



## **FLAT CREEK SOLAR**

**Permit Application No. 23-00054**

**§ 1100-2.14 Exhibit 13**

**Water Resources and Aquatic Ecology**

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## Acronym List

AJD	Approved Jurisdictional Determination
Bgs	Below ground surface
BMP	Best Management Practice
CMP	Complaint Management Plan
CWA	Clean Water Act
ECL	Environmental Conservation Law
EM	Environmental Monitor
eNOI	Electronic Notice of Intent
EPC	Engineering, Procurement, and Construction
FEMA	Federal Emergency Management Agency
FOIL	Freedom of Information Law
HDD	Horizontal directional drilling
HUC	Hydrologic unit code
ISCMP	Invasive Species Control and Management Plan
JD	Jurisdictional Determination
LOD	Limits of Disturbance
mg/L	milligrams per liter
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDPS	New York State Department of Public Service
ORES	Office of Renewable Energy Siting and Electric Transmission
PJD	Preliminary Jurisdictional Determination
POI	Point of interconnection
SPCC	Spill Prevention, Control and Countermeasure
SPDES	State Pollutant Discharge Elimination System
SPT	Standard Penetration Test
SSA	Sole Source Aquifer

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	Waters of the United States
WQC	Water Quality Certification
WSA	Wetland Survey Area
WSCR	Wildlife Site Characterization Report

## **Glossary Terms**

<b>Applicant</b>	Flat Creek Solar NY LLC, a subsidiary of Cordelio Power LP, the entity seeking a siting permit for the Facility from the Office of Renewable Energy Siting and Electric Transmission (ORES) under Article VIII of the New York State Public Service Law.
<b>Facility</b>	Flat Creek Solar, a 300 MW solar generating facility located in the Towns of Root and Canajoharie, NY. The proposed Facility components to be constructed for the generation, collection, and distribution of energy for Flat Creek Solar include solar panel modules, electrical collection system, collection substation, point of interconnection (POI) switchyard, access roads, laydown/staging areas, and other ancillary facilities.
<b>Facility Site</b>	The participating parcels encompassing Facility components, which totals approximately 3,794 acres in the Towns of Canajoharie and Root, Montgomery County, New York (Figure 2-1).
<b>Study Area</b>	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 approximately 108,667 acres, inclusive of the approximately 3,794-acre Facility Site.
<b>Limit of Disturbance (LOD)</b>	The area to which temporary construction impacts will occur, totaling approximately 1,637 acres.

## Exhibit 13: Water Resources and Aquatic Ecology

This Exhibit provides information required in accordance with the requirements of §1100-2.14 of the Article VIII Regulations.

### 13(a) Groundwater

#### (1) Hydrologic Character

According to data from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), the representative depth to the water table within the Facility Site ranges from about 0 to over 201 centimeters (78 inches; 6.5 feet) below ground surface (bgs) (Figure 13-1). Data was obtained through the USDA NRCS Web Soil Survey tool, which lists depth to restrictive layers and water table by soil map unit for a given area of interest. Findings from onsite geotechnical investigations indicate that groundwater was observed at the time the investigation was conducted. Groundwater levels ranged from 4 feet bgs to 8.5 feet bgs in test borings B-101, B-103, B-107 and B-115 within the array fields and at a depth of 22.5 feet bgs in test boring B-116. Temporary dewatering may be required during construction if perched water, groundwater, or seepage is encountered. The Geotechnical Engineering Report, included as Appendix 10-1 of Exhibit 10 (Geology, Seismology and Soils), states that Standard Penetration Test (SPT) borings within the Facility Site encountered the presence of weathered rock at varied depths between 4.6 and 13.1 feet. Further information on the geology within the Facility Site can be found in Exhibit 10. Conditions encountered during subsurface investigations are generalized below in Table 13-1.

**Table 13-1. Generalized Geotechnical Review Results**

Description	Approximate Depth to Bottom of Stratum (feet)	Material Description	Relative Density/ Consistency
Stratum 1	0 to 2.5	Clay	Medium Dense
Stratum 2	2.5 to 15	Silty Clayey Sand/Weathered Rock	Medium Dense to Very Dense
Stratum 3	15+	Weathered Rock	Very Dense/Hard

Source: Geotechnical Engineering Report - Flat Creek Solar, 2022, Supplemental Geotechnical Engineering Report – Flat Creek Solar, 2024

## ***(2) Private Well Survey Results and Groundwater Aquifers and Groundwater Recharge Areas***

Information presented in this section outlines locations of identified and mapped groundwater sources. Data was obtained through desktop review, and questionnaires conducted by the Applicant. The construction and operation of the Facility will comply with the Uniform Standards and Conditions (USCs) under Article VIII.

Well survey questionnaires were mailed to landowners of tax parcels within 1,000 feet of the Facility Site boundaries. Questions about the size, yield, depth, and quality of water obtained from well(s) on the property, well location in relation to any buildings on the property, any type of installed water treatment system, and whether any issues had ever occurred with wells identified on the property, were included in these questionnaires. The survey also contained a phone number to reach the Applicant if the recipient had any questions. A stamped, self-addressed envelope was included to facilitate returns to TRC on behalf of the Applicant.

At the time of filing, 11 responses to the survey questionnaire were received. There were 18 wells identified in the 11 surveys received. Respondents who identified wells located on their parcel generally indicated that their wells produce high quality water. When low water quality was reported, the most common quality issue reported was a sulfur odor and/or taste and heavy iron content. Others indicated lime scale in their water source. A copy of the well survey questionnaire sent to landowners and any responses that were received are included in Appendix 13-1.

### **Unconsolidated Aquifers**

The United States Geological Survey (USGS) has completed hydrogeologic mapping in cooperation with New York State and local agencies. Unconsolidated aquifer distribution and hydrogeologic characteristics are presented at the 1:250,000 scale in a 5-map series that was published in 1988 in cooperation with the New York State Department of Environmental Conservation (NYSDEC). As shown on Figure 13-2, the Facility Site largely occurs within one unconsolidated aquifer. The very northern end of the Facility Site also occurs in the Mohawk River unconsolidated aquifer, however, no Facility components are located within this aquifer. The northern portion of the Facility Site also occurs in “New York and New England Carbonate Rock Aquifers”, which is defined by USGS as a minor aquifer, or not a principal aquifer (USGS 2021).



