NORTH SENECA
SOLAR PROJECT

North Seneca Solar Project

ORES Permit Application No. 23-00036

1100-2.14 Exhibit 13:

Water Resources and Aquatic Ecology

REDACTED

REVISION 1

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EXHIBIT 13 WATER RESOURCES AND AQUATIC ECOLOGY

(a) Groundwater

(1) Hydrologic Information

North Seneca Solar Project, LLC (the Applicant) proposes to construct the North Seneca Solar Project, an up to 90-megawatt solar energy generating facility located within the Towns of Waterloo and Junius, Seneca County, New York (the Facility). The Facility Site will be located on private lands that are primarily rural in nature and will encompass approximately 940 acres, of which approximately 390 acres will be occupied by Facility infrastructure.

According to a review of the United States Department of Agriculture (USDA) Soil Survey Geographic Database (SSURGO), depth to groundwater ranges from the ground surface to more than 8 feet below ground surface throughout the Facility Site, with a high-water table most common in low-lying areas within and adjacent to wetlands. The SSURGO data also indicates that depth to bedrock may vary throughout the Facility Site, ranging from as shallow as ground level to more than 10 feet below the surface (SSURGO, 2022).

In support of Exhibit 10 (Geology, Seismology and Soils) the Applicant retained Terracon, to prepare a *Geotechnical Engineering Report* (Appendix 10-A). The report includes a summary of soil borings throughout the Facility Site. Groundwater was encountered at 7 of the 26 soil borings, at varying depths, ranging between 6 and 18 feet below the existing ground surface, with an average of 13 feet below ground surface. Bedrock was not encountered at any of the boring sites, indicating that shallow bedrock is not a concern within the Facility Site. The results of the borings reflect more site-specific subsurface conditions associated with the locations of Facility components than the publicly available SSURGO data (Exhibit 10).

Maps showing the geotechnical soil boring locations, as well as depth to bedrock and depth to water table throughout the Facility Site based on the USDA Web Soil Survey are provided in Figure 10-4.

(2) Groundwater Resources

On behalf of the Applicant, Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) sent private well surveys on May 24, 2023, to all residences and businesses located within 1,000 feet of the Facility Site, which resulted in a total of 178 properties.[1] The water well survey form included a brief summary of the proposed Facility and the Article VIII process, contact information for the Applicant, a description of where the well owner can obtain more information about the Facility, and a questionnaire that included questions regarding the location, depth, depth to groundwater, size, yield, and sampling history of any identified wells on their property

[1] The private well survey mailing was based on a preliminary Facility Site that encompassed a larger footprint then the currently proposed Facility Site. Therefore, additional wells outside 1,000 feet of the current Facility Site were identified.

(Appendix 13-A). Included with the questionnaire was a stamped and EDR-addressed return envelope as well as instructions for alternative response methods to facilitate return of the surveys from landowners.

Based on the responses received, a total of 27 private water wells were identified, including 20 wells within 1,000 feet of the Facility Site, three of which occur within the Facility Site. Survey respondents included six of the seven participating landowners who responded with well information for 13 of the 14 participating parcels. No response was received for the remaining parcel; however, additional data collected during the ALTA survey indicate that no wells are present on this property. The constructed depths of private wells identified range from 15 to 200 feet below grade with an average depth of approximately 78 feet. The identified private wells are primarily installed in bedrock and sand-gravel and are generally used for residential purposes. Groundwater yields of these wells are largely unknown by respondents; however, one landowner reported yields of up to 70 gallons per minute (gpm). The Applicant will consult with landowners to field verify all wells within participating parcels, and those located within the distances set forth in 16 New York Codes, Rules, and Regulations (NYCRR) Section 1100-2.14(a)(2)(i)-(iv). This field verification effort will be completed prior to Facility construction. The private well survey responses are included in Appendix 13-B.

In addition, EDR sent Freedom of Information Law (FOIL) requests to several state and county agencies requesting information pertaining to public and private groundwater well or surface water drinking water supply intakes within one mile of the proposed Facility. Letters were sent to the Seneca County Water and Sewer Department, the Seneca County Soil and Water Conservation District (SWCD), the Seneca County Department of Health, the New York State Department of Health (NYSDOH), and the New York State Department of Environmental Conservation (NYSDEC) in June 2023 (Appendix 13-A).

