Agricola Wind Project

Permit Application No. 23-00064

1100-2.14 Exhibit 13

Water Resources and Aquatic Ecology

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EXHIBIT 13 WATER RESOURCES AND AQUATIC ECOLOGY

(a) Groundwater

(1) Hydrologic Information

According to a review of the U.S. Department of Agriculture (USDA) Soil Survey Geographic Database (SSURGO) depth to groundwater at the Facility Site ranges from the ground surface to greater than 6.6 feet below the surface, with a high-water table most commonly occurring in low-lying areas in and adjacent to wetlands (Soil Survey Staff, 2019). The SSURGO data also indicate that bedrock may be more than 17 inches below the ground surface to greater than 6.6 feet below the surface.

Additionally, in support of Exhibit 10 the Applicant retained Westwood Surveying and Engineering Professional Services (Westwood), to prepare a Preliminary Geotechnical Investigation Report (see Appendix 10-B). The report documents the results of soil borings conducted throughout the Facility Site. Groundwater was encountered at all geotechnical boring locations, except for one boring site located at Wind Turbine #14 (B-01). At five of the seven boring locations, a static groundwater level was observed between depths of 7 and 28 feet below the ground surface. See Exhibit 10, Figure 10-3 and Figure 10-4 for additional information regarding depth to bedrock and groundwater, and the locations of the soil borings.

(2) Public and Private Groundwater Wells

To identify existing groundwater wells in the vicinity of the Facility Site, Freedom of Information Law (FOIL) request letters were sent to the New York State Department of Health (NYSDOH) on May 16, 2024 and the water well program database maintained by the New York State Department of Environmental Conservation (NYSDEC) was queried. The FOIL request letter asked for information pertaining to groundwater wells (including location, construction logs, depths, and descriptions of encountered bedrock) and other groundwater resources within 1 mile of the proposed Facility (see Appendix 13-A). These letters also requested information on any known surface water supply intakes (see Section (b)(4)).

A response from the NYSDOH via email on October 7, 2024 identified five community water sources located within 1 mile of the Facility Site (see Appendix 13-A).[1] One of these wells is located within 1,000 feet of the proposed Facility Site (see Appendix 13-A and Figure 13-1). The NYSDEC well database identified 68 wells within 1 mile of the Facility Site. Eighteen of these wells are located within 1,000 feet of the proposed Facility Site and five are located within the Facility Site (see Figure 13-1).

The Applicant sent private well surveys to all landowners with parcels located within 1,000 feet of the Facility Site on April 04, 2024. The water well survey was developed by the Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) and included a

[1] Four of the wells identified by the NYSDOH have the same coordinates and therefore are represented by one point in Figure 13-1.

brief summary of the Facility and the Article VIII process, contact information for questions, a description of where the well owner can get more information, and a questionnaire that included questions such as: whether the parcel had well(s); the depth, size, and yield of the well; the well's depth to groundwater; sampling and testing history of the well; and location of the well (see Appendix 13-B). Included with the questionnaire was a stamped and self-addressed return envelope to facilitate the return of the surveys.

The Applicant received 55 responses to the surveys, 37 of which provided spatial information on the location of private wells.[2] The depths of these private wells ranged from 4 to 260 feet below grade with an average depth of approximately 98 feet. Most of the wells were reported to be installed in bedrock and are primarily used for household purposes; however, primary and secondary agriculture uses were identified. Groundwater yields reported in this survey ranged from 1.5 gallons per minute (gpm) to 25 gpm, with average yields of approximately 8 gpm. The survey responses are included in Appendix 13-B. Appendix 13-B summarizes public and private water well locations, well design, and production information, to the extent such data were provided or are publicly available.