## **Sole Source Aquifers**

Sole source aquifers (SSA) are defined by the United States Environmental Protection Agency (USEPA) as aquifers that supply at least 50 percent of the drinking water for their service areas; there are no reasonable alternative drinking sources should these aquifers become contaminated. The Facility Site is not located within any SSA. The closest SSA, the Schenectady-Niskayuna SSA (Federal Register ID 50 FR 2022), is approximately 23 miles east of the Facility Site (USEPA, n.d.). No impacts to SSAs are expected as a result of the Facility's construction or operation.

## **Primary Aquifers**

Primary aquifers are defined by the USGS and the NYSDEC as "highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems" (NYSDEC, 1990). The Facility Site does not overlap any NYSDEC-listed primary aquifers. The Schenectady Aquifer is the closest primary aquifer to the Facility Site, located approximately 24 miles east of the Facility Site's eastern edge.

## **Principal Aquifers**

As defined by the NYSDEC, principal aquifers are aquifers known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time. 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, 2003). The very northern end of the Facility Site occurs within a principal aquifer associated with the Mohawk River.

No adverse impacts to this aquifer are anticipated due to Facility construction or operation as appropriate erosion prevention and sedimentation control measures will be implemented during construction and operation. Control measures include a preliminary Stormwater Pollution Prevention Plan (SWPPP), and a Spill Prevention, Control and Countermeasure (SPCC) plan that will be approved for the Facility prior to the start of construction. The proposed Facility is not anticipated to have direct effects on subsurface waters. The Facility Site will implement control measures such as silt fencing, compost filter socks, flow spreaders, grass filter strips, and erosion control matting. For further discussion on sedimentation control measures, see the preliminary SWPPP in Appendix 13-2.

## **Groundwater Aquifers and Recharge Area**

Figure 13-2 displays groundwater aquifers, groundwater wells, and recharge areas. Figure 13-2 also includes 100 and 200-foot buffers associated with groundwater wells in accordance with §1100-2.14(a)(2). Groundwater aquifers and recharge area data were obtained through the NYSDEC Division of Water Resources, Bureau of Water Management. Information pertaining to mapped groundwater aquifers is discussed in the section above. Information pertaining to groundwater wells is described below.

The USGS groundwater monitoring sites nearest to the Facility, local numbers Mt-411 and So-528 (USGS 425511074254001, 424560074274101), are located 4.5 miles northeast and 4.4 miles south of the Facility Site, respectively. According to data collected at these groundwater sites, the median annual depth to the sand and gravel aquifer's water level is 33.45 feet bgs at Mt-411 and 30.69 feet bgs at So-528.

Existing public water well locations and data on wells within the five-mile Study Area were gained through a Freedom of Information Law (FOIL) (Public Officers Law, Article 6 Sections 84-90) request sent to the New York State Department of Health (NYSDOH). An information request, including groundwater wells and their location, depth, construction logs, and descriptions of bedrock encountered within the Facility Site and Study Area, was sent to the NYSDOH on November 17, 2023 (Appendix 13-3). The response received from the NYSDOH on December 13, 2023, indicated no records of public water wells within the Facility Site or Study Area. The NYSDOH did indicate that the Facility Site is serviced by the Canajoharie (V) Water Works public water system (NY7003493). NYSDOH also indicated there are two non-community public water systems within the vicinity of the proposed Facility Site, the Full-Tan Sun Club (NY2808295) located 0.5 miles from the Facility Site, and Wintergreen Park (NY2813247) located 1.0 miles from the Facility Site. The Applicant does not anticipate impacts to the public water wells and water supplies listed by the NYSDOH and NYSDEC as the closest public water supply is located outside of the Facility Site. All ground disturbing activities will be performed within the Facility Site boundary.

The NYSDEC Division of Mineral Resources offers an online mapping application of water wells registered through the Water Well Contractor Program. This program requires any business conducting water well drilling activities to register annually with NYSDEC before doing business anywhere in New York State. The water well contractor must notify NYSDEC prior to commencement of drilling a water well and file a Water Well Completion Report with NYSDEC

upon completion of a water well. This online mapping application was consulted to determine if there are any wells located within the Facility Site and within a 1,000-foot radius. The results of the search concluded that there are two registered domestic wells located within the Facility Site and an additional six registered domestic water wells within the 1,000-foot radius of the Facility Site (NYSDEC, 2023). Data received from NYSDEC indicated a water well located on parcel 112-1-24.11 in the middle of the existing agricultural field. The Applicant has confirmed there is no well at that location. It has been removed from the mapping for this Application. These water wells are displayed on Figure 13-2.

As shown on Figure 13-2, there are no water wells located within the prohibited 100 feet of Facility components. There are two water wells that may be located within 500 feet of horizontal directional drilling (HDD) operations based on the results of the well survey questionnaires (see Figure 13-2 sheets 15 and 21). Additionally, there are two NYSDEC-registered domestic water wells that may be located within 200 feet of PV panel installation (see Figure 13-2 sheets 27, 28, and 31). Water wells within the 200-foot and 500-foot distances described will be tested prior to construction. The Applicant will coordinate with landowners to confirm the locations of all water wells within the Facility Site; the exact location of these water wells will be confirmed during pre-construction well testing.

### ***(3) Impacts on Groundwater Quality and Quantity***

The project will not utilize any groundwater during construction and Project operation. Permanent impacts to primary, principal, or SSA aquifers or groundwater are not anticipated as a result of construction or operation of the Facility. The potential for temporary and minor impacts to groundwater will be minimized or avoided altogether through the implementation of best management practices (BMPs), included within the preliminary SWPPP (Appendix 13-2). Some of the BMPs that will be implemented throughout the Facility Site include silt fencing, compost filter socks, flow spreaders, grass filter strips, and erosion control matting.