The NYSDEC responded via email on July 14, 2023, identifying 57 water wells within one mile of the Facility Site. The NYSDOH did not identify active groundwater wells; however, three public water systems were noted to be located within one mile of the Facility Site. On June 26, 2023, the Seneca County SWCD responded via email indicating they did not have data pertaining to public water supplies. No responses have been received from the Seneca County Water and Sewer Department or the Seneca County Department of Health at the time of this application.

Table 1 and Table 2 of Appendix 13-B summarize the available information regarding private water wells within 1,000 feet of the Facility Site and public water supplies identified within one mile of the Facility Site based on the voluntary responses to the private well surveys and consultation with state and local agencies. The locations of private and public water sources within 1,000 feet of the Facility Site are depicted on Figure 13-1 (Groundwater Well Offsets) and Figure 13-2 (Groundwater Aquifer and Recharge Areas). The water well locations identified through landowner coordination and NYSDEC mapping often coincide or are relatively nearby; however, the NYSDEC mapping data is derived from a variety of sources and has not been field verified. As such, the positional accuracy of NYSDEC-mapped well locations area considered "approximate."

There are no known active water wells within 100 feet of any proposed collection lines or access roads. Several identified wells are located within 500 feet of locations proposed for horizontal directional drilling operations. One water well identified by the landowner in response to the private well survey is located within 200 feet of proposed photovoltaic (PV) arrays. In addition, a second well location identified by the NYSDEC (Well ID SE721) is mapped within 100 feet of proposed PV arrays. However, the GPS coordinates and location description on the well completion report, available from NYSDEC, indicate the actual well location is outside of the Facility Site along Mills Road (NYSDEC, 2023; NYSDEC, 01). Further, no active well was identified in the NYSDEC mapped location by the landowner or during the ALTA survey. As previously noted, the Applicant will consult with landowners to field verify all wells within participating parcels and in proximity to proposed Facility components during final design. Pile or post driving activities will not be permitted within 100 feet of any existing, active drinking water supply well in accordance with 16 NYCRR Section 1100-6.4(n)(2)(i). Blasting activities are not currently anticipated for the construction of the Facility. However, if deemed necessary, blasting would not be conducted within 1,000 feet of an existing active water supply well on a non-participating property consistent with 16 NYCRR Section 1100-6.4(n)(2) requirements.

A review of groundwater aquifer resources in the vicinity of the Facility Site included available spatial data of primary and unconsolidated aquifers that were mapped by the United States Geological Survey (USGS) in cooperation with the NYSDEC and local agencies, as well as sole source aquifers mapped by the United States Environmental Protection Agency (USEPA). According to the USGS unconsolidated aquifer mapping, a portion of the Facility Site overlaps two unconfined aquifers, one of which has a reported yield of 10 to 100 gpm, the other of unknown yield. Additionally, one confined aquifer of 5 to 500 gpm with no overlying surficial aquifer occurs at the southwest portion of the Facility Site. None of the identified unconsolidated aquifers are designated a primary aquifer; however, unconfined aquifers with yields of 10 to 100 gpm or greater are considered by the NYSDEC to be Principal Aquifers unless contradictory site-specific information is made available to the NYSDEC. The Facility Site does not overlap any part of a primary or sole source aquifer. The nearest primary aquifer is located approximately 23 miles northeast of the Facility Site and the nearest sole source aquifer is located over 33 miles southeast of the Facility Site. Groundwater aquifers within the Facility Site are depicted in Figure 13-2 (Groundwater Aquifers and Recharge Areas)

(3) Groundwater Impacts

The Facility is not anticipated to result in any significant impacts to groundwater quality or quantity, or to any public or private drinking water supply wells, aquifer protection zones, or groundwater aquifers on or within a 1-mile radius of the Facility Site (Figure 13-1 [Groundwater Well Offsets] and 13-2 [Groundwater Aquifers and Recharge Areas]). Excavations for the access roads, collection substation, point of interconnection (POI) substation, inverter foundations, and underground collection lines are expected to be shallow (i.e., less than 10 feet deep). If shallow or perched groundwater is encountered during the construction of these foundations, common engineering practices, such as dewatering, will be employed.