The locations of private and public water sources are depicted on Figure 13-1. There are no known active residential/domestic water supply wells within 100 feet of any proposed collection lines or access roads. There are two private wells located within 500 feet of collection line crossings that will be installed using trenchless technologies (Well IDs 49 [Parcel ID 185.00], and 36 [Parcel ID 197.00-1-50.1)[3] and one private well within 1,000 feet of a proposed wind turbine, which may require blasting.[4]

Sole source aquifers are designated by the United States Environmental Protection Agency (EPA) as aquifers that are used as the sole or main sources of drinking water for a community and are regulated under the provisions of the Federal Safe Drinking Water Act (SDWA) of 1974. The SDWA also requires states to adopt drinking water quality standards to implement and enforce the national standards. The Upstate New York Groundwater Management Program has adopted special program policies to enhance the protection of groundwater in locations where groundwater is both highly productive and highly vulnerable. As defined in the NYSDEC (NYSDEC, 1990), protection categories include the following:

- Public Water Supply Wellhead Areas – The goal of the Wellhead Protection Program is to protect the ground water sources and wellhead areas that supply public drinking water systems from contamination. Per New York Codes, Rules and Regulations (NYCRR), Title 10, Volume A, Part 5 – Drinking Water Supplies, land use activities are generally limited within a minimum separation distance of 200 feet from a well serving a public water supply.
- Primary Water Supply Aquifer Area – A designation applied by the NYSDEC and U.S. Geological Survey (USGS) to aquifers that are presently being utilized as sources of water supply by major

[2] Some responses to the private well survey included well data but did not include any location information. These responses are included in Appendix 13-B but are not included in Figure 13-1.
[3] Some of these crossings will be installed using conventional bores and some of these crossings will be installed using HDD. The exact installation method at each of these installations is not known at this time.
[4] As described in Exhibit 10, the specific locations where blasting will occur is currently unknown. However, blasting may be required at some turbine foundation sites.

municipal water supply systems. NYSDEC considers all primary aquifers within New York State to also qualify as sole source aquifers; however, there is no direct relationship between the federal and state designations of sole source and primary aquifers.

- Principal Aquifer Areas – A designation applied by the NYSDEC to aquifers that are known to be highly productive, or where geology suggests the potential for abundant water supply, but which are not currently used as water supply source by major municipal systems.
- Other areas as determined to be highly productive or highly vulnerable[5] to contamination by the NYSDEC.

A review of Primary Aquifers mapped by the NYSDEC Division of Water (DOW) indicates that no Primary Aquifers are located within the Facility Site (NYSDEC, 2011). The nearest sole source aquifer is located greater than 12 miles southeast of the Facility Site. There is one unconfined aquifer of high yield that intersects the southwest portion of the Facility Site. The NYSDEC considers unconfined aquifers with yields of 10 to 100 gallons per minute, or greater than 100 gallons per minute, as principal aquifers. Therefore, according to available data on aquifer yield, there is one potential principal aquifer within the southwest portion of the Facility Site (see Figure 13-2). The NYSDEC DOW is ultimately responsible for making the formal determination as to whether a location is within a principal aquifer area; however, because this proposed Facility does not involve the siting of landfills, oil and gas wells, or other potentially hazardous and contaminated materials, no consultation with the DOW is required (NYSDEC, 2022).

To avoid potential impacts to groundwater and principal aquifers (should these locations be determined to be principal aquifer areas by the NYSDEC DOW), the Applicant will implement BMPs outlined in the Facility's Stormwater Pollution Prevention Plan (SWPPP) (Appendix 13-C) and Preliminary Spill Prevention, Control and Countermeasure (SPCC) Plan (Appendix 13-D) and will implement protections for potential recharge areas including wetlands, waterbodies, and streams. Furthermore, as stated previously and presented in Appendix 13-A, there are no wells that service a public water supply within the Facility Site. Therefore, construction and operation of the Facility are not anticipated to result in significant adverse impacts to aquifers or wells.

(3) Groundwater Impacts

The Facility is not anticipated to result in any significant impacts to groundwater quality or quantity, or to the private drinking water supply wells, aquifer protection zones, or groundwater aquifers within the Facility Site, or within a 1-mile radius of the Facility Site (see Figure 13-1 and Figure 13-2). Most of the proposed turbines will be located at high points within the local landscape and away from significant groundwater resources (Figure 13-1 and Figure 13-2). Excavations for roadways, and underground

[5] The term "highly vulnerable" refers to aquifers which are highly susceptible to contamination from human activities at the land surface over the identified aquifer. Therefore, special protection policies are typically applied to the land area within the mapped boundaries of the aquifer (NYSDEC, 1990).

collection lines are expected to be relatively shallow and are not expected to have long-term impacts on groundwater resources.