Temporary impacts to groundwater may occur though the introduction of pollutants from inadvertent fuel leaks or other chemicals during construction, operation, or maintenance of the Facility. Discharges from unanticipated mechanical failures of onsite equipment or spills during equipment refueling are not expected to impact groundwater due to the implementation of required avoidance, minimization, and mitigation measures. These measures are outlined in the SPCC Plan that will be completed and submitted as a compliance filing prior to construction and

operation of the Facility, as well as the BMPs described throughout the Application and the preliminary SWPPP (Appendix 13-2).

Certain construction activities have the potential to result in direct and/or indirect impact to surface waters. These activities include the installation of access roads, installation of collection lines, and the development of temporary staging areas and workspaces around the solar arrays. Impacts related to the construction of access road and collection line crossings will be minimized to the maximum extent practicable by crossing wetlands and streams at narrow locations where feasible. This includes the crossing of a tributary to Flat Creek and additional wetland crossings described in Exhibit 14 (Wetlands).

The Facility will add 35.4 acres of impervious surface within the limit of disturbance through the placement of inverter pads, access roads, collection substation, and POI switchyard. These impervious areas will be distributed throughout the Facility Site and will have, at most, a negligible effect on groundwater recharge for the local region. The construction of these impervious surfaces is typical of construction projects throughout New York State (NYS) with methods approved by the NYSDEC. Access roads will be stabilized throughout the Facility Site and will be impervious (9.9 acres). Sheet C-106-01 in Appendix 5-1 includes details on the stabilized access roads. Limited use pervious access roads will primarily be installed at road turnarounds and the ends of access roads. They are symbolized on the design drawings in green hatching and details are included on Sheet C-106-02. The pervious access roads account for 9.9 acres, 21.7% of the total access road acreage. Access roads will be used for operation and not used for heavy construction equipment. Pervious land cover vegetation will be situated beneath the solar arrays and within the overall Facility Site, which will allow for continued infiltration of stormwater runoff as occurs under existing site conditions. In areas of the Facility Site that are currently agriculture the proposed vegetated ground cover beneath the arrays will continue to be a similar land cover and continue to allow infiltration.

The selected Engineering, Procurement, and Construction (EPC) Contractor and Environmental Monitor (EM) will work together to identify the locations of the designed washout areas for concrete trucks that are necessary for construction activities. These washout areas will be located and installed to minimize impacts to water resources and will be sited at least 100 feet from any wetland, waterbody, or stream, and will be located outside of wetland adjacent areas, to the maximum extent practicable. 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 access roads are impervious and designed to distribute runoff as sheet flow to roadside buffers where it will infiltrate the groundwater. Groundwater may be encountered in poorly drained soils, areas with a characteristic shallow water table, areas which contain seasonally perched groundwater, or areas where semi-impervious layers of substrata do not permit groundwater to permeate deeply within the soil profile (i.e., aquitards and aquicludes). The ponding of surface waters and the pooling of water due to significant precipitation events could occur in open excavation areas or depressions during construction of the Facility.

Although no impacts to drinking water are anticipated as a result of Facility construction or operation, the Applicant will ensure that no post driving will occur within 200 feet of any identified active water supply. In accordance with the §1100-6.4(n)(2) of the USCs, the Applicant will engage a qualified 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, if applicable, as follows:

- Collection lines or haul roads within 100 feet of an existing, active water supply well or water supply intake;
- Pier or post installation points within 200 feet of an existing, active water supply well or water supply intake;
- At the location of any HDD operation within 500 feet of an existing, active water supply well or water supply intake: and
- At the location of any blasting operation within 1,000 feet of an existing, active water supply well or water supply intake. Blasting is not anticipated.

If the results of the pre-construction testing indicate that federal and 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 construct a new well or otherwise reach a solution for the concern. Any newly constructed well shall be at least 100 feet from collection lines and access roads, and at least 200 feet from all other Facility components.

A Complaint Management Plan (CMP) will be included in the pre-construction filings of this Application as specified under §1100-10.2 of the Article VIII Regulations. In the 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 that the Applicant will respond to using the CMP. If, because of Facility construction, an active potable water well no longer meets federal or State potable water testing standards, the Applicant will work with the well owner to reach an agreeable resolution.

## **13(b) Surface Water**

### ***(1) Surface Water Map***

The locations of surface waters within the Wetland Survey Area (WSA) are mapped in Figures 13-3 and 13-4. Figure 13-4 displays features mapped in publicly available datasets from the NYSDEC, USGS, National Wetlands Inventory (NWI); while waterbody data collected during onsite wetland and waterbody delineations conducted intermittently throughout the growing seasons of 2020, 2021, 2022, and 2023, is shown in Figure 13-3.

### ***(2) Stream Delineation Survey Reports***

Surface waters, as well as general characteristics of the hydrology and character of the WSA, were collected as part of wetland and waterbody delineations performed by TRC wetland biologists in 2020, 2021, 2022, and 2023. 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 WSA. As part of delineation efforts, TRC identified and delineated 122 streams within the WSA (totaling 100,454.75 linear feet). The ORES Surface Waters Jurisdictional Determination (JD) received on September 27, 2023 and the updated JD received July 1, 2024 (Appendix 13-4), identified Flat Creek as a Navigable Water, which corresponds to TRC-delineated streams S-EES-03, and S-RDS-06. Neither of the two streams identified in the ORES JD are considered protected per Environmental Conservation Law (ECL) - ENV Section 15-0501. Per ECL - ENV Section 15-0505, the streams identified in the ORES JD are State protected as they are considered Navigable Waters.

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 included within Exhibit 14, Appendix 14-1.

