel most frequently indicated the water quality to be “good”. See Figure 13-1 for approximate private well locations as determined by survey responses. A blank copy of the well survey questionnaire distributed for the Facility is included in Appendix 13-2.

Primary Aquifers

The Facility Site does not overlap any New York State Department of Environmental Conservation (NYSDEC)-listed primary aquifers. The closest primary aquifer is the Fulton Aquifer, located approximately 139.5 miles southwest of the Facility Site’s southern limit in Oswego County, New York (NYSDEC, n.d.b.). Primary aquifers are defined by the United States Geological Survey (USGS) and the NYSDEC as “*highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems”* (NYSDEC, 1990). No impacts to primary aquifers are expected as a result of the Facility’s construction or operation.

Principal Aquifers

The Facility Site does not overlap any NYSDEC-listed principal aquifers. The nearest principal aquifer is NYSDEC principal aquifer #178, located approximately 0.63 mile south of the Facility Site’s southern boundary. This aquifer is an unconfined sand/gravel aquifer. Per the NYSDEC, principal aquifers are highly productive aquifers whose geology suggests abundant potential water supply but as opposed to primary aquifers, are not intensively used as water supply sources by major municipalities. No impacts are anticipated to the nearby principal aquifer, and appropriate erosion prevention and sedimentation control measures will be implemented during construction and operation. Shallow excavations for foundation slabs and construction of utilities may encounter perched groundwater in low lying areas or during wet periods. If perched groundwater or surface runoff are encountered, sumps and pumps will be sufficient to control groundwater and provide stable working conditions.

The NYSDEC defines a principal aquifer as having the capacity of providing 10 to 100 or more gallons per minute, and not being as heavily utilized as primary aquifers. The USGS defines a principal aquifer as “a regional extensive aquifer or aquifer system that has the potential to be used as a source of potable water” (USGS, 2018).

According to the *Principal Aquifers of the United States* (USGS, 2018), the Facility Site is within two USGS-listed principal aquifers. These aquifers are identified as a New York sandstone aquifer and New York and New England carbonate-rock aquifer and cover the entirety of the Facility Site. No impacts are anticipated to these aquifers, as they are deeper rock aquifers, and would thus not be impacted by shallow earth works from project. Appropriate erosion prevention and sedimentation control measures will be implemented during construction and operation. To prevent impacts to groundwater beneath the Facility Site, the final bearing elevation of all spread footings will be established a minimum two feet above highest anticipated groundwater levels, including possible flood stage conditions.

Groundwater Aquifers and Recharge Areas

The overlapping principal aquifer and groundwater wells are mapped in Figure 13-1, in addition to wellhead and aquifer protection zones and groundwater flow direction within a 500-foot radius of the Facility Site. Details of groundwater aquifers and recharge areas were obtained through the NYSDEC Division of Water Resources, Bureau of Water Management. Specific information pertaining to local mapped groundwater aquifers is in the above sections. Information regarding groundwater wells is described below.

The nearest USGS groundwater monitoring site (USGS 445511074103901), local number F-60, is located in Burke, NY, approximately 12.8 miles east of the Facility Site. According to data collected at this USGS groundwater site, the average annual depth to the groundwater level is approximately 3.41 feet bgs, with seasonal variation of 1.21 to 6.31 feet bgs.

To identify existing public groundwater wells within the Facility Site, a Freedom of Information Law (FOIL) (Public Officers Law, Article 6 Sections 84-90) request was sent to the NYSDEC on December 11, 2023 to identify the locations of existing water wells and data on wells within the Study Area. This request was made to identify information regarding groundwater wells within the Study Area, such as descriptions and depth of potentially encountered bedrock, and construction logs (Appendix 13-1). A response, including complete reports for wells within the Study Area, was received from the NYSDEC on December 11, 2023. The response indicated that 72 NYSDEC wells are located within the Study Area. The average depth of these wells is 92.60 feet bgs (SD 70.79 feet bgs). The depth to ground water was provided for 66 NYSDEC wells. The average depth to groundwater for these 66 wells was approximately 18.24 feet bgs (SD 10.59 feet bgs).

The depth to bedrock was provided for 39 NYSDEC wells. The average depth to bedrock for these 39 wells was 53.92 feet bgs (SD 19.71 feet bgs). These wells are depicted in Figure 13-1.

The NYSDEC's Water Well Program Information Search Wizard and publicly available NYSDEC Water Wells data on the NYSDEC INFOLocator (NYSDEC 2024a; NYSDEC 2024b) were also consulted to obtain well information. The results of the search concluded that there are 35 NYSDEC water wells located within 1,000 feet of the Facility Site, with locations distributed around the Facility Site perimeter (inclusive of the 72 public wells identified from the FOIL request described above). The 35 wells within 1,000 feet of the Facility Site are listed below by NYSDEC Well ID:

- F000381
- F000449
- F000469
- F000537
- F000733
- F000764
- F000778
- F000855
- F000862
- F000863
- F000864
- F000984
- F001001
- F001002
- F001029
- F001031
- F001058
- F001059
- F001063
- F001190
- F001195
- F001274
- F001299
- F001386
- F001480
- F001591
- F001722
- F001724
- F001833
- F001835
- F001923
- F001984
- F001985
- F002193
- F002199

The average depth of these wells is 69 feet and the average depth to groundwater is 17 feet, with an average recorded yield of 9.2 gallons per minute (GPM). The location of all groundwater wells discussed in this Section are shown on Figure 13-1. According to the NYSDEC and private well survey responses, there is one well within 100 feet of proposed access roads or the collection system. The well (F001029) is within 12 feet of an overhead collection line. There are two wells located within 200 feet of solar pier/post driving locations; one is within 13 feet and the other is within 131 feet.

The private well survey indicated there are no private water supply wells nor water supply intakes within 200 feet of proposed pile-driving. Fifteen drinking water intakes were identified within 500

feet of proposed horizontal direction drilling (HDD) locations and will be affected by HDD. Blasting is not anticipated to be proposed for the Facility; therefore, no impact on active water supply wells nor water supply intakes located within 1,000 feet of the Facility are anticipated from blasting.

The Applicant proposes to utilize HDD in 65 locations. This method would be used where Facility components would cross public roadways or wetland or stream resources (see HDD crossings in Appendix 5-1: *Civil Design Drawings* of Exhibit 5: *Design Drawings*). Based on the responses to the private well survey, there are 15 private water supply well(s) located within 500 feet of proposed HDD locations. Ten of these wells are owned by participating landowners who are in a lease agreement with the Applicant. Five of these wells are owned by non-participating landowners.