Based on the distance of these wells from proposed wind turbines it is unlikely that Facility construction activities will have a long-term impact on shallow aquifer or residential water-well groundwater quality or quantity (see also Exhibit 10).

Based on the well data received and the planned setback distances required by Article VIII, it is unlikely that construction of the proposed Facility will have an impact on groundwater quality or quantity. Groundwater wells at the Facility Site average approximately 98 feet in depth based on data obtained from the private well survey (see Appendix 13-B). These depths are generally located within fractured bedrock or granular soil and are substantially deeper than the excavations proposed for Facility construction. As stated previously and shown in Figure 13-1, there are no known active water supply wells within 100 feet of proposed access roads or collection lines. Two private wells have been identified within 500 feet of collection lines that will be installed using trenchless technologies. Some of these collection line installations may be completed using HDD; however, the exact installation method for these crossings is not known at this time. One private well is located within 1,000 feet of a proposed wind turbine. The Applicant will adhere to the requirements of 16 NYCRR Section 1100-6.4(n)(1) to conduct pre- and post-construction testing of the potability of water wells on any non-participating properties within 100 feet of proposed collection lines, 200 feet of proposed turbine locations, 500 feet of HDD, and 1,000 feet of blasting locations. In accordance with 16 NYCRR Section 1100-6.4(n)(1), blasting will not be conducted within 500 feet of any known existing, active, water supply well or intake on a non-participating property.

The Facility will have no effect on groundwater recharge. Construction of the Facility will add small areas of impervious surface (see Exhibit 5(b)), which will be dispersed throughout the Facility Site. Anticipated impervious surfaces at the Facility include, wind turbine, meteorological (MET) tower, and aircraft detection lighting system (ADLS) pads, access roads, the operations and maintenance (O&M) facility, the collection substation, and point of interconnection (POI) switchyard, which encompass approximately 25 acres and represent less than <1% of the total area within the Facility Site.

Although the Applicant has designed the Facility to reduce the potential for impacts, construction of the proposed Facility could result in certain localized impacts to groundwater, and the use of that water by adjacent landowners. These impacts could include:

- Minor localized disruption of groundwater flows down-gradient of proposed turbine foundations
- Minor modification to surface runoff patterns
- Minor temporary degradation of groundwater quality from accidental spills and installation of concrete foundations
- Temporary impacts to groundwater recharge areas (e.g., wetlands)
- Temporary groundwater migration along collection line trenches.

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 are low because the Applicant has developed avoidance, minimization, and mitigation measures that are outlined in the Facility's Preliminary SPCC Plan (Appendix 13-D). See Exhibit 13(b)(5) and Exhibit 13(d) for additional discussion of the Preliminary SPCC Plan and other mitigation measures. See Appendix 06-B for a discussion of safety response procedures in the event of a hazardous spill.

Construction activities also have the potential to impact localized groundwater flow paths in areas where excavation occurs below the water table. In these instances, water is anticipated to flow around the disturbance and resume its original flow direction downgradient of the disturbance. Groundwater that infiltrates into excavations may require removal by pumping, which could have a minimal, short-term effect on the elevation of the water table. However, this water will be discharged to the ground surface through a velocity dissipating device and allowed to infiltrate back into the water table with negligible loss of volume due to evaporation. In addition, most excavations are not anticipated to occur below the water table. Therefore, any effect will be localized and temporary.

The greatest potential for impacts to groundwater from the Facility is the installation of turbine foundations. As noted in Exhibit 10(a), bedrock may be encountered at some of the turbine sites. Mechanical excavation (e.g., using a pneumatic hammer or large ripper) may be possible in most cases; however, in some cases, blasting will generate less noise overall and take less time. To minimize potential impacts to groundwater, all blasting will comply with applicable laws and regulations and will be conducted in accordance with the Blasting Plan, included as Appendix 10-A. See Exhibit 10(a)(5) through 10(a)(9) for additional information on blasting and associated mitigation measures. Impacts associated with conventional excavation methods will be managed by utilizing best management practices (BMPs) contained in the Facility's SWPPP (see Appendix 13-C).