Based on the data reviewed and the planned setback distances required by Article VIII, it is unlikely construction of the proposed Facility will have an impact on shallow aquifer or residential water well groundwater quality or quantity. Groundwater wells in the vicinity of the Facility Site have an average depth of approximately 78 feet (excluding the six wells with unknown well depths) below grade based on data obtained from the private well survey (Table 13-1). These depths are generally deeper within fractured bedrock or granular soil than the excavations and pile driving proposed for Facility construction. As stated previously, the Applicant will field verify all wells and will conduct pre- and post-construction testing of the potability of such wells on participating parcels and within the distances of certain Facility components set forth in 16 NYCRR Section 1100-6.4(n)(2).

Trenchless installations, such as jack and bore or horizontal directional drilling (HDD), are planned for limited crossings involving sensitive resources (e.g., wetlands, streams, cultural resources, and public roads). Boring equipment would be set up on either side of the crossing, outside of sensitive or restricted areas such that no surface disturbance is required between the bore pits. HDD methods utilize a lubricant during drilling, and therefore have the potential to result in a surface release of the drilling fluid, or an "inadvertent return." To address this possibility, the Applicant will develop and submit an Inadvertent Return Plan as a pre-construction compliance filing. This plan will outline the protective measures to be taken when HDD methods are utilized to minimize the impact of inadvertent returns and prevent any impact to groundwater wells. Additionally, the Applicant will adhere to the requirements of Section 1100-6.4(n)(2) to conduct pre- and post-construction testing of the potability of water wells on non-participating properties within 500 feet of proposed HDD locations to monitor for potential HDD impacts.

The Facility will add only small areas of impervious surface, including access roads, inverters, the collection substation, storage trailer, and the POI substation, which total approximately 9 acres and will be dispersed throughout the Facility Site. Additionally, stormwater management practices will be implemented as detailed in the Stormwater Pollution Prevention Plan (SWPPP) (Appendix 13-C); therefore, the Facility is anticipated to have a negligible effect on groundwater recharge.

Although the Applicant has designed the Facility to reduce the potential for impacts to groundwater and aquifer resources, and best management practices will further reduce the likelihood of impacts, construction of the proposed Facility has the potential to result in certain localized impacts to groundwater and its use by adjacent landowners. These impacts could include the following:

- Minor degradation of groundwater quality from accidental spills
- Minor localized disruption of groundwater flows
- Groundwater migration along collection line trenches
- Minor modification to surface runoff or stream flow, thereby affecting groundwater recharge characteristics

- Minor impacts to groundwater recharge areas (wetlands).

Impact to groundwater from the accidental discharge of petroleum or other chemicals used during construction, operation, or maintenance could occur in the form of minor leaks, or from more substantial spills during refueling and other accidents. However, the likelihood of these impacts occurring is low because the Applicant has developed avoidance, minimization, and mitigation measures that are outlined in the Facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan (Appendix 13-D). See Section 13(c)(1) for a discussion of the SPCC Plan and other mitigation measures.

As indicated by the *Geotechnical Engineering Report* (Appendix 10-A), groundwater levels at the Facility Site may fluctuate due to seasonal variation, the amount of rainfall, soil permeability, and other factors. Therefore, groundwater levels during construction may be higher or lower than the levels indicated on the boring logs. Should shallow or perched groundwater be encountered, any construction impacts will be addressed through typical engineering measures and construction techniques, including dewatering. During dewatering, sediment laden water will be sufficiently filtered in upland locations and not discharged into wetlands or streams. Water velocity dissipation will be provided at all discharge points. Dewatering activities will not cause erosion in receiving channels or adversely impact water resources. The determination of any long-term dewatering (if necessary) will be addressed during final geotechnical investigations to be conducted following issuance of the Siting Permit.

Installation of foundations for certain components (e.g., the collection substation, POI substation, and inverter pads) and large-scale grading could intercept the water table. However, these disturbances are not anticipated to be deep, or extensive, enough to disrupt groundwater flows or affect water quality. Installation of solar panel racking will involve high-speed impact hammers that will drive steel piles to an approximate depth of up 12 feet. Vibrations generated by high-speed hammers are typically low, transfer at short distance, and are not anticipated to result in interaction with nearby public or private water wells including changes in water quality or quantity. As previously noted, blasting activities are not anticipated for the construction of this Facility.