### **(3) Surface Water Characteristics**

The Facility is located within the NYSDEC-defined Mohawk River Basin major drainage basin. This major drainage basin is in Central New York State and occupies 3,460 square miles at its most downstream point. The basin originates in the valley between the western Adirondacks and the Tug Hill Plateau and flows 140 miles to the east where it joins the Hudson River. The basin is comprised of 4,086 miles of freshwater streams and rivers including Schoharie Creek, West Canada Creek, and East Canada Creek. The Facility Site is located within the USGS defined Mohawk River sub-basin hydrologic unit code (HUC) 02020004, the Canajoharie Creek – Mohawk River (HUC 0202000409) and the Cayadutta Creek-Mohawk River watersheds (HUC 0202000410), and the Flat Creek-Mohawk River (HUC 020200041002), Yatesville Creek – Mohawk River (HUC 020200041003), Headwaters Flat Creek (HUC 020200041001), and Lower Canajoharie Creek sub-watersheds (HUC 020200040908) (USEPA 2017).

The dominant surface water features within the Facility Site are Flat Creek and tributaries to it, and tributaries to the Mohawk River. Tributaries to Flat Creek empty into Flat Creek from various directions, then Flat Creek flows north/northwest from the Facility Site into the Mohawk River. Tributaries of the Mohawk River generally flow north from the Facility Site into the Mohawk River, then continue flowing east towards Albany to connect with the Hudson River. Most aquatic features found within the WSA receive waters originating from wetland complexes, or from precipitation events and agricultural runoff. Nine NYSDEC Class C streams that extend from Flat Creek and the Mohawk River are located within the WSA. Flat Creek flows directly through areas of the central and eastern/southeastern portions of the Facility Site, it also occurs directly adjacent to additional portions of the Facility Site. The Mohawk River is located approximately 1,120 feet north of the northernmost portion of the WSA.

The Facility Site receives 45.72 inches of precipitation annually from 1981-2010's average based on information stored for the nearby town of Cherry Valley, New York located approximately 13 miles southwest of the WSA (U.S. Climate Data, 2023). In addition to precipitation, hydrology onsite originates from agricultural runoff and subsurface flow. The Facility Site predominantly drains to the north/northwest towards the Mohawk River.

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.

Waterbodies with a classification of AA, A, or B, or with a classification of C with a standard of (T) or (TS) are collectively referred to as "protected waterbodies," and are subject to the provisions of the Protection of Waters regulations. Special requirements apply to sustain (T) and (TS) waters that support sensitive fisheries resources. Table 13-2 below lists NYSDEC-mapped waterbodies within the Facility Site and their State classifications. Figure 13-4 portrays their locations relative to the Facility Site. In addition to those NYSDEC-mapped waterbodies listed below, several small unnamed and unmapped (by NYSDEC) waterbodies and tributaries are also present within the Facility Site. Table 13-4 below lists all delineated surface water within the Facility Site including features identified by ORES as State jurisdictional and features assumed to be navigable Waters of the United States (WOTUS). The Applicant is coordinating with United States Army Corps of Engineers (USACE) on a partial approved/preliminary jurisdictional determination for features on-site, see Section 13(f)(2), below. No aquatic invasive species were identified within these surface waterbodies. Those waterbodies within 100 feet of any Facility components have been mapped and identified on Figure 13-4.

The Protection of Waters Program (Article 15 of the ECL) grants the NYSDEC regulatory jurisdiction over any activity that disturbs the bed or banks of protected streams. Any stream, or portion of a stream, that has been assigned by the NYSDEC any of the following classifications or standards is considered a protected stream: AA, AA(T), A, A(T), B, B(T) or C(T) (6 NYCRR



Part 701). Non-navigable Class C streams are not considered State protected streams under Article 15.

**Table 13-2. NYSDEC-Mapped Streams within the Facility Site**

<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYS Major Drainage Basin</b>	<b>USGS Sub-basin Hydrologic Unit Code (HUC) 8 and Name</b>	<b>NYSDEC Classification<sup>1</sup> and Standard<sup>2</sup></b>	<b>Linear Feet Within Facility Site</b>
876-252 Lasher Creek	Mohawk River	Mohawk 02020004	C	4,889
876-253 Lasher Creek and tribs	Mohawk River	Mohawk 02020004	C	3,511
876-258 Flat Creek and tribs	Mohawk River	Mohawk 02020004	C	12,641
876-259 Flat Creek and tribs	Mohawk River	Mohawk 02020004	C	23,454
876-260 Mohawk River and Tribs	Mohawk River	Mohawk 02020004	C	10,746
<sup>1</sup> 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. <sup>2</sup> Streams designated (T) indicate that they support trout, while those designated (TS) support trout spawning.				

As described above, the NYSDEC mapped streams within the Facility Site are limited to Class C classification. The NYSDEC establishes water quality standards criteria for specific substances, which are found in 6 NYCRR Part 703. 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 are defined in 6 NYCRR Part 703 and 704, and the Standards for Class C is provided in Table 13-3 below. A complete list of all surface waters delineated in the Facility Site are included in Table 13-4 below.

**Table 13-3. NYSDEC Water Quality Standards**

<b>Parameter</b>	<b>NYSDEC Waterbody Classifications<sup>1</sup></b>	<b>Standard</b>
Taste, color, and odor-producing, toxic, and other deleterious substances	C	None in the amounts that will adversely affect the taste, color, or odor thereof, or impair the waters for their best usage.
Turbidity	C	No increase that will cause a substantial visible contrast to natural conditions.
Suspended, colloidal, and settleable solids	C	None from sewage, industrial wastes, or other wastes that will cause deposition or impair the waters for their best usages.
Oil and floating substances	C	No residue attributable to sewage, industrial wastes, or other wastes, not visible oil film nor globules of grease.
Phosphorus and nitrogen	C	None in the amounts that will result in growths of algae, weeds, and slimes that will impair the waters for their best usage.
Thermal discharges	C	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	C	No alteration that will impair the waters for their best usage.
pH	C	Shall not be less than 6.5 nor more than 8.5.