Installation of the concrete foundations could cause a temporary, localized increase in the pH of groundwater during the curing process. This effect will not extend beyond the immediate area of the foundation and will not adversely affect groundwater quality. In the event a perched groundwater condition is encountered at a turbine site, temporary construction dewatering methods will be employed. Turbine foundations are typically designed to resist hydrostatic forces, when required, eliminating the need to install permanent drainage systems.

As previously noted, preliminary soil borings have been conducted to determine groundwater levels across the Facility Site (see Appendix 10-B). Except for boring location B-01, groundwater was observed at all boring locations during the preliminary geotechnical field investigation. However, groundwater levels 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. Depending on foundation elevation and bedrock conditions within the excavations, groundwater may need to be considered in the design and construction of foundations, see Exhibit 10(a)(4) for a discussion of groundwater management best practices. Should shallow/perched groundwater be encountered, any construction impacts will be addressed through

relatively common engineering measures and construction techniques, including dewatering. The determination of any long-term dewatering (if necessary) will be addressed during design phase geotechnical investigations to be conducted following issuance of the Siting Permit.

In addition to impacts to groundwater due to turbine foundation installation, minor impacts could result from the installation of support structures and 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, water could collect and migrate through the trench to areas of lower elevation where it could discharge to the surface. The Applicant will utilize trench breakers to control erosion prior to back-filling the trench as needed to prevent erosion and wash-out of soils within the trench.

Based on the geotechnical studies performed (see Exhibit 10, Appendix 10-B), Facility component siting, proposed construction techniques, and implementation of BMPs, construction and operation of the Facility is not anticipated to result in significant adverse impacts to the quality or quantity of groundwater resources.

(b) Surface Waters

(1) Surface Waters Map

Maps showing locations 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 (the Wetland Study Area), are depicted in Figure 14-1 and the Wetland and Stream Delineation Report (Appendix 14-A). Wetland and stream delineations conducted at the Facility Site by EDR identified all surface waters (ponds; ephemeral, intermittent, and perennial streams; and wetlands) within the Wetland Study Area.

Pursuant to 16 NYCRR Section 1100-1.3(e)(2), the Applicant provided ORES with a WDR, dated June 20, 2024. A Surface Waters Jurisdictional determination (JD) was issued by the Office of Renewable Energy Siting and Electric Transmission (ORES) on September 3, 2024. Following the receipt of the September 3, 2024 Surface Waters JD, the Applicant made small changes to the layout and design of the Facility. The layout and design changes required additional wetland and stream delineations, primarily extensions to the boundaries of previously delineated wetlands. To support these additional delineations and to update the WDR to be consistent with the Surface Water and Wetland JDs (JDs) and comments made by ORES, the Applicant revised the WDR to summarize the results of all delineation efforts to date and reflect jurisdictional status. The Applicant provided ORES with revised copies of the WDR on September 20, 2024 and October 25, 2024 (Appendix 14-A). On November 1, 2024 a revised Surface Waters JD was received from ORES (Appendix 14-B).

Surface waters located outside the Facility Site but within 100 feet of the limits of disturbance (LOD) were mapped by EDR using a combination of publicly available data from NYSDEC, the Environmental Systems Research Institute (ESRI), the USGS, and the National Wetlands Inventory (NWI), as well as recent orthoimagery collected by the NYS Digital Orthoimagery Program in 2023. Surface waters outside the Facility Site but within 100-feet of the limits of disturbance are shown in Figure 14-1.

(2) Stream Delineation Reports

On-site wetland and stream delineations were conducted by EDR in 2023 and 2024. Results of the on-site field delineations, including data on all delineated surface waters are documented in the Wetland and Stream Delineation Report (Appendix 14-A).

Streams, which are the surface waters addressed in this Exhibit, were identified according to the Cowardin Classification System (1979). 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*" (CFR, 1986). Stream 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. 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.

(3) Description of Surface Waters

The Facility Site is located in the Seneca River watershed (USGS Hydrologic Unit 04140201). During on-site delineations conducted by EDR, 49 perennial, intermittent, and ephemeral streams were identified, totaling 18,387 linear feet within the Facility Site. Many of the streams are located adjacent to and/or within active agricultural fields, others flow through forested areas or wooded ravines. No aquatic invasive plant species were detected in any surface water within the Facility Site, although some terrestrial invasive species associated with wetland areas were identified (e.g., common reed [*Phragmites australis*], etc.). Streams delineated within the Facility Site are listed in Table 13-1, shown in Figure 14-1, and further described in the Wetland and Stream Delineation Report (Appendix 14-A).

