# **F**S



# Application for Low Impact Hydropower Institute Certification

Hailesboro No. 3 Hydroelectric Project (FERC No. 5633) Hailesboro No. 4 Hydroelectric Project (FERC No. 6058) Hailesboro No. 6 Hydroelectric Project (FERC No. 3181)

Hydro Development Group Acquisition, LLC

November 7, 2022



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Attachment B – 2022 USFWS Information for Planning and Consultations (IPaC)

Attachment C – Reference Documents

# ACRONYMS

<b>C</b> cfs CRP	cubic feet per second Central Rivers Power, LLC
<b>F</b> FERC ft	Federal Energy Regulatory Commission Foot/Feet
<b>H</b> HDGA Hp	Hydro Development Group Acquisition, LLC horsepower
<b>I</b> IPaC	Information for Planning and Consultation
<b>K</b> kV kW	kilovolt kilowatt
<b>L</b> LIHI	Low Impact Hydroelectric Institute
<b>M</b> MW Mwh	megawatt megawatt hour
<b>N</b> NGVD NYSDEC	National Geodetic Vertical Datum New York State Department of Environmental Conservation
NYERM	New York Environmental Resources Mapper
<b>P</b> Projects	Hailesboro 3, 4, and 6 Hydroelectric Projects
<b>R</b> ROR RM	ROR River Mile
<b>S</b> SHPO sq mi	State Historic Preservation Office Square Mile

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<b>U</b> USFWS USGS	United States Fish and Wildlife Service United States Geological Survey
<b>W</b> WQC	Water Quality Certificate
<b>Z</b> ZOE	Zone of Effect

## **1.0 FACILITY DESCRIPTION**

#### 1.1 **Project Description**

The Hailesboro No. 6 Hydroelectric Project (FERC No. 3181), Hailesboro No. 4 Hydroelectric Project (FERC No. 6058), and Hailesboro No. 3 Hydroelectric Project (FERC No. 5633), collectively referred to as the Hailesboro Projects, or Projects, in this application, are located on the Oswegatchie River in St. Lawrence County, New York. The Projects are owned and operated by Hydro Development Group Acquisition, LLC (HDGA), a subsidiary of Central Rivers Power, LLC (CRP). The 132-mile long Oswegatchie River is located in the St. Lawrence River Watershed. A figure showing the Projects and primary features is provided as Figure 1-1 and an overview of each of the three Projects is provided below.

#### 1.1.1 Hailesboro No. 6 Hydroelectric Project

The Hailesboro No. 6 Project is the most upstream of the three Projects and is located at river mile (RM) 68.2 on the Oswegatchie River. The Project operates under an exemption issued by the Federal Energy Regulatory Commission (FERC or Commission) on September 17, 1981.

The Project consists of (1) a 10-foot high and 150-foot long reinforced concrete gravity overflow-type dam with a crest elevation of 487 ft National Geodetic Vertical Datum (NGVD); (2) a reservoir with a surface area of 4 acres and negligible storage capacity at normal surface elevation of 487 feet NGVD; (3) a 40-foot wide and 70-foot long intake structure with gates and trashracks along the south (left) bank; (4) a powerhouse containing two turbines rated at 800 horsepower and 500 horsepower, connected to two generators rated at 550 kilowatts (kW) and 350 kW, respectively, at a head of 19 feet and at a flow of 700 cubic feet per second (cfs); (5) a short tailrace; (6) electrical switchgear; (7) a 75-foot-long 2.3 kilovolt (kV) transmission line; and (8) appurtenant facilities.

The Project has an installed capacity of 900 kW and operates in a run-of-river (ROR) mode.



#### Figure 1-1 Project Location

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Photo 1-1 Photograph of Hailesboro No. 6 Project (aerial) showing the Impoundment, Log Boom, Boat Barrier, Dam, Bypassed Reach, Intake Structure, Powerhouse, and Tailrace



Photo 1-2 Photograph of Hailesboro No. 6 Dam



Photo 1-3 Photograph of Hailesboro No. 6 Project (aerial) showing the Boat Barrier, Log Boom, Dam, Bypassed Reach, Intake Structure, Powerhouse, and Tailrace



Photo 1-4 Photograph of Hailesboro No. 6 Project (aerial) looking downstream to Hailesboro 4 Project

#### 1.1.2 Hailesboro No. 4 Hydroelectric Project

The Hailesboro No. 4 Project is located at RM 67.7, approximately 0.5 miles downstream from Hailesboro No. 6 Project, on the Oswegatchie River. The Project operates under a license issued by FERC on October 30, 2002, which was amended on September 19, 2012.