**Table 13-3. NYSDEC Water Quality Standards**

Parameter	NYSDEC Waterbody Classifications <sup>1</sup>	Standard
Dissolved Oxygen	C	For non-trout waters, the minimum daily average shall not be less than 5.0 milligrams per liter (mg/L), and at no time shall the dissolved oxygen concentration be less than 4.0 mg/L.
Dissolved solids	C	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	C	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	C	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.
<p>Source: 6 NYCRR Parts 703.2, 703.3, 703.4, 704.1</p> <p><sup>1</sup> 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.</p>		

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-ABL-01	Ephemeral	431	-	-	-	42.90184	-74.55297
S-ABL-02	Ephemeral	31	-	-	-	42.90236	-74.55514
S-ABL-03	Intermittent	1853	-	-	-	42.89951	-74.55273
S-ABL-04	Ephemeral	124	-	-	-	42.90022	-74.55468
S-ABL-05	Ephemeral	700.69	-	-	-	42.89095	-74.55182
S-ABL-06	Intermittent	2182	876-260 Mohawk River and Tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.89164	-74.55470
S-ABL-07	Intermittent	2238	876-260 Mohawk River and Tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.89298	-74.54932

**Table 13-4. Delineated Streams in the Facility Site**

Stream Field Designation	Flow Regime Classification	Linear Feet within Wetland Survey Area	NYSDEC Stream Name and Regulatory ID Number	NYSDEC Classification	Waterbody ID Number (WIN)	Latitude of Centroid	Longitude of Centroid
S-ABL-08	Intermittent	978	-	-	-	42.89091	-74.55841
S-DJB-01	Ephemeral	231	-	-	-	42.87786	-74.53851
S-DJB-02	Perennial	594	-	-	-	42.87698	-74.53302
S-DJB-03	Perennial	3975	876-260 Mohawk River and Tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.87834	-74.53308
S-EES-01	Intermittent	522	-	-	-	42.86350	-74.53685
S-EES-02	Ephemeral	449	-	-	-	42.86342	-74.53655
S-EES-03	Perennial	10053	876-258 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.85197	-74.52353
S-EES-04	Intermittent	3	-	-	-	42.86313	-74.53343
S-EES-07	Ephemeral	273	-	-	-	42.85924	-74.53865
S-EES-08	Intermittent	114	-	-	-	42.85879	-74.53614
S-EES-09	Ephemeral	480	-	-	-	42.85238	-74.54061

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-EES-10	Ephemeral	1111	-	-	-	42.85416	-74.54246
S-EES-11	Intermittent	958	-	-	-	42.85410	-74.53432
S-EES-12	Perennial	3159	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.85271	-74.53492
S-EES-13	Ephemeral	333	-	-	-	42.85328	-74.53368
S-EES-14	Ephemeral	88	-	-	-	42.85402	-74.53479
S-EES-15	Ephemeral	271	-	-	-	42.85319	-74.53538
S-EES-16	Ephemeral	233	-	-	-	42.84549	-74.50070
S-EES-17	Ephemeral	237	-	-	-	42.84570	-74.50135
S-EES-18	Ephemeral	119	-	-	-	42.84592	-74.50288
S-EES-19	Ephemeral	111	-	-	-	42.84622	-74.50393
S-EES-20	Ephemeral	2752	-	-	-	42.84424	-74.49438
S-EES-21	Intermittent	96	-	-	-	42.84348	-74.49935
S-EES-22	Intermittent	1507	-	-	-	42.84227	-74.49675
S-EES-23	Ephemeral	701	-	-	-	42.84162	-74.49621
S-EES-24	Intermittent	903	-	-	-	42.84207	-74.49468

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-EES-25	Ephemeral	49	-	-	-	42.84312	-74.49767
S-EES-26	Intermittent	394	-	-	-	42.83219	-74.50536
S-EES-27	Intermittent	672	-	-	-	42.83268	-74.50561
S-EES-28	Intermittent	2225	-	-	-	42.83350	-74.50535
S-EES-29	Intermittent	185	-	-	-	42.83455	-74.50454
S-EES-30	Ephemeral	91	-	-	-	42.83419	-74.50336
S-EES-31	Ephemeral	84	-	-	-	42.83430	-74.50327
S-EES-32	Intermittent	758	-	-	-	42.83483	-74.50126
S-IBP-01	Intermittent	153	-	-	-	42.84276	-74.51170
S-JMP-01	Ephemeral	628	-	-	-	42.85823	-74.47683
S-JMP-02	Intermittent	4028	-	-	-	42.85204	-74.47588
S-JMP-03	Intermittent	473	-	-	-	42.85088	-74.47837
S-JMP-04	Ephemeral	1754	-	-	-	42.85008	-74.47530

**Table 13-4. Delineated Streams in the Facility Site**

Stream Field Designation	Flow Regime Classification	Linear Feet within Wetland Survey Area	NYSDEC Stream Name and Regulatory ID Number	NYSDEC Classification	Waterbody ID Number (WIN)	Latitude of Centroid	Longitude of Centroid
S-JMP-05	Perennial	1296	876-252 Lasher Creek	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.85742	-74.46850
S-JMP-06	Intermittent	96	-	-	-	42.85738	-74.46828
S-JMP-07	Intermittent	401	-	-	-	42.85827	-74.46832
S-JMP-09	Intermittent	1801	-	-	-	42.85221	-74.51812
S-JMP-10	Intermittent	92	-	-	-	42.85478	-74.51046
S-JMP-11	Ephemeral	139	-	-	-	42.83992	-74.49047
S-JMP-12	Ephemeral	116	-	-	-	42.83999	-74.49132
S-JMP-13	Intermittent	155	-	-	-	42.83966	-74.49343
S-JMP-14	Ephemeral	176	-	-	-	42.84039	-74.49572
S-JMP-15	Ephemeral	415	-	-	-	42.84024	-74.49714
S-JMP-15	Perennial	3024	-	-	-	42.84024	-74.49714
S-JMP-16	Ephemeral	464	-	-	-	42.84090	-74.49232