Under Article 15 of the Environmental Conservation Law (Protection of Waters), any stream or particular 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). 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 and non-contact activities. Waters with a classification of D represent the lowest classification standard and are not protected under Article 15. Streams designated (T) indicate that they support trout and include those more specifically designated (TS) which support trout spawning.

Table 13-1 lists all delineated streams within the Wetland Study Area. As identified in the ORES Final Surface Waters Jurisdictional Determination letter dated November 1, 2024 (see Appendix 13-E), ORES has not asserted State jurisdiction over any of these delineated surface waters and there are no State-protected surface waters within the Wetland Study Area.

Table 13-1. Delineated Surface Waters

Stream ID[1]	Stream Length (ln ft)	Stream Type[2]	Stream Name[3]	NYSDEC Stream Class[4]	Waterbody Identification Number (WIN)[5]	Stream Order[6]	Baseflow
05-ST001	241.62	R4	--	--	--	1	Yes
05-ST002	36.52	R4	--	--	--	1	Yes
05-ST003	121.88	R4	UNT to BIG Salmon Creek	C	Ont. 66-12-P 296-57-31	1	Yes
05-ST004	92.55	R4	--	--	--	1	Yes
05-ST005	76.51	R4	--	--	--	1	Yes
10-ST001	187.56	R3	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-44	2	Yes
10-ST002	259.84	R4	--	--	--	1	Yes
10-ST003	1168.78	R3	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-44	1	Yes
12-ST001	120.32	R4	--	--	--	1	Yes
12-ST002	743.94	R4	--	--	--	2	Yes
12-ST003	116.62	R4	--	--	--	1	Yes
12-ST004	334.78	R4	--	--	--	1	Yes
12-ST005	357.52	R4	UNT to Big Salmon Creek	--	Ont. 66-12-P 296-57-42	1	Yes
12-ST006	665.01	R3	UNT to Big Salmon Creek	--	Ont. 66-12-P 296-57-31	2	Yes
12-ST007	196.48	R4	--	--	--	1	Yes
12-ST008	359.46	R4	--	--	--	1	Yes
23-ST002	68.08	R4	--	--	--	1	Yes
23-ST004	174.29	R4	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-37d-1	2	Yes
23-ST005	190.33	R4	--	--	--	2	Yes
23-ST006	569.37	R4	--	--	--	1	Yes
23-ST007	497.42	R4	--	--	--	1	Yes
23-ST008	280.49	R4	--	--	--	1	Yes
23-ST009	650.23	R3	UNT to Big Salmon Creek	C	ONT 66-12-P 296-57-37d	2	Yes
23-ST010	1.55	R3	--	C	--	1	Yes
23-ST011	5.09	R3	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-37d	1	Yes
23-ST012	43.86	R4	--	--	--	1	Yes
23-ST013	89.47	R4	--	--	--	1	Yes
23-ST015	548.41	R3	--	--	--	1	Yes
23-ST016	895.78	R3	--	--	--	1	Yes
23-ST017	846.63	R3	--	--	--	2	Yes
23-ST018	2152.46	R3	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-36	1	Yes
23-ST019	17.24	R4	--	--	--	1	Yes
23-ST020	358.44	R4	--	--	--	1	Yes
23-ST024	785.11	R4	--	--	--	1	Yes
23-ST025	186.60	R4	--	--	--	1	Yes
23-ST026	491.99	R4	--	--	--	1	Yes
23-ST028	797.05	R3	UNT to Big Salmon Creek	C	Ont. 66-12-P 296-57-36	1	Yes
23-ST029	12.48	R4	--	--	--	1	Yes
26-ST001	1510.76	R4	--	--	--	1	Yes
26-ST002	361.41	R4	UNT to Owasco Lake	C	Ont. 66-12-43-P 212-30	1	Yes
26-ST003	564.26	R4	--	--	--	1	Yes
33-ST001	172.08	R6	--	--	--	1	No
66-ST001	39.40	R4	--	--	--	1	Yes
66-ST002	87.70	R4	--	--	--	1	Yes
66-ST003	48.76	R4	--	--	--	1	Yes
66-ST004	399.76	R4	--	--	--	1	Yes