Minor impacts to groundwater could also result from the installation of buried collection lines, which may facilitate groundwater migration along trench backfill in areas of shallow groundwater. Due to the decompaction of soils within the trench of the buried collection lines, water could collect in the trench and migrate to areas of lower elevation where it will be either reach the surface or naturally infiltrate back into the water table with negligible loss of volume. Where needed, trench breakers will be installed to reduce groundwater migration along underground collection line trenches. Trench breakers would consist of sandbags or alternative materials. The need for and location of these mitigating practices would be determined in the field and/or as identified in construction documents.

To avoid potential impacts to groundwater, the Applicant will implement best management practices outlined in the Facility's SWPPP (Appendix 13-C) and SPCC Plan (Appendix 13-D) and will implement protections for wetlands, waterbodies, and streams consistent with 16 NYCRR Section 1100-6.4 (p) and (r). Furthermore, as previously noted, there are no wells that service a public water supply within the Facility Site. Therefore, based on the distance between the Facility Site and known locations of

groundwater wells and protected aquifers, and the fact the proposed Facility does not involve the siting of landfills, oil and gas wells, or other industrial practices with potentially hazardous and contaminated materials, construction and operation of the Facility are not anticipated to result in impacts to public groundwater supply and would not be subject to review under the Safe Drinking Water Act of 1974 or regulations pursuant to the Upstate New York Groundwater Management Program.

(b) Surface Waters

(1) Surface Waters Map

Maps showing the location of all federal, state, and/or locally regulated surface waters within the Facility Site and within 100-feet of areas to be disturbed by construction are depicted in Figure 14-2 and presented in more detail in the *Wetland and Stream Delineation Report* (Appendix 14-A). Wetland and stream delineations conducted at the Facility Site defined the boundaries of all surface waters (ponds; ephemeral, intermittent, and perennial streams; and wetlands) within the Wetland Study Area. Shapefiles of these data, and a copy of the *Wetland and Stream Delineation Report*, were submitted to ORES and NYSDEC staff on July 18, 2023. The identification of surface waters within the Wetland Study Area were mapped by EDR using a combination of publicly available data from Seneca County, NYSDEC, the Environmental Systems Research Institute (ESRI), the USGS, and the National Wetlands Inventory, as well as recent orthoimagery collected by the New York State Digital Orthoimagery Program in 2018.

(2) Wetland and Stream Delineation Report

On-site wetland and stream delineations were conducted by EDR between July and November 2022. Data were collected on all wetlands, water courses and other surface waters that were identified within the Wetland Study Area. Wetlands within the Facility Site are discussed in Exhibit 14, and the results of the on-site field delineations are documented in the *Wetland and Stream Delineation Report* (Appendix 14-A).

Streams were identified according to the Cowardin et al. (1979) classification system, and stream boundaries were determined based on the presence of ordinary high water line characteristics, including a "clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris" (33 Code of Federal Regulations 329.11). These boundaries were defined in the field with sequentially numbered surveyor's flagging and mapped using a GPS unit with reported sub-meter accuracy. Stream flow regime (i.e., perennial, intermittent, or ephemeral) was determined through evaluation of hydrologic, geomorphic, and biological characteristics (NC DWQ, 2010). Data regarding stream gradient (gentle, moderate, or steep), stream bank and channel width, water depth, stream bed substrate, in-stream cover, and biological indicators were collected and recorded on stream inventory forms (Appendix 14-A [Wetland and Stream Delineation Report]).

(3) Description of Surface Waters

The Facility Site is located entirely within the Seneca County Hydrologic Unit (04140201). During on-site delineations conducted by EDR, 16 perennial, intermittent, and ephemeral streams totaling 19,525 linear feet were identified within the Wetland Study Area. Most of the streams were observed to be located adjacent to, or within, forested or early successional scrub-shrub areas, hedgerows, or between agricultural fields. Streams delineated within the Facility Site and within 100 feet of areas to be disturbed by construction, are listed in Table 13-1, shown in Figure 14-1 (Delineated Wetlands and Streams), and further described in the *Wetland and Stream Delineation Report* (Appendix 14-A).

All waters of the state are provided with a class and standard designation based on existing or expected best usage, which also determines the protection status of a particular water or waterway. Streams with a classification of AA, A, or B, or a classification of C with a standard of (T) or (TS) are New York State protected streams pursuant to Article 15 of the Environmental Conservation Law (Protection of Waters) and Article VIII of the Public Service Law. Class C streams and Class D streams without a standard of (T) or (TS) are not considered state-protected streams under Article 15.