During proposed HDD activities, bore location depths will be determined on a case-by-case basis depending on several factors including soil and bedrock composition, and sensitive resources nearby (water wells, surface water). Drilling pressure would be continuously monitored for increases in pressure, which could indicate the presence of a seep. Bore pits will be enclosed by erosion control measures to prevent the seep of slurry from the bore location. As HDD techniques will depend on the installation contractor, it is anticipated that an *Inadvertent Return Plan* for HDD will be prepared as a pre-construction document.

(2) Impacts on Groundwater Quality and Quantity

No permanent impacts to any aquifers or groundwater within a one (1)-mile radius of the Facility Site are anticipated to occur due to the Facility's construction and operation. As with construction of similar facilities, potential for minor and temporary impacts to groundwater will be minimized through implementation of best management practices (BMPs). These best management practices are proposed and detailed in the Stormwater Pollution Prevention Plan (SWPPP) provided as Appendix 13-3.

The potential introduction of pollutants from inadvertent discharge of chemicals during construction of the Facility, which can result from equipment mechanical failures or refueling spills, have the potential to cause temporary impacts to groundwater.

However, temporary impacts to groundwater are not anticipated due to the implementation of required avoidance, minimization, and mitigation measures to all active water supply wells and ground water aquifers or recharge areas, to which Facility construction efforts will strictly adhere.

These measures are detailed in the Facility's Spill Prevention, Containment, and Control (SPC) Plan, which will be submitted as Compliance Filing prior to construction. The BMPs and SWPPP described throughout the application will also be submitted as Compliance Filing prior to construction (Appendix 13-3).

While unlikely, certain construction activities such as the installation of substation and solar pile foundations, access roads, collection lines, and temporary staging areas could potentially result in impact to groundwater. The implementation of the SWPPP will also minimize impacts to the maximum extent practicable.

A total of 7.51 acres (0.50% of the fenced area or 0.43% of the limit of disturbance [LOD]) of impervious surface will be added to the existing landscape through placement of inverter pads and splice boxes and installation of the collection substation. Such impervious surfaces will be present in small areas throughout the Facility Site and will have minimal impact on regional groundwater recharge. With methods approved by the NYSDEC, construction of impervious surfaces is a common feature of construction throughout New York State. Pervious surfaces in the form of various vegetation types will be present throughout the Facility Site, including beneath the solar arrays. Such pervious surfaces allow for uninterrupted runoff of stormwater, as currently occurs under existing site conditions. In areas of the site currently utilized for agricultural purposes, the proposed vegetated ground cover beneath the arrays will allow for greater infiltration than areas regularly disturbed by agricultural practices.

Minimal water use is anticipated during Facility construction. The Applicant will consult the selected Engineering, Procurement, and Construction (EPC) Contractor to identify sources and locations for water necessary to construction activities. Concrete mixing trucks will have designated washout areas as shown in the typical drawings presented on Sheet 62 of Appendix 5-1: *Facility Design Drawings* of Exhibit 5. *Design Drawings*. In accordance with the USCs under Section 94-c, concrete washouts for the Facility will be located and installed to minimize impacts to water resources and will be sited least 100 feet from any wetland, waterbody or stream, and located outside wetland adjacent areas, to the maximum extent practicable. Additionally, waste concrete or wash water will be disposed of at least 100 feet from any wetland, waterbody or stream. Concrete batch plants are not expected to be required for the Facility.

Proposed gravel access roads are impervious surfaces designed to distribute runoff as sheet flow to roadside buffers to infiltrate groundwater. Groundwater can be expected to be encountered in

areas with poorly drained soil profiles, areas above shallow water tables, and areas that contain perched groundwater. Further, the ponding of surface waters due to precipitation may occur in concave areas or areas of open excavation during Facility construction.

Although no impacts to drinking water are anticipated as a result of Facility construction or operation. In accordance with Section 900-6.4(n)(2)(iii) of the USCs, the Applicant will engage a third party to conduct pre- and post-construction water quality testing on lands for which the Applicant has been granted access. Testing will occur within specified distances from disturbances as follows:

- Collection lines or access roads within one hundred (100) feet of an existing, active water supply well on a non-participating property;
- Pier or post installations within two hundred (200) feet of an existing, active water supply well on a non-participating property; and
- HDD operations within five hundred (500) feet of an existing, active water supply well on a non-participating property.

If the results of the pre-construction testing indicate that state standards for potable water are met (10 New York Codes, Rules and Regulations [NYCRR] Part 75, Appendix 75-c), but post-construction testing fails to meet those standards, the Applicant will work in consultation with the affected landowner(s) to reach a solution for the concern. If a new well is constructed it shall be at least 100 feet from collection lines and haul roads, and at least 200 feet from all other Facility components.

Plans for notification and complaint resolution during construction of the Facility for owners/operators of public and private wells within a 1-mile radius of the Facility Site are detailed in the Complaint Management Plan. The Complaint Management Plan will be included in the pre-construction filings of this Application as specified under §900-10.2 of the Section 94-c Regulations. In the unlikely event a local resident believes that their well water has been adversely impacted by the Facility construction or operation, they may file a formal complaint to which the Applicant will respond using the Complaint Management Plan. If, as a result of Facility construction, an active potable water well no longer meets federal or state potable water testing, the Applicant will work with the well owner to reach an agreeable resolution.

Once the Facility is operational, limited areas of ground alteration will be present and will be associated with the switchyard, access roads, and such features as inverters. The majority of Facility-related components present will comprise solar arrays placed above the ground surface. The ground surface below panels will be revegetated and maintained with a mix of native grasses, potentially including pollinator-friendly species. In portions of the Facility Site currently utilized for agriculture, the revegetation will replace the active agricultural uses and associated crop rotation. While agriculture is an important activity and resource throughout New York State, many agricultural practices of the past 50 to 100 years have resulted in unintended effects on water quality, including groundwater, associated with fertilizers and nutrient (phosphorus and nitrogen) loading.

Some levels of phosphorous and nitrogen are naturally occurring in soils. In naturally vegetated landscapes, there is a balance between uptake (by plants) and release (from decaying vegetation). However, on farmed land, where most of the plant material is removed from the fields during harvest, there is little release of these nutrients back into the soil since vegetation decay is minimal. To combat this loss of nutrients, farmers often practice crop rotation with nitrogen fixing plants, like soybean, and/or apply artificial sources of phosphorous and nitrogen in the form of fertilizer. Phosphorus and nitrogen are essential elements for plant life, but when there is too much of it in surface water, it can speed up eutrophication in nearby waterbodies. Eutrophication occurs when there are excessive nutrients in a lake or other body of water, frequently due to runoff from the land, which causes dense growth of plant life and, ultimately, death of animal life from lack of oxygen in rivers and lakes. This accelerated eutrophication can have similar undesirable effects to those of harmful algal blooms, including adverse effects on drinking water supplies, recreation, businesses, and property values.