Stream ID[1]	Stream Length (ln ft)	Stream Type[2]	Stream Name[3]	NYSDEC Stream Class[4]	Waterbody Identification Number (WIN)[5]	Stream Order[6]	Baseflow
66-ST005	88.84	R4	--	--	--	1	Yes
99-ST001	324.77	R4	--	--	--	1	Yes
99-ST002	46.53	R4	--	--	--	1	Yes

[1] Field ID assigned by EDR.
[2] Stream type is based upon the Cowardin et al. (1979) classification system: perennial stream (R3), intermittent stream (R4), and ephemeral stream (R6).
[3] UNT = Unnamed Tributary.
[4] Based on publicly available NYSDEC stream mapping.
[5] See 6NYCRR (Parts 800-941).
[6] Using Strahler method in which stream order increases when streams of the same order confluence.

As described above, streams delineated within the Wetland Study Area are limited to Class C and unmapped streams. The NYSDEC establishes water quality standards for specific substances, which are found in 6 NYCRR Part 703. In the absence of established water quality standards, numeric guidance values can be found in the guidance document for Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998)[6]. Table 13-2 provides the ambient water quality standards and guidance values applicable to streams within the Facility Site.

Table 13-2. New York State Ambient Standards and Guidance Values

Parameter	NYSDEC Classification	Standard
Taste-, color-, and odor-producing, toxic, and other deleterious substances	C	None in amounts that will adversely affect the taste, color, or odor thereof, or impair the waters for their best usages.
Turbidity	C, D	No increase that will cause a substantial visible contrast to natural conditions.
Suspended, colloidal, and settleable solids	C, D	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, D	No residue attributable to sewage, industrial wastes, or other wastes, nor visible oil film nor globules of grease.
Phosphorus and nitrogen	C, D	None in amounts that will result in growths of algae, weeds, and slimes that will impair the waters for their best usages.
Thermal discharges	C, D	Standard for this refers to 6 NYCRR Part 704.1 Water quality standards for thermal discharges. (a) 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. (b) The criteria contained in this Part shall apply to all thermal discharges and shall be complied with, except as provided in this Part.
Flow	C, D	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.

[6] Available at https://www.dec.ny.gov/docs/water_pdf/togs111.pdf

Parameter	NYSDEC Classification	Standard
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.
	D	Shall not be less than 3.0 mg/L at any time.
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 * (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.

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

As stated previously, no aquatic invasive plant species identified in NYSDEC Part 575 List of *Prohibited and Regulated Invasive Species* (NYSDEC, 2014), were identified during on-site wetland and stream delineations. The most common terrestrial invasive species observed during wetland and stream delineations included Morrow's honeysuckle (*Lonicera morrowii*), multiflora rose (*Rosa multiflora*), and common 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.

(4) Drinking Water Supply Intakes

As previously noted, the Applicant sought information from the NYSDOH regarding public water supplies (including public water supply intakes). In their October 07, 2024 response, the NYSDOH Bureau of Water Supply Protection provided the locations of five wells associated with community and non-community water systems; however, the NYSDOH did not identify any surface water supply intakes. According to the NYSDEC Info Locator, the nearest surface water supply intake is located approximately 9 miles north of the Facility in the City of Auburn. See Exhibit 13(a)(2) for a description of public and private groundwater wells. See Exhibit 13(a)(3) for a description of potential impacts to known public and private groundwater wells.

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

According to the Surface Waters Jurisdictional Determination issued by ORES on November 1, 2024, (Appendix 13-E), there are no NYS protected surface waters within the Facility's Wetland Study Area.

Therefore, measures to avoid or minimize impacts to New York State-protected surface waters will not be necessary.

(6) Best Management Practices to Minimize Impacts to NYS Protected Waters

As stated above, there are no New York State-protected surface waters within the Facility's Wetland Study Area. Therefore, measures to avoid or mitigate impacts to New York State-protected surface waters will not be necessary.