The Project consists of (1) a concrete gravity-type dam comprised of: (i) the 105-footlong, 14-foot-high dam #1 surmounted by a 2-foot-high pneumatic crest gate; and (ii) the 58-foot-long, 5-foot-high dam #2 surmounted by 2-foot-high wooden flashboards; (2) a reservoir with a surface area of 2 acres and a gross storage volume of 20 acre-feet at normal water surface elevation 461 ft NGVD; (3) a gated intake structure with steel trashracks which have 1.75-inch clear spacing; (4) a 170-foot-long concrete-lined forebay canal with a sluice gate; (5) a reinforced concrete and concrete masonry powerhouse containing two horizontally mounted, double runner, Francis-type turbine units; one 900kW generating unit and one 1,000-kW generating unit for a total installed capacity of 1,900 kW; (6) a 2.4/23-kV substation, and a 50-foot-long, 23-kV transmission line; (7) appurtenant facilities; and (8) a 73-foot-long by 3-foot-high concrete gravity diversion dam (Island Branch Weir), topped with 1-foot-high wooden flashboards, located at the entrance of the Island Branch of the Oswegatchie River, notched to provide a 30 cfs minimum flow into the bypassed reach.

The Project operates in an automatic ROR mode using pond level control. A minimum flow of 30 cfs is provided by a notch in the Island Branch Weir into Island Branch. Minimum flows below Dam #1 and Dam #2 are 20 cfs and 8 cfs, respectively, with seasonal adjustments per the Water Quality Certificate (WQC) and further described in Section 3.1 of this application. The tailrace discharges directly into the headpond of the Hailesboro No. 3 Project.



Photo 1-5 Photograph of Hailesboro No. 4 Project (aerial looking downstream) showing Dam #1 (on left), Dam #2 (on right), Bypassed Reach, Forebay Canal, Powerhouse, and Downstream Area (on left of photo)



Photo 1-6 Photograph of Hailesboro No. 4 Project (aerial) showing Dam #1 with Pneumatic Crest Gate, Intake, Forebay Canal, Sluice Gate, Trashracks, Powerhouse, and Substation



Photo 1-7 Photograph of Hailesboro No. 4 Project (aerial) showing Dam #1 with Pneumatic Crest Gate, Intake, Forebay Canal, Sluiceway



Photo 1-8 Photograph of Hailesboro No. 4- Dam #2 with Wooden Flashboards



Photo 1-9 Photograph of Hailesboro No. 4 Project (aerial) showing Dam #1 with Pneumatic Crest Gate, Intake, Forebay Canal, Trashracks, Powerhouse, Tailrace, and Substation



Photo 1-10 Photograph of Hailesboro No. 4 Intake Gates



Photo 1-11 Photograph of Hailesboro No. 4 Project (aerial) showing the Powerhouse, and Tailrace



Photo 1-12 Photograph of Island Branch Weir

#### 1.1.3 Hailesboro No. 3 Hydroelectric Project

The Hailesboro No. 3 Project is located at RM 67.5, approximately 0.25 miles downstream from Hailesboro No. 4 Project, on the Oswegatchie River. The Project operates under an exemption issued by FERC on July 14, 1982, as amended via FERC Order issued June 11, 1998.

The Project consists of (1) a 16-foot-high, 68-foot-long reinforced concrete dam having a 24-foot-long spillway section with crest elevation 427.2 feet NGVD and having an intake section at the left (south) abutment and a gated sluiceway section at the right abutment; (2) a reservoir with a surface area of 6.5 acres and negligible storage capacity at normal surface elevation of 427.2 feet NGVD; (3) a timber gate intake structure, a 90-foot-long, 9-foot-diameter penstock, a 95-foot-long, 8.5-foot-diameter penstock, and a concrete intake box containing two turbine units; (4) a powerhouse containing two 500 kW generating units; (5) a tailrace; (5) a substation; (6) appurtenant facilities; and (7) a 0.25-mile long 2.3-kV transmission line.

The Project has an installed capacity of 1,000 kW and operates in a ROR mode while providing a minimum flow of 3 cfs into the bypassed reach.