Excess nitrogen in soils can result in long-term effects as well. Some of the nitrogen within fertilizers breaks down into nitrate, which travels easily through soil. Since nitrate is water-soluble and can remain in groundwater for decades, the addition of more fertilizer over the years has a cumulative effect. When groundwater from agricultural areas finally reaches a wetland, stream, river, pond, or lake, this can also contribute to excessive concentration of nitrogen.

The Facility plans to replant disturbed areas with low-growing, native species that support pollinators, which would continue to support agriculture in the vicinity. This type of permanent ground cover would bind nitrogen and phosphorus in the plant material and keep these nutrients out of surface and groundwater. Native vegetation develops a deeper and more diverse root

system than hay or row crops and would also eliminate the areas of bare soil associated with row crop agriculture, further decreasing runoff that would have the potential to influence surface and groundwater (see Exhibit 15. *Agricultural Resources* for more details on the vegetation cover under consideration). Any on-site herbicide used in support of the Invasive Species Management and Control Plan (ISMCP), included as Appendix 11-1 of Exhibit 11. *Terrestrial Ecology*) is expected to be limited and infrequent, particularly when compared to existing agricultural practices. For these reasons, the Facility is not expected to have an adverse effect on drinking water supplies or groundwater quality or quantity and, in fact, may contribute to groundwater quality improvements over the life of the Facility.

9(b) Surface Water

(1) Surface Water Map

The locations of all federal, state and/or locally regulated surface waters within the Facility Site, which includes areas within 100 feet of areas to be disturbed by construction, are mapped on Figures 13-2 and 13-3. Figure 13-2 displays map features mapped in publicly available data from the NYSDEC, USGS, and National Wetlands Inventory (NWI); while waterbody data collected during onsite wetland and waterbody delineations conducted from October 18 to November 7, 2022, September 11 to September 20, 2023, November 6 to November 13, 2023, November 30, 2023, and March 4 to March 7, 2024 are shown in Figure 13-3.

(2) Surface Water Delineation Survey

Surface waters, as well as general characteristics of the hydrology and character of the delineation Survey Area within the larger Facility Site, were collected as part of wetland and waterbody delineations performed by TRC wetland scientists. Prior to the field survey, TRC conducted a desktop review of publicly available data to determine the potential presence of federal and State-mapped resources within the Facility Site. As part of delineation efforts, TRC identified and delineated 39 streams (totaling 74,258 linear feet), within the Wetland and Waterbody Delineation Area, including 16 perennial streams, seven intermittent streams, and 16 ephemeral streams. Table 13-2 below contains details of all streams and waterbodies delineated within the Wetland and Waterbody Delineation Area.

Table 13-2. Streams Identified Within Wetland and Stream Delineation Area

Stream Field Designation	Flow Regime	Stream Name	Waterbody Identification Number (WIN)	NYSDEC Classification[1] and Standard[2]	Navigable Water
S-AGD-1	Perennial	-	-	B	No
S-AGD-2	Intermittent	-	-	-	No
S-AGD-3	Perennial	Little Salmon River	SLC-29-1	B	Yes
S-JMT-1	Perennial	-	-	D	No
S-JMT-2	Ephemeral	-	-	-	No
S-JMT-6	Perennial	-	-	-	No
S-KCF-1	Perennial	-	-	-	No
S-MJT-1	Perennial	Pike Creek	SLC-31	C	Yes
S-MJT-2	Intermittent	-	-	-	No
S-MJT-3	Intermittent	-	-	-	No
S-MJT-4	Intermittent	-	-	D	No
S-MJT-5	Perennial	-	-	D	No
S-MJT-6	Ephemeral	-	-	-	No
S-MJT-7	Perennial	-	-	D	No
S-MJT-8	Ephemeral	-	-	-	No
S-MJT-30	Intermittent	-	-	-	No

Table 13-2. Streams Identified Within Wetland and Stream Delineation Area

Stream Field Designation	Flow Regime	Stream Name	Waterbody Identification Number (WIN)	NYSDEC Classification[1] and Standard[2]	Navigable Water
S-MWG-1	Perennial	West Branch Deer Creek	SLC-29-2-2	D	Yes
S-MWG-3	Perennial	Salmon River	SLC-29	C	Yes
S-MWG-4	Ephemeral	-	-	-	No
S-MWG-20	Perennial	West Branch Deer Creek	SLC-29-2-2	D	Yes
S-MWG-21	Ephemeral	-	-	-	No
S-MWG-22	Perennial	-	-	-	No
S-MWG-23	Perennial	-	-	D	No
S-RDS-1	Ephemeral	-	-	-	No
S-RDS-2	Perennial	East Branch Deer Creek	SLC-29-2-1	C	Yes
S-RDS-3	Ephemeral	-	-	-	No
S-RDS-4	Ephemeral	-	-	-	No
S-RDS-5	Intermittent	-	-	-	No
S-RDS-6	Ephemeral	-	-	-	No
S-RDS-7	Perennial	-	-	D	No
S-RDS-8	Ephemeral	-	-	-	No
S-RDS-10	Intermittent	-	-	-	No
S-RDS-11	Ephemeral	-	-	-	No
S-RDS-12	Ephemeral	-	-	-	No

Table 13-2. Streams Identified Within Wetland and Stream Delineation Area

Stream Field Designation	Flow Regime	Stream Name	Waterbody Identification Number (WIN)	NYSDEC Classification[1] and Standard[2]	Navigable Water
S-SMS-1	Perennial	-	-	-	No
S-TSO-20	Ephemeral	-	-	-	No
S-TSO-21	Ephemeral	-	-	D	No
S-TSO-22	Ephemeral	-	-	-	No
S-TSO-23	Ephemeral	-	-	D	No

[1]A classification of AA or A indicates that the best use of the stream is as a source of water supply for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing. The best usages of Class B waters are primary and secondary contact recreation and fishing. The best usage of Class C waters is fishing. Waters with a classification of D are generally suitable for fishing and non-contact recreation.

[2] Streams designated (T) indicate that they support trout, while those designated (TS) support trout spawning.