Streams within the Facility Site are limited to Class C and unmapped streams. Unmapped streams with intermittent flow assume a classification of D. The best usage of Class C waters is fishing and non-contact activities, and the best usage for Class D waters is fishing. There are no trout streams (i.e., streams with a standard of [T] or [TS]) within the Facility Site. No aquatic invasive plant species included in the list of aquatic species provided by the NYSDEC and the NYSDEC Part 575 List of *Prohibited and Regulated Invasive Species* (NYSDEC, 2014), were identified during on-site wetland and stream delineations. Terrestrial invasive species associated with wetland areas were identified (e.g., purple loosestrife [*Lythrum salicaria*], reed canary grass [*Phalaris arundinacea*], Morrow's honeysuckle [*Lonicera morrowii*], European buckthorn [*Rhamnus cathartica*]). Pursuant to 16 NYCRR Section 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 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.

Table 13-1. Delineated Surface Waters within the Facility Site

Stream Delineation ID[1]	Linear Feet of Stream Within Study Area	Flow Characteristics/ Stream Type[2]	Stream Name[3]	NYSDEC Stream Class[4]	Waterbody Identification Number (WIN)[5]	Stream Order[6]	Baseflow
05-ST001	1,218.6	R4	Dublin Brook	C	Ont. 66-12-52-18-2-4	1	Weak
05-ST002	66.4	R4	Unmapped	-	-	-	Weak
10-ST001	1,969.9	R4	Tribs. Of Clyde River and Barge Canal	C	Ont. 66-12-52-1-3b	1	Moderate
12-ST001	1,129.9	R3	Dublin Brook	C	Ont. 66-12-52-18-2-4	2	Strong
66-ST001A	21.1	R6	Unmapped	-	-	-	Absent
66-ST002A	361.5	R6	Unmapped	-	-	-	Absent
66-ST005	165.3	R4	Unmapped	-	-	-	Absent
66-ST007	64.8	R4	Dublin Brook	C	Ont. 66-12-52-18-1	2	Moderate
66-ST008	321.8	R4	Unmapped	-	-	-	Absent
66-ST009	1,284.3	R4	Unmapped	-	-	-	Weak
Total Streams:	19,525.2						

[1] Field ID assigned by EDR.
[2] R3=Perennial, R4=intermittent, R6=ephemeral.
[3] See 6 NYCRR Chapter X (Parts 800-941). Available at: https://www.dec.ny.gov/regs/2485.html.
[4]Based on publicly available NYSDEC stream mapping.
[5] Determined by reviewing 6 NYCRR Chapter X (Parts 800-941) and publicly available spatial data.
[6] Determined using the Strahler method.

The NYSDEC establishes water quality standards for specific substances, which are found in 6 NYCRR Part 703.2. 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). Table 13-2 provides the narrative water quality standards applicable to streams within the Facility Site.

Table 13-2. New York State Narrative Water Quality Standards

Parameter	NYSDEC Classification	Standard
Taste-, color-, and odor-producing, toxic, and other deleterious substances	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special, GA, GSA, GSB	None in amounts that will adversely affect the taste, color, or odor thereof, or impair the waters for their best usages.
Turbidity	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	No increase that will cause a substantial visible contrast to natural conditions.
Suspended, colloidal, and settleable solids	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	None from sewage, industrial wastes, or other wastes that will cause deposition or impair the waters for their best usages.
Oil and floating substances	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	No residue attributable to sewage, industrial wastes, or other wastes, nor visible oil film nor globules of grease.
Garbage, cinders, ashes, oils, sludge and other refuse	SA, SB, SC, I, SD	None in any amounts.
Phosphorus and nitrogen	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	None in amounts that will result in growths of algae, weeds, and slimes that will impair the waters for their best usages.
Radioactivity	A-Special	Should be kept at the lowest practicable levels, and in any event should be controlled to the extent necessary to prevent harmful effects on health.
Thermal discharges	GA, GSA, GSB	None in amounts that will impair the waters for their best usages.
Flow	AA, A, B, C, D, A-Special	No alteration that will impair the waters for their best usages.
pH	C, C(t)	Shall not be less than 6.5 nor more than 8.5.
	D	Shall not be less than 6.0 nor more than 9.5.
Dissolved oxygen	C, C(t)	For trout spawning waters (TS) the DO concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L. For non-trout 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.