**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-JMP-17	Ephemeral	73	-	-	-	42.84046	-74.49249
S-JMP-18	Intermittent	1197	-	-	-	42.84120	-74.49066
S-JMP-19	Ephemeral	244	-	-	-	42.84056	-74.49073
S-JMP-20	Ephemeral	63	-	-	-	42.84017	-74.49083
S-JMP-21	Ephemeral	18	-	-	-	42.84158	-74.49823
S-JMP-22	Ephemeral	115	-	-	-	42.84005	-74.49687
S-JMP-23	Ephemeral	346	-	-	-	42.83834	-74.49551
S-JMP-24	Ephemeral	229	-	-	-	42.83630	-74.49383
S-JMP-25	Ephemeral	219	-	-	-	42.83572	-74.49277
S-JMP-26	Ephemeral	198	-	-	-	42.83510	-74.49185
S-JMP-28	Intermittent	375	-	-	-	42.85647	-74.51246
S-MLM-01	Intermittent	278	-	-	-	42.84380	-74.45959
S-MLM-02	Intermittent	996	-	-	-	42.84363	-74.46081

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-MLM-03	Intermittent	471	876-253 Lasher Creek and tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.85641	-74.485478
S-MLM-04	Intermittent	165	-	-		42.85653	-74.485946
S-MLM-05	Intermittent	329	-	-		42.85818	-74.494828
S-NSD-01	Intermittent	5	-	-	-	42.86786	-74.47900
S-NSD-04	Intermittent	1542	876-253 Lasher Creek and tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.87093	-74.47615
S-NSD-05	Intermittent	396	-	-	-	42.87061	-74.47511
S-NSD-06	Intermittent	74	-	-	-	42.86517	-74.47781
S-NSD-07	Ephemeral	375	-	-	-	42.86203	-74.47664

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-NSD-08	Perennial	623	-	-	-	42.86144	-74.48086
S-NSD-09	Perennial	1084	876-253 Lasher Creek and tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.86315	-74.48399
S-NSD-10	Ephemeral	801	-	-	-	42.86211	-74.48553
S-NSD-11	Intermittent	523	-	-	-	42.86289	-74.48842
S-NSD-12	Ephemeral	401	-	-	-	42.86100	-74.47694
S-NSD-13	Ephemeral	269	-	-	-	42.86164	-74.48342
S-NSD-14	Perennial	4828	876-252 Lasher Creek	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.86399	-74.48326
S-NSD-15	Intermittent	808	-	-	-	42.86332	-74.48705

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-NSD-16	Intermittent	74	-	-	-	42.84298	-74.52677
S-NSD-17	Intermittent	1448	-	-	-	42.83997	-74.52715
S-NSD-18	Ephemeral	32	-	-	-	42.84078	-74.53367
S-NSD-19	Intermittent	290	-	-	-	42.84380	-74.53221
S-NSD-20	Intermittent	61	-	-	-	42.84236	-74.53331
S-NSD-21	Intermittent	125	-	-	-	42.84247	-74.53947
S-NSD-22	Intermittent	127	-	-	-	42.84412	-74.53884
S-NSD-23	Intermittent	2217	-	-	-	42.84596	-74.52436
S-NSD-24	Intermittent	158	-	-	-	42.84545	-74.52224
S-NSD-25	Intermittent	1200	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.84736	-74.51800
S-NSD-26	Intermittent	1267	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.84305	-74.51682
S-NSD-27	Ephemeral	151	-	-	-	42.84236	-74.51677
S-NSD-28	Intermittent	839	-	-	-	42.84111	-74.51845

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-NSD-29	Intermittent	606	-	-	-	42.83884	-74.51617
S-NSD-30	Ephemeral	71	-	-	-	42.84174	-74.51496
S-NSD-31	Intermittent	79	-	-	-	42.84343	-74.51020
S-RDS-01	Intermittent	3883	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.83996	-74.51440
S-RDS-02	Ephemeral	108	-	-	-	42.83812	-74.51560
S-RDS-03	Ephemeral	246	-	-	-	42.83948	-74.51554
S-RDS-04	Ephemeral	197	-	-	-	42.83938	-74.51483
S-RDS-05	Perennial	1616	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.82927	-74.48558
S-RDS-06	Perennial	6617	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.83284	-74.48893
S-RDS-07	Ephemeral	236	-	-	-	42.83040	-74.48510
S-RDS-08	Ephemeral	95	-	-	-	42.83145	-74.48691

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-RDS-09	Perennial	486	876-259 Flat Creek and tribs	C	H-240-102, Flat Creek and tribs	42.83901	-74.48862
S-RDS-10	Intermittent	886	-	-	-	42.83256	-74.48528
S-RDS-11	Intermittent	215	-	-	-	42.83170	-74.48447
S-RDS-12	Ephemeral	72	-	-	-	42.83159	-74.48429
S-RDS-13	Intermittent	314	-	-	-	42.88545	-74.54171
S-RDS-14	Intermittent	310	-	-	-	42.88577	-74.54292
S-RDS-15	Intermittent	349	-	-	-	42.88610	-74.54433
S-RDS-16	Intermittent	331	-	-	-	42.88645	-74.54531
S-RDS-17	Intermittent	262	-	-	-	42.88648	-74.54585
S-RDS-18	Intermittent	392	-	-	-	42.8869	-74.54675

**Table 13-4. Delineated Streams in the Facility Site**

<b>Stream Field Designation</b>	<b>Flow Regime Classification</b>	<b>Linear Feet within Wetland Survey Area</b>	<b>NYSDEC Stream Name and Regulatory ID Number</b>	<b>NYSDEC Classification</b>	<b>Waterbody ID Number (WIN)</b>	<b>Latitude of Centroid</b>	<b>Longitude of Centroid</b>
S-RDS-19	Intermittent	586	876-260 Mohawk River and Tribs	C	H-240- 90 thru 126 (selected) Minor Tribs to Mohawk River	42.88545	-74.54171
<b>Total Stream Length Delineated (ft):</b>		<b>100,455</b>					

#### ***(4) Downstream Drinking Water Supply Intakes***

The Applicant evaluated the potential for downstream drinking water impacts 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.