Fourteen streams delineated by TRC within the Wetland and Waterbody Delineation Area correspond to NYSDEC-mapped streams, and two streams (TRC field IDs S-AGD-3 and S-AGD-1) are designated NYSDEC Class B and are therefore protected under NYSDEC standards. Six streams are navigable and would also be protected by the NYSDEC, as confirmed by the jurisdiction determination (JD) received from Office of Renewable Energy Siting (ORES) on June 17, 2024 (Table 13-3). All seven State-regulated streams are assumed to be jurisdictional by the United States Army Corps of Engineers (USACE) since they are connected to Waters of the United States (WOTUS). An additional 16 streams are also assumed jurisdictional by the USACE. Additional information regarding delineation methodology, stream characteristics, as well as mapping and photographs of the water resources onsite, are included in the Wetland and Stream Delineation Report and Wetland and Stream Delineation Report Addendum included as Appendix 14-1 to Exhibit 14. *Wetlands*.

(3) Surface Water Characteristics

The USGS has divided and sub-divided the country into hydrologic units based primarily on drainage basins and watershed boundaries. The Facility Site is located within the Salmon sub-basin (hydrologic unit code [HUC] 04150307), Salmon River (HUC 0415030703) and Little Salmon River watersheds (HUC 0415030702), and Pike Creek (HUC 04150305070305), Town of Fort Covington-Salmon River (HUC 041503070306), East Branch Deer Creek (HUC 041503070303), West Branch Deer Creek (HUC 041503070304), and Town of Bombay-Little Salmon River (HUC 041503070205) sub-watersheds.

The NYSDEC also classifies watersheds more generally within the State of New York. Unlike mapping efforts outlined by the USGS above, the NYSDEC utilizes the definitions of watersheds and drainage basins interchangeably. New York's waters (lakes, rivers, wetlands, streams, etc.) were determined to fall within one of 17 major drainage basins as defined by the NYSDEC. The NYSDEC defines these drainage basins or watersheds as an area of land that drains water into a specific key body of water within or adjacent to the State of New York and includes networks of rivers, streams, and lakes and the land area surrounding them. The NYSDEC classified watersheds are separated by high elevation geographic features (mountains, hills, ridges). Each major drainage basin corresponds to one or more USGS sub-basins (USGS HUC 8-digit codes).

The Facility Site is located within the St. Lawrence River Watershed of New York. This watershed lies at the border of New York State and Canada and between the North Atlantic and the Great

Lakes. Within New York State, the watershed drains the northern and western Adirondack Mountains and the lake plain region of the Saint Lawrence Valley, an area of approximately 5,600 square miles. The Oswegatchie, Raquette, Saint Regis, Grass, and Indian Rivers are the largest rivers in the watershed within New York (NYSDEC n.d.c).

No aquatic invasive species have been previously documented within the Facility Site (iMapInvasives, 2024, NYSDEC, n.d.a.). Based on the NYSDEC's list of Prohibited and Regulated Invasive Species of New York, 10 plant species from the list were observed during wetland and waterbody delineations (NYSDEC, 2014): Morrow's honeysuckle (*Lonicera morrowii*), common buckthorn (*Rhamnus cathartica*), garlic mustard (*Alliaria petiolata*), Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multifora*), spotted knapweed (*Centaurea stoebe*), purple loosestrife (*Lythrum salicaria*), common reed (*Phragmites australis*), Japanese knotweed (*Reynoutria japonica*), and Canada thistle (*Cirsium arvense*) in areas distributed across the Facility Site. No aquatic invasive species listed by the NYSDEC were observed onsite within the Wetland and Waterbody Delineation Area.

The NYSDEC has classified waterbodies state-wide according to their best use, as either AA, AA(T), A, A(T), B, B(T), C, C(T), or D. Class AA or A waterbodies are of the highest water quality. AA or A classes indicate that the best uses of the waterbody are as follows: a source of water supply for drinking, culinary, or food processing purposes, primary and secondary contact recreation, and/or fishing. The best usages of Class B waters are primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. The best usage of Class D waters is fishing. Due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery, or stream bed conditions, the waters will not support fish propagation. These waters shall be suitable for fish, shellfish, and wildlife survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. Waters with classifications A, B, and C may also have a standard of (T), indicating that it may support a trout population, or (TS), indicating that it may support trout spawning events. Certain waters of the state are listed as protected due to their classification level.

Review of NYSDEC mapping via the online Environmental Resource Mapper (ERM) indicates that there are 12 NYSDEC-mapped freshwater wetlands within the Facility Site: NYSDEC IDs FC-35, FC-34, FC-33, FC-41, BO-4, BO-5, BO-1, FC-6, FC-37, FC-39, FC-44, and FC-43. Impacts to these wetlands are anticipated during construction of the Facility Site (see Exhibit 14).

Streams S-AGD-3, S-MJT-1, S-MWG-1, S-MWG-3, S-MWG-20, and S-RDS-2 delineated within the Wetland and Waterbody Delineation Area were identified by ORES as navigable (See Appendix 14-2 of Exhibit 14) and are thus State-regulated. Under Environmental Conservation Law 15-505, New York regulates excavation or placement of fill below the mean high water level in any of the navigable waters of the state, or in marshes, estuaries, tidal marshes and wetlands that are adjacent to and contiguous at any point to any of the navigable waters of the state and that are inundated at mean high water level or tide (The New York State Senate, 2023).

New York State water quality standards are defined in 6 NYCRR Part 703 and 704. In the absence of established water quality standards, numeric guidance values are derived and can be found in the guidance document for Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC 1998). NYSDEC water quality standards for Class B waterbodies are provided in Table 13-3.

Table 13-3. NYSDEC Water Quality Standards

Parameter	NYSDEC Waterbody Classification	Standard
Taste, color, and odor-producing, toxic, and other deleterious substances	B	None in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages.
Turbidity	B	No increase that will cause a substantial visible contrast to natural conditions.
Suspended, colloidal, and settleable solids	B	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.
Oil and floating substances	B	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.

Table 13-3. NYSDEC Water Quality Standards

Parameter	NYSDEC Waterbody Classification	Standard
Phosphorus and nitrogen	B	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.
Thermal discharges	B	All thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water.
Flow	B	No alteration that will impair the waters for their best usages.
pH	B	Shall not be less than 6.5 nor more than 8.5.
Dissolved oxygen (DO)	B	For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/ L.
Dissolved solids	B	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L.
Total coliforms (number per 100 ml)	B	The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively.
Fecal coliforms (number per 100 ml)	B	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.
Source: 6 NYCRR Parts 703.2, 703.3, 703.4, 704.1		

(4) Downstream Drinking Water Supply Intakes

The potential for downstream drinking water impacts were evaluated based on publicly available information regarding water supply intakes in relation to the Facility Site and the construction and operational methods anticipated for the Facility. Based on this review, no impacts to downstream drinking water supply intakes are anticipated.