Parameter	NYSDEC Classification	Standard
Dissolved solids	C	Shall not be less than 3.0 mg/L at any time.
		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)	C, D	The monthly median value and more than 20% of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively.
Fecal coliforms * (number per 100 mL)	C, D	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.

Sources: NYCRR 703.2, NYCRR 703.3, 6 NYCRR 703.4, 6 NYCRR 704.1

(4) Drinking Water Supply Intakes

As previously noted, the Applicant sought information from the Seneca County Water and Sewer Department, the Seneca County SWCD, the Seneca County Department of Health, the NYSDEC, and the NYSDOH pertaining to public water supplies (including public water supply intakes). The NYSDOH responded pursuant to Freedom of Information Law request on July 27, 2023 and identified three public community water systems within one mile of the Facility. The source of which is purchased surface water. The NYSDEC responded on July 14, 2023 with information on water wells but did not identify any surface water drinking water intakes. On June 26, 2023, the Seneca County SWCD responded via email indicating they did not have data pertaining to public water supplies. No responses have been received from the Seneca County Water and Sewer Department or the Seneca County Department of Health at the time of this application. Agency correspondence is included in Appendix 13-B.

(5) Avoidance and Minimization of Impacts to NYS Protected Waters

According to the Surface Waters Jurisdictional Determination issued by ORES on August 24, 2023 (Appendix 13-E), there are no New York State-protected surface waters within the Facility Site. Therefore, measures to avoid or minimize impacts to New York State-protected surface waters are not applicable.

(6) Measures to Avoid or Mitigate NYS Protected Waters

As stated above, no New York State-protected surface waters occur within the Facility Site. Therefore, measures to avoid or mitigate New York State-protected surface waters are not applicable.

(7) Stream Restoration and Mitigation Plan for NYS Protected Waters

As stated above, no New York State-protected surface waters occur within the Facility Site. Therefore, the development of a Stream Restoration and Mitigation Plan and the requirements of Section 1100-2.14(b)(7) are not applicable.

(c) Stormwater

(1) Stormwater Pollution Prevention Plan

Prior to construction, the Applicant will submit a Notice of Intent seeking coverage under the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity issued and effective as of January 29, 2020, or its successor (NYSDEC, 2020). This Clean Water Act (CWA) authorization has been delegated by the federal government to the NYSDEC. The NYSDEC Letter of Authorization will be submitted as a pre-construction compliance filing in accordance with 16 NYCRR Section 1100-10.2(a).

As required by the SPDES General Permit and on behalf of the Applicant, EDR developed a SWPPP (Appendix 13-C). The SWPPP includes: an introduction and overview of the proposed project, and the purpose and need and appropriate contents of a complete SWPPP; a description of anticipated stormwater management practices, including temporary and permanent erosion and sediment control measures (vegetative and structural); anticipated construction activities, including preliminary construction phasing and disturbance limits; waste management and spill control measures; proposed site inspection and maintenance measures, including construction site inspections and recordkeeping; and conditions that will allow for the termination of permit coverage.

(2) Post-Construction Erosion and Sediment Control Practices

As described above, the final SWPPP and associated erosion and sedimentation control plan submitted prior to construction will address the anticipated stormwater management practices and green infrastructure practices (e.g., vegetative filters) that will be used to reduce the rate and volume of stormwater runoff after Facility construction has been completed. The SWPPP also requires that there is at least one person on site daily to inspect the site's erosion and sediment control practices when soil disturbing activities are being performed. The SWPPP (Appendix 13-C) was prepared in accordance with New York State Standards and Specifications for Erosion and Sediment Control (Blue Book, November 2016), and the New York State Stormwater Management Design Manual (White Book, January 2015). Examples of potential post-construction erosion and sediment control practices are provided in Appendix 13-C (SWPPP) and include reduction in impervious cover and the use of vegetated filter strips, dry swales, and culverts.