Review of the DEC info Locator indicated that there is one downstream drinking water supply located in the vicinity of the Facility Site (NYSDEC, 2023). This drinking water supply is in the Village of Fultonville, approximately 7.5 miles northeast of the closest Facility Site parcel and 7.6 miles from the closest Facility component. The most recent publicly available data for the Village of Fultonville public drinking water supply is a Water Withdrawal Reporting Form for the year of 2021. This water supply has a total of 327 water service connections serving 740 people. This water supply is withdrawn from two wells in the Village of Fultonville.

There are no NYSDEC-listed agricultural water sources within the Facility Site, or directly downstream of the Facility Site. The closest agricultural water source occurs approximately 3 miles northeast of the Facility Site. No impact to this water source is anticipated due to its distance from the Facility Site.

#### ***(5) Avoidance of Impacts on NYS Protected Waters***

As described above, 122 streams were identified within the WSA during delineation efforts. Per the ORES JD received on September 27, 2023, one stream (tributary to Flat Creek), identified as two unique TRC ID's (S-EES-03 and S-RDS-06), is State protected under ECL 15-0505 as it is considered a Navigable Water. Where Facility components are proposed to cross Flat Creek, including underground collection line crossing and one access road crossing, impacts will be avoided or minimized to the extent practicable. Where the Facility crosses Flat Creek at TRC ID S-EES-3, the 10 parallel collection lines will be installed via HDD. A small LOD corridor is proposed for workspace and to allow equipment to cross from one HDD bore pit to the other HDD bore pit. This crossing will occur where Flat Creek is approximately 19.34 feet wide. The proposed design for the crossing at TRC ID S-RDS-06, the total impact is 211.13 linear feet due to access road construction (14.8 linear feet), grading (3.88 linear feet), culvert/bridge installation (9.11 linear feet), and LOD (183.27 linear feet). A single collection line will be installed via HDD under the stream.



### ***(6) Minimization of Impacts on NYS Protected Waters***

The Applicant has worked to avoid and minimize impacts to NYS protected waters with careful component siting and Project design. Unavoidable impacts will be assessed to determine any required compensatory mitigation. The preliminary SWPPP (Appendix 13-2) will describe specific erosion control practices to be utilized onsite during construction to minimize any impacts to NYS protected waters.

Certain construction activities have potential to result in direct and/or indirect impacts to surface waters. These activities include the installation of access roads, and the installation of buried electrical collection lines. Natural resources will have a 100-foot buffer around them outside of the proposed LOD to avoid direct impacts. Impacts to Flat Creek, a designated navigable water correlating to TRC delineated streams S-RDS-6 and S-EES-3, will be minimized using HDD boring for underground collection line crossings and by crossing at narrow, low impact areas where feasible. In this location (southeast portion of the Facility Site), the Applicant will cross at an existing location the landowner is using. This location is not upland and the landowner is crossing through a low flow area of the stream and narrow area of the wetland. The Applicant is proposing to install a culvert to cross this area. Flat Creek's water quality will be improved at the proposed access road crossing, and its bank erosion reduced, through the installation of an appropriately sized bridge crossing. The culvert that will be installed consists of a three-sided bridge 24x8 feet in total size and will run 25 linear feet. This access road installation and stream crossing was required to access three array areas to the north. By utilizing and upgrading the existing crossing, the Applicant did not cross this stream in a previously undisturbed location. This will minimize the impacts to Flat Creek during both construction and operation of the Facility.

Implementation of BMPs outlined in the SPCC Plan and the preliminary SWPPP will minimize or avoid sedimentation and pollution related impacts to the maximum extent practicable. Impacts to wetlands and streams have been largely avoided to the maximum extent practicable through the siting of components away from these resources. In select locations, the Applicant is proposing the use of trenchless crossing methods, including HDD, to avoid impacts to regulated resources.

### ***(7) Stream Restoration and Mitigation Plan***

As described above in sections (b)(5) and (6), impacts to state-protected streams have been minimized and avoided through careful component siting and the implementation of proper setbacks. The proposed construction activities, including culvert/bridge installation to cross Flat

Creek are not subject to compensatory mitigation. This is considered an allowable activity and therefore a Stream Restoration and Mitigation Plan is not required for the Facility.

### **13(c) Stormwater**

#### ***(1) Preliminary 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 any:

*...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.*

This authorization is subject to review by NYSDEC but is coordinated with the Article VIII process. The Applicant will seek coverage under the NYSDEC SPDES General Permit for the construction phase of the Facility.

The Applicant has prepared a preliminary SWPPP in accordance with the guidelines set forth in GP-0-20-001 and has included it as Appendix 13-2 herein. The preliminary SWPPP describes in specific terms the erosion and sediment control practices that will be implemented during construction activities, and the stormwater management practices that will be used to reduce the pollutants in stormwater discharges after Facility construction has been completed. As part of these requirements, an 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 preliminary SWPPP has been prepared as part of the requirements for coverage under GP-0-20-001. It is anticipated that an electronic Notice of Intent (eNOI) will be prepared and submitted to the NYSDEC (with a copy filed with ORES), who will review and authorize a SPDES General Permit number along with the NYSDEC Letter of Acknowledgement certifying that the Facility will comply the technical requirements of GP-0-20-001 prior to construction. The Applicant will request a five-acre waiver to disturb greater than five acres at one time during construction. Once the Facility receives this required documentation, the Letter of Acknowledgement will be inserted

within the preliminary SWPPP and kept onsite, as required by GP-0-20-001. The eNOI will be included in Attachment A of the preliminary SWPPP.

## ***(2) Preliminary Post-Construction Stormwater Management Practices Plan***

The preliminary SWPPP provides information on stormwater management practices, including erosion and sediment control (vegetative and structural measures, temporary and permanent measures), construction phasing and disturbance limits, waste management and spill prevention, and site inspection and maintenance. Pre- and post-development hydrology, in addition to evaluation of runoff and drainage patterns, will be analyzed as part of stormwater design in accordance with final Facility layout, and if necessary, the preliminary SWPPP will be updated prior to construction.

### **13(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 NYS is proposed. On a typical solar project, 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 systems are 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).

To minimize the potential impact to aquatic resources from minor leaks or mechanical failures of construction equipment/vehicles, the Facility will adhere to an SPCC Plan that will be submitted prior to the start of construction.