Photo 1-13 Photograph of Hailesboro No. 3 Project (aerial looking upstream) showing Impoundment, Headgate, Powerhouse and Intake Concrete Box, and Transmission Line



Photo 1-14 Photograph of Hailesboro No. 3 Project (aerial looking downstream) showing Dam, Intake, Headgate, Log Boom, and Boat Barrier as well as the Safety Fencing around the Intake and the Canoe Launch to the Impoundment (right of intake)



Photo 1-15 Photograph of Hailesboro No. 3 Project showing Intake, Headgate, Trashrack, and Sluiceway



Photo 1-16 Photograph of Hailesboro No. 3 (looking downstream) Bypassed Reach



Photo 1-17 Photograph of Hailesboro No. 3 Project (aerial) showing Headgate, Bypassed Reach, Concrete Intake Box, Powerhouse, and Tailrace



Photo 1-18 Photograph of Hailesboro No. 3 Project (looking upstream) showing Headgate, Bypassed Reach, Concrete Intake Box, Powerhouse, Tailrace, and Transmission Line



Photo 1-19 Photograph of Hailesboro No. 3 Concrete Intake Box with Turbines

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Photo 1-20 Photograph of Hailesboro No. 3 Generators

#### **1.2** Facility Information Table for Multiple Facilities – Hailesboro Projects

#### Table 1-1Facility Information

ltom	Information Requested	Response		
nem		Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6
Name of the Facility	Facility name (use FERC project name or other legal name)	Hailesboro No. 3 Hydroelectric Project (FERC No. 5633)	Hailesboro No. 4 Hydroelectric Project (FERC No. 6058)	Hailesboro No. 6 Hydroelectric Project (FERC No. 3181)
Reason for applying for LIHI Certification	<ol> <li>To participate in state RPS program- (specify the state and the total MW/MWh associated with that participation (value and % of facility total MW/MWh)</li> <li>To participate in voluntary REC market (e.g., Green-e)</li> <li>To satisfy a direct energy buyer's purchasing requirement</li> <li>To satisfy the facility's own corporate sustainability goals</li> <li>For the facility's corporate marketing purposes</li> <li>Other (describe)</li> <li>If applicable, amount of annual generation (MWh and % of total generation) for which RECs are currently received or are expected to be received upon LIHI Certification</li> </ol>	<ol> <li>To participate in state RPS program- (specify the state and the total MW/MWh associated with that participation (value and % of facility total MW/MWh).</li> <li>To participate in voluntary REC market (e.g., Green-e).</li> <li>To satisfy a direct energy buyer's purchasing requirement.</li> <li>To satisfy the facility's own corporate sustainability goals.</li> <li>For the facility's corporate marketing purposes.</li> <li>CRP anticipates that RECs would be received for 100% of the annual generation.</li> </ol>	<ol> <li>To participate in state RPS program- (specify the state and the total MW/MWh associated with that participation (value and % of facility total MW/MWh).</li> <li>To participate in voluntary REC market (e.g., Green-e).</li> <li>To satisfy a direct energy buyer's purchasing requirement.</li> <li>To satisfy the facility's own corporate sustainability goals.</li> <li>For the facility's corporate marketing purposes.</li> <li>CRP anticipates that RECs would be received for 100% of the annual generation.</li> </ol>	<ol> <li>To participate in state RPS program- (specify the state and the total MW/MWh associated with that participation (value and % of facility total MW/MWh).</li> <li>To participate in voluntary REC market (e.g., Green-e).</li> <li>To satisfy a direct energy buyer's purchasing requirement.</li> <li>To satisfy the facility's own corporate sustainability goals.</li> <li>For the facility's corporate marketing purposes.</li> <li>CRP anticipates that RECs would be received for 100% of the annual generation.</li> </ol>
	River name (USGS proper name)	Oswegatchie River	Oswegatchie River	Oswegatchie River
Location	Watershed name - Select region, click on the area of interest until the 8-digit HUC number appears. Then identify watershed name and HUC-8 number from the map at: https://water.usgs.gov/wsc/map_index.html	HUC – 04150302 - Oswegatchie	HUC – 04150302 - Oswegatchie	HUC – 04150302 - Oswegatchie
	Nearest town(s), county(ies), and state(s) to dam	Town of Fowler, St. Lawrence County, New York	Town of Fowler, St. Lawrence County, New York	Town of Fowler, St. Lawrence County, New York
	River mile of dam above mouth	67	67	68
	Geographic latitude and longitude of dam	44.31377, -75.44905	Dam 1 - 44.31123, -75.44421 Dam 2 – 44.31100, -75.44379 Island Branch Weir – 44.30939, -75.42936	44.30780, -75.43702