The USEPA Enforcement and Compliance History Online Database's Detailed Facility Reports were reviewed to consider downstream impacts from construction and operation of the Facility to residents of Fort Covington, NY. As identified by the USEPA, the residents of Fort Covington are serviced by one community water system (NY ID 1600007) owned and operated by the Municipality of Fort Covington. The community water system services 900 of the approximately 1,500 residents of Fort Covington, with the remaining 600 being serviced by transient non-community water systems and private wells. The groundwater well used to service this community water system is located on Frye Road (coordinates 44.969683, -74.493079) which is situated centrally within the Facility Site (Franklin County, 2023; USEPA, 2024). The operation and construction of the Facility is not anticipated to impact the water supply of Fort Covington.

(5) Avoidance of Impacts on State-Regulated Waters

As described above, 34 streams were delineated within the Wetland and Waterbody Delineation Area, seven of which are State-regulated. The Applicant has sited the Facility components to avoid or minimize impacts to State-regulated waters to the maximum extent practicable. Unavoidable impacts to State-regulated waters and the 50-foot buffer are summarized in Table 13-4.

Underground collection lines that cross state-regulated waters have been designed with HDD installation methods, with the exception of one crossing. The Facility will minimally impact one State-regulated stream (S-AGD-1) with 0.020 acre (866 ft^2) of temporary impacts due to underground collection lines (see Sheet 29 of Figure 13-3). The underground collection line crossing of S-AGD-1 will be installed by open trenching. In addition, approximately 0.017 acre (720 ft^2) of LOD overlaps with stream S-AGD-1 and is considered a temporary impact (see Sheet 28 of Figure 13-3). A total of 0.036 acre (1,586 ft^2) of temporary impacts will occur within S-AGD-1. No permanent impacts to the stream will occur.

Table 13-4. State-regulated Streams within the Wetland and Waterbody Area

Stream Delineation ID	Stream Flow Regime	Stream Name and Waterbody Identification Number	NYSDEC Stream Class	Navigable	Cumulative Linear Feet within Survey Area	Total Area of 50-foot Stream Buffers, Acres (ft^2)	Impact Type	Impact	Impacts to State-regulated Streams, Acres (ft^2)	Impacts to State-regulated Stream Buffers, Acres (ft^2)	Figure 13-3 Sheet Number(s)	Site Plan Sheet Number(s)
S-AGD-1	Perennial	Unmapped Little Salmon River Tributary	B	No	2,031	5.79 (252,009)	Temporary	Underground collector line[1]	0.020 (866)	0.125 (5,457)	29	7
								Solar array	0	0.061 (2,664)	27, 28, 29	
								Fence	0	0.010 (446)	27, 28, 29	
								Fenced area	0	0.158 (6,894)	27, 28, 29	
								LOD	0.017 (720)	0.175 (7,629))	27, 28, 29	
S-AGD-3	Perennial	Little Salmon River, SLC-29-1	B	Yes	8,178	28.78 (1,253,595)	None	None	0	0	30	6
S-MJT-1	Perennial	Pike Creek, SLC-31	C	Yes	8,045	28.39 (1,236,668)	Temporary	Fence	0	0.003 (134)	5	5
								LOD	0.000 (10)	0.262 (11,401)		
								Fenced area	0	0.050 (2,165)		
S-MWG-1	Perennial	West Branch Deer Creek, SLC-29-2-2	D	Yes	4,135	13.80 (601,128)	Permanent	Complete tree removal	0	0.016 (695)	54	11
							Temporary	Selective tree cutting	0	0.013 (588)	54	
								Underground collector line	0	0.025 (1,090)	54	
								Solar array	0	0.005 (226)	54	
								Fence	0	0.003 (134)	54	
								LOD	0	0.100 (4,355)	53, 54	
								Fenced area	0	0.040 (1,738)	54	

Table 13-4. State-regulated Streams within the Wetland and Waterbody Area

Stream Delineation ID	Stream Flow Regime	Stream Name and Waterbody Identification Number	NYSDEC Stream Class	Navigable	Cumulative Linear Feet within Survey Area	Total Area of 50-foot Stream Buffers, Acres (ft^2)	Impact Type	Impact	Impacts to State-regulated Streams, Acres (ft^2)	Impacts to State-regulated Stream Buffers, Acres (ft^2)	Figure 13-3 Sheet Number(s)	Site Plan Sheet Number(s)
S-MWG-3	Perennial	Salmon River, SLC-29	C	Yes	8,926	31.60 (1,376,496)	Permanent	Complete tree removal	0	0.061 (2,654)	47, 48	8, 9
							Temporary	Selective tree cutting	0	0.039 (13,556)	48	
								Landscaping	0	0.022 (942)	41	
								Fence	0	0.011 (461)	47	
								LOD	0	0.369 (16,079)	41, 46, 48	
								Fenced area	0	0.058 (2,523)	47, 48	
S-MWG-20	Perennial	West Branch Deer Creek, SLC-29-2-2	D	Yes	572	1.83 (79,715)	None	None	0	0		8
S-RDS-2	Perennial	East Branch Deer Creek, SLC-29-2-1	C	Yes	11,080	33.53 (1,460,577)	Permanent	Access road	0	0.002 (92)	54	8, 11, 15
							Temporary	Underground collector line	0	0.517 (22,528)	47, 51, 54	
								Drill pad	0	0.003 (137)	54	
								LOD	0	0.020 (875)	47, 54, 68	
PS-MWG-3	Perennial	Salmon River, SLC-29	C	Yes	523	14.15 (616,374)	Temporary	LOD	0	0.001 (29)	47	8
Totals					**43,490**	**117.23 (5,106,474)**	Total Temporary Impacts		**0.037 (1,596)**	**1.96 (85,464.96)**		
							Total Permanent Impacts		**0**	**0.08 (3,441)**		

[1]Underground collector line is an allowed impact but requires mitigation via culvert replacement.

The Facility's inverters, transformers, junction boxes, grading, Point of Interconnection (POI), and temporary laydown yards are sited at least 50 feet from State-regulated waters. Of the total 117.23 acres of State-regulated 50-foot stream buffer, 2.04 acres will be impacted by the Facility. Permanent impacts to the buffer due to complete tree removal (0.077 acre) and access road (0.002 acre) total 0.079 acre and these impacts occur at the outer extent of the 50-foot stream buffers. The remaining 1.96 acres of impacts are temporary and result from selective tree cutting, fencing, solar arrays/fenced areas, landscaping, LOD, and underground collection lines.