This plan dictates that all contractors will be required to keep materials on hand to control and contain a petroleum spill. In accordance with §1100-6.4(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) shall also be notified of all reported spills in a timely manner.

Contractors will be responsible for ensuring responsible 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 NYS is not proposed. In accordance with Article VIII regulations, if any fuel storage is required it will be properly contained and located at least 300 feet from wetlands, waterbodies, and streams. Equipment storage, refueling, maintenance, and repair will also be conducted and safely contained more than 100 feet from all wetlands, waterbodies, and streams, and stored properly at the end of the day. 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. 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.

**13(e) Aquatic Species and Invasive Species:**

***(1) Biological Aquatic Resource Impacts***

It is assumed that any potential impacts to surface waters within the Facility Site could potentially impact ecologies, organisms, and ecosystems dependent upon these aquatic resources through the introduction of invasive species. Only a small portion of these biological complexes, however, could be impacted by the construction and operation of the Facility due to its siting design. Exhibit 14 directly addresses 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 (WSCR) (Appendix 12-1) within this Application discuss NYS threatened and endangered species that may be impacted by the Facility.

TRC, on behalf of the Applicant, consulted local, State, and federal desktop databases and environmental agencies to determine common species documented to occur in the region of the Facility Site. A list of animal species likely to occur on the Facility Site within each vegetative community is included in Exhibit 11 as Appendix 11-2 (Flat Creek Wildlife Inventory Table). Appendix 11-2 was completed based on publicly available data sources and observations made during field surveys and site visits. None of the aquatic invasive species within the Common Aquatic Invasive Species of New York list (NYSDEC, n.d.) were documented during onsite survey work conducted by environmental field staff. Therefore, adverse impacts to aquatic biology resulting from the spread of invasive species caused by Facility construction are not anticipated.

During onsite wetland and stream delineations, the most common terrestrial invasive species observed included Canada thistle (*Cirsium arvense*), common reed (*Phragmites australis*), Japanese honeysuckle (*Lonicera japonica*), and Japanese knotweed (*Reynoutrutria japonica*). Common reed and Japanese knotweed are commonly associated with the edges of waterbodies or with wetlands. No aquatic invasive species were identified. Pursuant to §1100-10.2(f)(4), and in compliance with 6 NYCRR Part 575, the Applicant will prepare and submit an Invasive Species Control and Management Plan (ISCMP), included in Appendix 11-1 of Exhibit 11, as a pre-construction compliance filing, including baseline mapping of all invasive species within 100 feet of the limits of construction activity and an identification of specific control, removal, monitoring, management, and disposal methods to be implemented for each identified invasive species.

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

The Facility has been designed to avoid impacts to aquatic resources where applicable through careful siting of Facility components and utilizing 50-foot buffers around State-jurisdictional resources. Stream crossings have been sited to occur in at the narrowest point, where feasible. Impacts to Flat Creek, which is identified as two separate TRC ID's (S-EES-03 and S-RDS-06), will be minimized through the use of HDD boring techniques for underground collection line installation (S-EES-03) and through constructing crossings as low impacts areas (S-RDS-06). Where the access road crossing of Flat Creek is proposed, an existing farm access road occurs. This indicates that this small portion of Flat Creek is likely frequently disturbed by farming equipment driving through the stream. Flat Creek's water quality will be improved at this crossing, and bank erosion reduced, through the installation of an appropriately sized culvert or bridge crossing. This crossing is unavoidable as it is the only access point to three fields that contain

solar panels. Without this crossing these panel areas would have to be accessed from the north that could cause more impacts to streams and wetlands. As described herein, the Applicant will adhere to the preliminary SWPPP, SPCC Plan, and BMPs for the Facility, as well as the USCs under Article VIII. Based on the careful siting of Facility components and avoidance and minimization of impacts, no permanent impacts on aquatic biological resources are anticipated.

Protection of surface waters during Facility construction through avoidance and implementation of the preliminary SWPPP, SPCC Plan, and BMPs, will in turn protect the biological aquatic resources that depend on these surface waters. Any surface water impacts anticipated to occur as a direct result of construction of the Facility shall be minimal.

### **13(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 a navigable WOTUS and require a federal permit, the Applicant shall request and, prior to commencing construction, obtain an individual Water Quality Certification (WQC) from ORES 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 applying for an individual WQC concurrently with the Section 404 permit for the Facility. Based on the impacts to WOTUS associated with the Facility, the Applicant anticipates the need for Individual Permit coverage for construction of the Facility. The Applicant intends to apply for the Individual Permit upon the Article VIII Application being deemed complete. Specific information regarding water quality standards and the resources onsite can be found in the Wetland and Stream Delineation Report (Appendix 14-1) of Exhibit 14; specific information regarding additional permits may be found in Exhibit 25 (Other Permits and Approvals). The Applicant expects that the construction and operation of this Facility shall comply with the New York State Water Quality Standards, as described in 6 NYCRR Section 608.9, pursuant to compliance with Section 401 of the CWA.

#### ***(2) Related Federal Permit Applications***

The Applicant will apply for the Section 401 WQC in accordance with §1100-1.4 upon the Article VIII Application being deemed complete.

As stated above, the Applicant anticipates the need for a coverage under Section 401 of the CWA for impacts to WOTUS related to the Facility. Due to the limited impacts to federally regulated WOTUS, the Applicant will be applying for coverage under an Individual Permit. Additional information regarding these anticipated submittals can be found in Exhibit 25. The Applicant will initiate the Preliminary Jurisdictional Determination (PJD) and Approved Jurisdictional Determination (AJD) process when the Nationwide Permit (NWP) request is submitted.

**(3) Compliance with 6 NYCRR Section 608.9**

As stated above, the Applicant is seeking an individual WQC pursuant to 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 process for the Facility is described above in Section 13(f)(2). The Application will be filed with the Upstate Regulatory Office of the New York District of the USACE 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 Applicant expects the Facility to be in compliance with State water quality standards.

## References

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