(d) Chemical and Petroleum Bulk Storage

(1) Spill Prevention and Control Measures

To prevent unintended releases of petroleum and other hazardous chemicals, a Preliminary SPCC Plan has been prepared that outlines preventative measures and response procedures in the unlikely event of a release (Appendix 13-D). Specifically, the plan contains descriptions of on-site oil storage activities, procedures for handling oil, discharge or drainage controls, procedures in the event of a discharge discovery, a discharge response procedure, a list of spill response equipment to be maintained on-site,

methods of disposal of contaminated materials in the event of a discharge, and spill reporting information.[2]

Construction and operation of the Facility will not require the use, storage or disposal of large quantities of chemicals or hazardous substances other than petroleum or other oils. Chemicals potentially found on-site during construction and operation of the Facility will likely include antifreeze, paints/solvents, lubricants and other chemicals commonly associated with the maintenance of engines and equipment. These materials will be stored consistent with label instructions in small containers (typically less than 5 gallons). Any spills of these material will be reported internally, and a decision will be made whether the incident must be reported to federal, state or local authorities.

(2) Compliance with New York State Chemical and Petroleum Bulk Storage Regulations

The Facility has three pieces of oil-filled equipment—one approximately 6,213-gallon capacity main transformer and two approximately 2-gallon capacity substation service transformers—all of which will be located in the collection substation yard. Operational tank systems (i.e., transformers) are not subject to the provisions of 6 NYCRR Part 613.

It is not anticipated that large volumes of petroleum or hazardous substances will be stored in tanks subject to regulation under the State of New York's chemical and petroleum bulk storage programs. If the Applicant elects to store petroleum or chemicals in tanks in quantities that exceed applicable regulatory thresholds, it will submit the necessary registration application(s) to the NYSDEC and will comply with all applicable requirements set forth in the petroleum and chemical bulk storage regulations. See 6 NYCRR Part 613 (petroleum bulk storage) and 6 NYCRR Parts 596-599 (chemical bulk storage).

(3) Compliance with Local Chemical and Petroleum Bulk Storage Regulations

It is not anticipated that large volumes of petroleum or hazardous substances will be stored in tanks subject to applicable federal, state and local regulations. If the Applicant elects to store petroleum or chemicals in tanks in quantities that exceed local regulatory thresholds, it will submit the necessary registration application(s) to Seneca County and the Towns of Junius and Waterloo and will comply with all applicable requirements set forth in the petroleum and chemical bulk storage regulations. Any relevant local requirements regarding bulk storage regulations are discussed in Exhibit 24 (Local Laws and Ordinances).

[2] Note, in addition to oil, very limited quantities of other chemicals will be stored on site, as discussed in the SPCC Plan.

(e) Aquatic Species and Invasive Species

(1) Impact to Biological Aquatic Resources

Impacts to surface waters can also affect certain biological aquatic resources associated with those surface waters. These impacts are primarily related to sediment loading in surface waters, which increases turbidity, as well as alteration of streams through the installation of culverts necessary for Facility construction. The Applicant has prepared a SWPPP (Appendix 13-C) to prevent sedimentation impacts from occurring in surface waters within the Facility Site during construction and operation of the Facility. Direct impacts have also been minimized through careful siting of Facility components. As indicated in Section 13(b)(7), no New York State-protected streams occur within the Facility, and only minor impacts to non-state-protected streams are anticipated.

A Plant Species List and a Wildlife Species List are included in Appendix 11-B. The Plant Species List includes all plant species observed during on-site ecological field studies, including wetland delineations and habitat assessments. The Wildlife Species List identifies species that may occur within the ecological communities present in the Facility Site at some time during the year. It is also based on site-specific field survey results, such as the breeding bird survey, as well as assessments of habitat availability and existing publicly available data, as summarized in the Wildlife Site Characterization Report (Appendix 12-A). No aquatic plant species that are state-listed as endangered, threatened, or of special concern were identified on the Plant Species List. Two aquatic species identified on the Wildlife Species list are listed in New York State as threatened and described in the following sections.

BEGIN CONFIDENTIAL INFORMATION< [redacted]

[redacted]

>END CONFIDENTIAL INFORMATION

Most aquatic invasive species are introduced to lakes, and then travel to hydrologically connected streams and rivers. Aquatic invasive species are typically spread by ships, boats, barges, aquaculture, recreation, and connected waterways (NYSDEC, 2021). These activities are infrequent in small headwater

streams, such as those present at the Facility Site. The primary vectors for aquatic invasive species within the Facility Site would be aquatic invasive vegetation propagules on fishing equipment or invasive aquatic pests or parasites associated with bait fish used for recreation in perennial streams in the vicinity of the Project.