(6) Minimization of Impacts on State-Regulated Waters

The Applicant has routed and sited Facility components in a manner that avoids and minimizes impacts to State-regulated waters to the maximum extent practicable. The Facility design and layout have avoided impacts to wetlands and streams to the maximum extent practicable through siting components away from wetlands and waterbodies identified within the Facility Site.

To implement buried electrical collection lines, the Applicant is proposing the use of HDD in select locations to avoid impacts to State-regulated wetlands and streams. One underground collection line crossing of a State-regulated stream (S-AGD-1) will be via open trench (see Sheet 29 of Figure 13-3). Impacts associated with this collection line crossing will be minimized by crossing at a narrow location with no adjacent wetlands. During construction, BMPs to maintain stream flow (i.e., coffer dam/pump around techniques) will be utilized both upstream and downstream of the stream crossing location. While short-term, minor stream impacts (i.e., increase in turbidity levels and sediment deposition downstream) are possible with the open trenching stream crossing method, the impacts will be localized and temporary. Furthermore, dredged and fill material will only consist of onsite sediments, so there is not a concern that foreign sediment will be present within the stream channel. Overall, these impacts will be temporary and stormwater and erosion control measures will be implemented, as appropriate, as outlined in the SWPPP (Appendix 13-3). The stream bed and banks will be restored to pre-construction contours and no permanent impacts to the stream will occur.

Approximately 0.017 acre (720 ft^2) of temporary impact to stream S-AGD-1 may occur due to the LOD outside the fence line overlapping with the stream (see Sheet 28 of Figure 13-3). Temporary fencing and/or signage will be installed to prohibit equipment from entering the adjacent stream, however, some temporary encroachment onto the stream bank by workers may occur during installation of the adjacent fence.

State-regulated waters have a 50-foot buffer to prevent and minimize indirect impacts. Temporary fencing and/or signage will be installed to prohibit equipment from entering the adjacent stream. Where solar arrays, fencing, fenced area, and associated LOD outside the fenceline are proposed within the 50-foot buffer of State-regulated streams, the areas will be converted from agricultural land (row crop) to a stable ground cover. The proposed vegetated ground cover beneath the arrays and within the fenced area will allow for greater stormwater infiltration and reduced erosion and sedimentation. In addition, the proposed ground cover may reduce nutrients, fertilizers, and pesticides in runoff entering streams and wetlands.

Minimal tree clearing is required within the 50-foot buffer to State-regulated waters. Selective tree cutting, which will not involve any grading or grubbing of stumps, has been proposed where possible to minimize impacts. Tree clearing has been sited to the outer limit of the 50-foot buffer to retain existing forested riparian buffers.

Access roads have been sited outside of the 50-foot buffer to State-regulated waters to the maximum extent practicable. One access road is partially located within the 50-foot buffer to stream S-RDS-2 (East Branch Deer Creek) (see Sheet 54 of Figure 13-3). The access road provides access to an array area from County Route 42. The entrance of the access road is located on the opposite side of County Route 42 from stream S-RDS-2. Approximately 92 square feet (0.002 acre) of the access road is located within the 50-foot buffer. The proposed access road is located approximately 42 feet from the stream and is separated from the stream by the existing county route. The proposed access road is a limited use pervious gravel road, which consists of an impervious surface designed to distribute runoff as sheet flow to roadside buffers to infiltrate groundwater. There will be no increase in impervious surface within the 50-foot buffer and no impacts to the stream are anticipated.

Landscaping is proposed within the 50-foot buffer of stream S-MWG-3 (Salmon River) in order to mitigate for views of the Facility from across the river (see Sheet 41 of Figure 13-3). The proposed landscaping is located approximately 37 feet from the river. The proposed 942 square feet (0.022 acre) of landscaping within the 50-foot buffer is within an existing successional shrubland area. The proposed landscaping consists of native/indigenous evergreen trees and pollinator-friendly deciduous shrubs. The landscaping will allow for continued infiltration of stormwater runoff and stabilization of the soil and will not result in impacts to the adjacent stream.

Temporary impacts associated with the underground collection system will occur within the 50-foot buffer to State-regulated streams. Within the 50-foot buffer of stream S-RDS-2 (East Branch Deer Creek), 0.517 acre of temporary impact will occur for installation of underground collection lines and 0.003 acre of temporary impact will occur for a drill pad for HDD installation of underground collection lines. Appropriate erosion and sediment controls will be installed to minimize impacts to the adjacent stream.

The SWPPP (Appendix 13-3) details erosion control practices that would be utilized on site during construction to avoid impacts to State-regulated waters. Certain construction activities, such as the installation of access roads and buried electrical collection lines, may have the potential to result in indirect and/or direct impacts to surface waters. Impacts related to these construction activities will be minimized using HDD boring for underground collection line crossings, and by crossing wetlands and waterbodies at the most feasibly narrow locations. The implementation of BMPs in the SPC Plan and SWPPP will also minimize pollution and sediment related impacts to the maximum extent practicable. The removal of preexisting vegetation buffers and changes in surface water runoff quality/volume may cause indirect impacts to surface waters, impacting surface water quality. Additionally, activities that result in the removal of woody vegetation that shades surface water may cause temporary or permanent changes to water temperature which can affect water quality and aquatic habitat. Activities that cause runoff to carry sediment or pollutants can affect water quality and habitat as well.

The Applicant thoroughly evaluated both temporary and permanent impacts to surface waters that may result from construction and operation of the Facility based on the Facility design (Appendix 5-1. *Civil Design Drawings* of Exhibit 5. *Design Drawings*). Construction and operation of the Facility will not cause permanent disturbance to State-regulated streams. In addition, conversion of agriculture fields to meadow beneath solar panels will improve stream riparian buffers and reduce soil erosion and contaminants, which will improve water quality.

(i) Solar Panel Racking or Perimeter Fence Locations in Relation to State-regulated Waterbodies

No solar panel racking or perimeter fence has been sited to cross any State-regulated waterbodies within the Facility Site.

(ii) Excavation, Grading, or Fill Placement in Relation to State-regulated Waterbodies

No grading nor fill placement will occur in State-regulated waterbodies.

(iii) State-regulated Waterbody Crossings

Stream crossings will occur via HDD boring under State-regulated streams, except for the crossing of stream S-AGD-1, an unnamed tributary to Little Salmon River. The crossing will result in only temporary impacts to the stream and those impacts will be minimized by crossing at a narrow location with no adjacent wetlands and as perpendicular to the direction of flow as practicable, implementation of appropriate BMPs during construction, and restoration of the stream bed and banks.