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

As stated above, there are no New York State-protected surface waters within the Facility's Wetland Study Area. Therefore, the development of a Stream Restoration and Mitigation Plan will not be necessary and the requirements of 16 NYCRR 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 Pollution Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, issued and effective on 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 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, Westwood developed a SWPPP (see 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 in the previous subsection, the final SWPPP and associated erosion and sedimentation control plan will be submitted prior to construction and 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 during construction and 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 was prepared in accordance with New York State Standards and Specifications for Erosion and Sediment Control (NYSDEC, 2016), and the New York State Stormwater Management Design Manual (NYSDEC, 2015). Examples of potential post-construction erosion and sediment control practices are provided in Appendix 05-A and Appendix 13-C and include, but are not limited to, vegetation buffers, mulching, erosion control blankets, and application of temporary and permanent seed mixes.

(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 (see Appendix 13-D). The Applicant will visually examine oil storage areas (including drums, totes, slip tanks, turbines, and transformers) regularly and conduct formal visual inspections on a monthly basis to prevent unintended releases of petroleum and other hazardous chemicals. Formal visual inspections will be completed in accordance with written procedures detailed in the preliminary SPCC. Personnel performing inspections will follow the Monthly Facility Inspection Checklist, provided in Appendix G of the preliminary SPCC (this checklist is subject to change). The monthly and annual inspection records will be maintained at the Facility with the preliminary SPCC Plan, in written or electronic form, for at least three years.

Oil products to be used during construction will primarily be stored at the laydown yards. In addition, oil products will be stored and used at the concrete batch plant, substation, O&M facility, and in each wind turbine's gearbox and hydraulic unit, both of which will be contained within the turbine itself. The SPCC outlines steps and information on spill reporting procedures, prevention, and response. The SPCC also includes a description of secondary containment methods to prevent oil from reaching surface waters. Diesel exhaust fluid, herbicides, and other non-petroleum chemicals are not included in this SPCC Plan. However, potential spills from these containers will be subject to the NYSDEC spill reporting requirements.

Containment and diversionary structures will be used to limit the spread of a spill prior to cleanup. Containment pits will surround tanks, totes, drums, and transformers at the laydown yard, batch plant, and collection substation. These areas will be drained by manually activated pumps. Retained rainwater will be inspected prior to draining to ensure that only oil-free water is discharged. Methods of secondary containment at the Facility include a combination of prefabricated structure and land-based spill response. All secondary containment structures shall be sized to hold a minimum of 110% of the volume of the single largest tank within the containment area. During construction, clean-up kits that contain absorbent materials, booms, and other portable barriers will be located at the laydown yard to respond to spills on-site. Portable spill kits will be located in lube trucks and mechanic trucks.

An SPCC Plan for the operating Facility will be prepared if the Applicant elects to store petroleum in quantities that exceed federal requirements, to meet regulations set forth in CFR, Title 40, Part 112, Oil

Pollution Prevention. A non-transportation-related facility is subject to SPCC regulations if the total above-ground oil storage capacity exceeds 1,320 gallons in containers 55 gallons or larger. A complete copy of the construction SPCC Plan will be maintained on-site and posted in the construction trailer at the laydown yard during construction activities. During operation of the Facility, a copy of the operational SPCC Plan will be kept in an accessible area (e.g., the O&M Facility or within the substation yard). In accordance with 40 CFR 112.5(a), the SPCC Plans will be reviewed and potentially amended under the following circumstances:

- Every five years
- If there is a change in Facility design, construction, operation, or maintenance that materially affects the Facility's potential for discharge of oil into the environment
- In the event of a significant spill.

Review and evaluation of the Plans will be documented in a Plan Review Log. The Plan Review Log will state whether the Plans will be amended based on the review. Any technical revisions to the Plan will be certified by a professional engineer.

The SPCC Emergency Coordinator will be responsible for oil discharge prevention, control, and response preparedness activities for the operating Facility. Oil handling personnel will be trained to operate and maintain oil pollution prevention equipment and follow discharge protocol, applicable pollution control laws, rules and regulations, and the content of the SPCC Plan. Any new Facility personnel tasked with oil handling responsibilities will be provided with the same training prior to involvement in any oil operation. The SPCC Emergency Coordinator will hold annual discharge prevention briefings for all Facility personnel involved in oil operations. The briefings will focus on the SPCC Plan to ensure adequate understanding, and will address any discharge events or failures, malfunctioning components, and any recently developed precautionary measures. Records of discharge prevention training and briefings will be kept for a minimum of three years from the training/briefing date and will be documented in the Discharge Prevention Briefing and Training Log provided in Appendix 13-D.