Based on the lack of observed aquatic invasive species on site (data forms included with Appendix 14-A [Wetland and Stream Delineation Report]), and because the common pathways for aquatic invasive species introduction are not applicable to the construction or operation of the Facility, the risk of spreading invasive species is low.

The Invasive Species Control Plan for the Facility, to be filed as a preconstruction compliance filing in accordance with Section 1100-10.2(e) of the Article VIII regulations, will require that all construction equipment and materials arrive at the site clean and are regularly cleaned as they move throughout the Project Site. Additionally, because of the Applicant's efforts to avoid and minimize impacts to surface waters in the Facility Site, it is not anticipated that significant exposure to any existing aquatic invasive species that may currently exist will occur. Consequently, no significant impacts to aquatic resources from the introduction or spread of invasive species are anticipated. Where permanent access roads cross streams, special crossing techniques will be used in accordance with regulatory requirements and NYSDEC guidance. These measures will collectively ensure compliance with applicable water quality standards (6 NYCRR Part 703). As a result, the construction and operation of the Facility is also not anticipated to have adverse impacts to native aquatic species.

(2) Measures to Avoid or Mitigate Impacts to Aquatic Species

As detailed in Section 13(e)(1), impacts on aquatic species within the Facility Site are not anticipated. There is no indication that aquatic invasive species are present in the Facility Site, and common pathways for aquatic invasive species introduction are likely not to occur during Facility construction and operation. In addition, avoidance of direct impacts and measures implemented to minimize indirect impacts to surface waters (e.g., SWPPP [Appendix 13-C]) will also serve to avoid or mitigate impacts to any commonly occurring aquatic species in the area. Additionally, the Applicant will prepare an Invasive Species Control and Management Plan in accordance with 16 NYCRR Section 1100-10.2(f)(4).

(f) Water Quality Certification

Construction and operation of the Facility will result in some temporary and permanent impacts to wetlands and streams that are anticipated to fall under United States Army Corps of Engineers (USACE) jurisdiction. Under Section 404 of the CWA, the USACE has regulatory authority over any activity that involves the discharge of fill into Waters of the United States (WOTUS). The Applicant anticipates obtaining a USACE Section 404 Nationwide Permit prior to initiating any construction activities that would result in jurisdictional impacts to WOTUS. On behalf of the Applicant, EDR submitted a copy of the Wetland and Water Resources Delineation Reports and shapefiles, and a request for a Preliminary Jurisdictional Determination (PJD) for all wetlands and watercourses within the Study Area to the USACE on May 5, 2023. The Applicant anticipates that a PJD will be issued concurrently with the 404 Nationwide Permits.

In addition, in accordance with Section 401 of the CWA and the Article VIII regulations, it is anticipated that the Applicant will be required to comply with the water quality standards set forth in 6 NYCRR Section 608.9 and obtain a Water Quality Certification from ORES.

(1) Request for Certification

Prior to initiating any construction activities that would result in federal jurisdictional impacts, the Applicant will request a Water Quality Certification. The request is not included with this Application. See Section 13(f)5 for a discussion of the Applicant's anticipated submission timeline.

(2) Copies of Pertinent Federal Permit Applications

As stated above, the Applicant has consulted with the USACE, but has not yet applied for a federal Section 404 permit. Copies of pertinent federal permit applications will be distributed to ORES and the NYSDEC following submission.

(3) Demonstration of Compliance with 6 NYCRR Section 608.9

The Applicant hereby states that construction and operation of the Facility will adhere to the requirements of 6 NYCRR Section 608.9.

(4) Contact Information for USACE District Engineer

USACE Buffalo District Engineer
1776 Niagara Street, Buffalo, NY 14207
Telephone: (716) 879-4330
Email: LRB.NewYork.RegActions@usace.army.mil

(5) Request for Certification Timetable

A Joint Application for Permit and a Request for Water Quality Certification is expected to be submitted to the USACE and ORES in Q4 of 2024 or Q1 of 2025. It is anticipated that USACE and ORES approval would be provided by Q4 of 2025.

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