(iv) Tree Clearing Minimization of Banks of State-regulated Waterbodies

Selective tree cutting, which will not involve any grading or grubbing of stumps, has been proposed where possible to minimize impacts. There will be 0.08 acre of complete tree removal within 50 feet of State-regulated streams S-MWG-1 and S-MWG-3. This tree clearing occurs at the outermost edge of the 50-foot buffers, allowing existing forested riparian buffers to remain.

(v) Slope and Erosion Considerations in Relation to State-regulated Waterbodies

There are no areas of steep slope (greater than 35 percent) within the Facility Site. There are also no areas of steep slope within 50 feet of State-regulated waterbodies.

(vi) Surface Grading in Relation to State-regulated Waterbodies

No surface grading will occur within 50 feet of State-regulated waterbodies.

(vii) Stabilizing Vegetation Placement in Relation to State-regulated Waterbodies

There will be no surface grading to occur within 50 feet of State-regulated waters, thereby rendering this section inapplicable. Where solar panels and fencings are proposed, the Facility will replace existing agricultural areas with native grass plantings that will improve vegetative stabilization of the 50-foot buffer.

(7) Stream Restoration and Mitigation Plan

There will be 0.020 acre of impacts to a State-regulated stream and 2.041 acres of impacts within 50 feet of State-regulated streams due to construction or operation of the Facility. Accordingly, pursuant to 19 NYCRR § 900-10.2(f)(3), a Stream Restoration and Mitigation Plan (Appendix 13-4) has been prepared. Per the Stream Restoration and Mitigation Plan, the Applicant will upgrade two culverts. Consistent with 19 NYCRR § 900-2.14(b)(7) and 19 NYCRR § 900-10.2(f)(3), the Applicant in consultation with ORES shall submit and implement a final Stream Restoration and

Mitigation Plan. The final Stream Restoration and Mitigation Plan shall provide for mitigation for one stream crossing, consistent with ORES's June 17, 2024 Wetland and Surface Water Jurisdictional Determination.

9(c) Stormwater

(1) SWPPP and SPDES Permit

The NYSDEC requires coverage under the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) for "construction activities involving soil disturbances of one or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility." The Applicant will seek coverage under the NYSDEC SPDES General Permit for construction of the Facility. This authorization is subject to review by NYSDEC but is coordinated with the ORES 94-c process.

In accordance with the guidelines set forth in GP-0-20-001, a SWPPP has been prepared (Appendix 13-3) which describes erosion and sediment control practices implemented for Facility construction in explicit terminology. The SWPPP includes stormwater management practices to reduce potential pollutants in stormwater discharge during Facility operation. As part of these requirements, an Environmental Monitor (EM) is required to be onsite daily to inspect the Facility's erosion and sediment control practices when soil-disturbing activities are being performed.

This SWPPP was prepared in accordance with the requirements for coverage under GP-0-20-001. It is anticipated by the NYSDEC and ORES that an electronic Notice of Intent (eNOI) will be filed with both agencies to authorize a SPDES General Permit number and the NYSDEC Letter of Acknowledgement which certifies the Facility's compliance with the pre-construction technical requirements of GP-0-20-001. The Applicant will also request a 5-acre waiver to disturb greater than five acres of land at once during construction. When authorized, the Letter of Acknowledgement will be included within the SWPPP and stored onsite, as required by GP-0-20-001. The eNOI is included in the SWPPP within Attachment A.

(2) Post-Construction Stormwater Management Practices Plan

The SWPPP includes information on erosion and sediment control, phases of construction, disturbance limits, waste management, spill prevention, and inspection/maintenance measures as stormwater management practices. Hydrology prior to and after construction will be analyzed in tandem with runoff and drainage patterns to adhere to stormwater design according to the final Facility layout. Updates to the SWPPP prior to construction may be necessary based on the hydrological analysis described above.

9(d) Chemical and Petroleum Bulk Storage

(1) Spill Prevention and Control Measures

No onsite storage or disposal of large volumes of substances regulated under the chemical and petroleum bulk storage programs of New York State is proposed. On a typical solar facility, spill containment is included at the substation transformers. However, transformers are exempt from the petroleum bulk storage program as they are considered operational tank systems. Operational tank system means a tank system that is integral to, or connected to, equipment or machinery for which the petroleum in the system is used solely for operational purposes. Petroleum in an operational tank system is not consumed in any context (such as being combusted as fuel or used as a raw material in a manufacturing process).

The Facility will adhere to a SPC Plan, which will be submitted as Compliance Filing, to minimize the potential impact to aquatic resources from minor leaks or mechanical failures of construction equipment/vehicles. The SPC Plan will describe the procedures, methods, and equipment to be used during Facility construction to prevent the discharge of oil into or upon navigable WOTUS, adjoining shorelines or any other location that may affect other natural WOTUS. Along with describing the countermeasures anticipated for used within the Facility Site, the SPC Plan will establish inspection, reporting, training, and recordkeeping requirements for the aboveground oil storage, primarily located in the two main substation transformers.

This plan dictates that all contractors will be required to keep materials on hand to control and contain a petroleum spill. In accordance with § 900-6.4(m)(5) spill kits will be kept in all construction vehicles. Any leaks will be stopped and cleaned up immediately. Spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the NYSDEC's Spill Hotline within two hours, in accordance with the NYSDEC Spill Reporting and Initial

Notification Requirements Technical Field Guidance. ORES and the New York State Department of Public Service (NYSDPS) will also be notified of all reported spills in a timely manner. Contractors will be responsible for ensuring action on the part of construction personnel.

(2) Storage or Disposal of Regulated Substances

The onsite storage of large volumes of substances regulated under the chemical and petroleum bulk storage programs of New York State is not proposed. Onsite disposal will not occur. If construction operations require petroleum or other hazardous chemicals to be stored onsite, applicable state and federal laws and guidelines will be followed.

(3) Storage of Hazardous Substances Compliance with Local Law Storage Regulations

Onsite storage of large volumes of substances, regulated under the chemical and petroleum bulk storage programs of any local laws, is not proposed for the Facility, as discussed in Sections 13(d)(1) and (2) above. As stated above, onsite disposal will not occur. If construction operations require petroleum or other hazardous chemicals to be stored onsite, those substances will be stored in a manner such that the applicable, substantive provisions of local laws and guidelines will be followed.