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

The Facility will have oil containers located at the collection substation, batch plant, O&M facility, and laydown yards. The design of the containers will include adequate secondary containment. 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 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

There are no local (county or town) regulations regarding chemical and/or petroleum bulk storage. The Applicant will comply with all state regulations as described above.

(e) Aquatic Species and Invasive Species

(1) Impact to Biological Aquatic Resources

Impacts to surface waters can 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 channels through the installation of culverts necessary for Facility construction. The Applicant has prepared a SWPPP (Appendix 13-C) to avoid and minimize sedimentation impacts to surface waters within and adjacent to the Facility Site during construction and operation. Direct impacts have also been minimized. As indicated in, Exhibit 11, Exhibit 14, and Figures 13-3 and 14-2, only a small fraction of the available aquatic habitat (wetlands and streams) that exists within the Facility Site will be directly impacted by Facility construction or operation. Any culverts required will be installed in accordance with the applicable regulatory requirements to avoid impacting flow characteristics and aquatic organisms. See Exhibit 14(e) for a discussion of impacts to wetlands within the Facility Site.

A Wildlife Species List is included in Appendix 11-A. 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 based on site-specific field survey results, as well as assessments of habitat availability and existing publicly available data, summarized in the Wildlife Site Characterization Report (Appendix 12-A).

The Wildlife Site Characterization Report did not identify any aquatic species listed as threatened or endangered in New York State as potentially occurring in the vicinity of the Facility Site. Therefore, no impacts to threatened or endangered aquatic species are anticipated to result from Facility construction or operation.

Most aquatic invasive species are introduced to lakes, and then travel to streams and rivers. Aquatic invasive species are typically spread by ships, boats, barges, aquaculture, recreation, and connected waterways (NYSDEC, 2021). 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 (see the data forms included with Appendix 14-A), and because the most common pathways for aquatic invasive species introduction are not applicable to the construction or operation of the Facility, the risk of spreading invasive aquatic species is low. The Invasive Species Control and Management Plan for the Facility, to be filed as a pre-construction compliance filing in accordance with 16 NYCRR 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. As mentioned above, where permanent access roads cross streams, special crossing techniques will be used in accordance with regulatory requirements and NYSDEC guidance. These measures will collectively minimize stream disturbance and the potential for invasive species spread.

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

As detailed in Exhibit 13(e)(1), significant impacts to aquatic species within the Facility Site are not anticipated. There is no indication that listed threatened or endangered aquatic species or aquatic invasive species are present within the Facility Site specifically. Common pathways for aquatic invasive species introduction are not likely to occur during Facility construction and operation, and the Applicant will prepare an Invasive Species Control and Management Plan in accordance with 16 NYCRR Section 1100-10.2(f)(4). 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.

(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 Permit prior to initiating any construction activities that would result in jurisdictional impacts to WOTUS.

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

(1) Request for Certification

The first step in requesting a Water Quality Certification (WQC) compliance is to request a pre-filing meeting with ORES and NYSDEC. No less than 30 days later, the Applicant may submit the Section 401 WQC application and a copy of the Section 404 Joint Application for Permit to ORES, NYSDEC Region 7, and the USACE Buffalo District Office. At this time, the Applicant has not yet applied for a federal permit from the USACE.

(2) Copies of Pertinent Federal Permit Applications

As stated above, the Applicant has not yet applied for a federal permit from the USACE. Copies of pertinent federal permit applications will be distributed to ORES and NYSDEC following their 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 §608.9.

(4) Contact Information for USACE District Engineer

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

(5) Request for Certification Timetable

The Applicant intends to initiate consultation with the USACE in the fourth quarter of 2025. A Joint Application for Permit/Request for Water Quality Certification is expected to be submitted to the USACE and ORES in the fourth quarter of 2025. It is anticipated that ORES approval would be provided in the second quarter of 2026, and USACE approval would follow in the fourth quarter of 2026.

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