9(e) Aquatic Species and Invasive Species:

(1) Biological Aquatic Resource Impacts

Exhibit 14. *Wetlands* details potential impacts to wetlands and waterbodies within the Facility Site. Additionally, Exhibit 11. *Terrestrial Ecology,* Exhibit 12. *NYS Threatened and Endangered Species*, and the Wildlife Site Characterization Report (Appendix 12-1) within this Application discuss NYS threatened and endangered species that may be impacted by the Facility.

Consultation with desktop databases and environmental agencies on a federal, state, and local scale were conducted to identify species that may commonly occur within the Facility Site. Table 11-3 of Exhibit 11. *Terrestrial Ecology* provides the animal species that may occur within each vegetative community of the Facility Site. This list was generated based on public databases and observations made by biologists during field surveys. As detailed above in Section 13(b)(3)), 13 invasive species were observed on site during field surveys. These species are not anticipated to be spread as a result of Facility construction and runoff as the Applicant will follow BMPs in

order to prevent introduction and spread of invasive species. See details of BMPs in Appendix 11-1. *Invasive Species Management and Control Plan*.

(2) Avoidance, Minimization, or Mitigation Measures for Biological Aquatic Resources

The Facility has been designed to avoid impacts to aquatic resources to the maximum extent practicable, and Facility construction will minimally impact any NYS-protected waterbodies. As stated above, there are seven State-regulated streams located in the Facility Site or in the immediate vicinity. The Applicant will obtain a Water Quality Certification (WQC), adhere to the SWPPP, SPC Plan, and BMPs for the Facility, as well as the USCs under Section 94-c, in turn protecting biological aquatic resources in surrounding areas. Based on the design of the Facility and associated components there will be minimal impacts to State-regulated streams and their 50-foot buffers.

9(f) Water Quality Certification

(1) Water Quality Certification Request

In accordance with Section 401 of the Clean Water Act (CWA), if construction or operation of a proposed major renewable energy facility would result in any discharge into any navigable WOTUS and require a federal license or permit, the Applicant shall request and, prior to commencing construction, obtain a WQC indicating that the proposed activity will be in compliance with water quality standards, as set forth in 6 NYCRR Section 608.9. The Applicant anticipates the need for a WQC because the Facility will impact non-tidal WOTUS, as described above in Section 13(b)(5). The Facility will be permitted under the Nationwide Permit (NWP) program for discharges of dredged or fill material into non-tidal WOTUS.

(2) Related Federal Permit Applications

As stated above, the Applicant anticipates the need for a coverage under Section 404 and Section 401 of the CWA for impacts to WOTUS related to the Facility. Additional information regarding these anticipated submittals can be found in Exhibit 25. *Other Permits and Approvals*. The Applicant will initiate a JD by submitting the Wetland and Stream Delineation Report and Addendum Report to the USACE. The report was also submitted to ORES on October 10, 2023. A Wetland and Stream Delineation Report Addendum was submitted to ORES on April 22, 2024. The report and addendum are included as Appendix 14-1 to Exhibit 14. *Wetlands*. ORES provided

the Applicant with a Jurisdictional Determination regarding State-regulated wetlands and streams on June 17, 2024 (see Appendix 14-2 of Exhibit 14).

(3) Compliance with 6 NYCRR Section 608.9

As stated above, the Applicant is seeking a WQC pursuant 6 NYCRR Section 608.9 concurrently with this filing. The Applicant does not anticipate the Facility will impact water quality.

(4) Pertinent Contact Information Related to Water Quality Certification

The USACE federal wetlands and waterbodies permitting process for the Facility is described above in Section 13(f)(2). The Application will be filed with the USACE New York District Upstate Regulatory Field Office located at 1 Buffington Street, Watervliet Arsenal, Watervliet, NY 12189-4000.

(5) Plan and Timetable for Water Quality Certification Request

Please see Section 13(f)(1) above. The WQC Request shall be filed concurrently with the Section 404 permit application for the Facility. The Applicant expects the Facility to be in compliance with state water quality standards.

References

Franklin County. 2023. Franklin County Contact Report. https://www.health.ny.gov/environmental/water/drinking/pws_contacts/fran_contacts.htm Accessed May 2024.

iMapInvasives: NatureServe's online data system supporting strategic invasive species management. 2024. Public Map. http://www.imapinvasives.org. Accessed May 2024.

New York State Department of Environmental Conservation (NYSDEC). 1990. Division of Water Technical & Operational Guidance Series 2.1.3. Primary and Principal Aquifer Determinations. https://www.dec.ny.gov/docs/water_pdf/togs213.pdf. Accessed May 2024.

NYSDEC. 2014. New York State Prohibited and Regulated Invasive Plants. https://extapps.dec.ny.gov/docs/lands_forests_pdf/isprohibitedplants2.pdf. Accessed May 2024.

NYSDEC. 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. Division of Water, Bureau of Water Management, Albany, NY. https://www.dec.ny.gov/docs/water_pdf/togs111.pdf. Accessed June 2024.

NYSDEC. 2024a. Water Well Information – Search Wizard. https://www.dec.ny.gov/cfmx/extapps/WaterWell/index.cfm?view=searchByCounty. Accessed May 2024.

NYSDEC. 2024b. DECinfo Locator, Water Wells. https://gisservices.dec.ny.gov/gis/dil/ . Accessed May 2024.

NYSDEC. n.d.a. Aquatic Invasive Species. https://dec.ny.gov/nature/invasive-species/aquatic. Accessed May 2024.

NYSDEC. n.d.b. Groundwater Resources of New York. https://www.dec.ny.gov/lands/36064.html. Accessed May 2024.

NYSDEC. n.d.c St. Lawrence River Watershed. https://www.dec.ny.gov/lands/48021.html. Accessed May 2024.

New York State Senate. 2023. Protection of navigable waters; excavation or fill; permit. Chapter 43-B, Article 15, Title 5 of the Consolidated Laws of New York. https://www.nysenate.gov/legislation/laws/ENV/15-0505. Accessed May 2024.

United States Geological Survey (USGS). 2018. Principal Aquifers of the United States. https://www.usgs.gov/media/images/aquifers-map-principal-aquifers-united-states.html. Accessed May 2024.

United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS). 2019. Web Soil Survey. https://websoilsurvey.nrcs.usda.gov/app/. Accessed May 2024.

United States Environmental Protection Agency (USEPA). 2024. *Detailed Facility Report*. https://echo.epa.gov/facilities/facility-search/results?mediaSelected=water. Accessed May 2024.

USEPA. 2024. Sole Source Aquifers. https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b. Accessed May 2024.