140.00	Information Requested	Response			
item		Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6	
	Application contact names (Complete the Contact Form in Section B-4 also)	See Section 5.0	See Section 5.0	See Section 5.0	
	Facility owner company and authorized owner representative name.	Hydro Development Group Acquisition, LLC	Hydro Development Group Acquisition, LLC	Hydro Development Group Acquisition, LLC	
Facility Owner	For recertifications: If ownership has changed since last certification, provide the effective date of the change.	N/A	N/A	N/A	
	FERC licensee company name (if different from owner)	N/A	N/A	N/A	
	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	P-5633 Exemption issued July 14, 1982 Amended June 11, 1998	P-6058 Issued October 30, 2002 Expiration December 31, 2032	P-3181 Exemption issued September 17, 1981	
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	Exemption	Minor	Exemption	
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments. Include links or	New York State Department of Environmental Conservation	December 21, 2001 New York State Department of Environmental Conservation	New York State Department of Environmental Conservation	
	copies.	See copy of 1994 Letter from NYSDEC	Copy of the WQC is in Attachment C	See copy of 1994 Letter from NYSDEC	
Regulatory Status	Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories	Order Granting Exemption Accession No. 20021213-0175	Order Issuing License Accession No. 20021030-3065	Order Granting Exemption Accession No. 20021213-0180	
		Order Amending Exemption Accession No. 19980612-0212	Order Amending License Accession No. 20030416-3048	Notice of Transfer of Exemption Accession No. 20150518-3033	
		Recreation Plans and Plan Updates Accession No. 20040608-0026 Accession No. 20060926-3008	Recreation Plans and Plan Updates Accession No. 20040608-0026 Accession No. 20060926-3008		
		Notice of Transfer of Exemption Accession No. 20150519-3007	Order Amending License Accession No. 20120919-3010		
	Date of initial operation (past or future for pre- operational applications)	1910	1936	circa 1930	
Powerhouse	Total installed capacity (MW)	1,000 kW	1,900 kW	900 kW	
	For recertifications: Indicate if installed capacity has changed since last certification	N/A	N/A	N/A	

14.0	Information Requested	Response			
Item		Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6	
	Average annual generation (MWh) and period of record used	Average annual generation for the prior 10 years is 3,993 MWh.	Average annual generation for the prior 10 years is 10,647 MWh.	Average annual generation for the prior 10 years is 4,728 MWh.	
	For recertifications: Indicate if average annual generation has changed since last certification	N/A	N/A	N/A	
	Mode of operation (ROR, peaking, pulsing, seasonal storage, diversion, etc.)	ROR	ROR	ROR	
	For recertifications: Indicate if mode of operation has changed since last certification	N/A	N/A	N/A	
	Number, type, and size of turbine/generators, including maximum and minimum hydraulic capacity and maximum and minimum output of each turbine and generator unit	<ul> <li>Unit 1</li> <li>Horizontal S. Morgan Smith Turbine</li> <li>500 kW Generator</li> <li>Rated hydraulic capacity: 360 cfs</li> <li>Unit 2</li> <li>Horizontal S. Morgan Smith Turbine</li> <li>500 kW Generator</li> <li>Rated hydraulic capacity: 360 cfs</li> </ul> Total <ul> <li>1,000 kW generating capacity</li> <li>720 cfs hydraulic capacity</li> </ul>	<ul> <li>Unit 1</li> <li>1200 hp Horizontal Double Runner Francis Turbine</li> <li>900 kW General Electric Generator</li> <li>Rated hydraulic capacity: 388 cfs</li> <li>Unit 2</li> <li>1333 hp Horizontal Double Runner Francis Turbine</li> <li>1000 kW Westinghouse Generator</li> <li>Rated hydraulic capacity: 467 cfs</li> </ul> Total <ul> <li>1,900 kW generating capacity</li> <li>855 cfs hydraulic capacity</li> </ul>	<ul> <li>Unit 1</li> <li>Horizontal double runner turbine</li> <li>800 hp Turbine</li> <li>550 kW Generator</li> <li>Unit 2</li> <li>Horizontal double runner turbine</li> <li>500 hp Turbine</li> <li>350 kW Generator</li> </ul> Total <ul> <li>900 kW generating capacity</li> <li>700 cfs hydraulic capacity</li> </ul>	
	Trashrack clear spacing (inches) for each trashrack	1.75	1.875 inches	1.875 inches	
	Approach water velocity (ft/s) at each intake if known	0.66 feet per second	0.89 feet per second	1.60 feet per second	
	Dates and types of major equipment upgrades/	<ul> <li>1977: Installation of new headgates and trashracks. Existing flume and powerhouse foundation were replaced with two new penstocks and a new powerhouse.</li> <li>1977: Two rebuilt turbine-generator units.</li> <li>1991: Boat barrier and safety signage.</li> <li>1996: Public safety fencing and signage.</li> </ul>	1987: Turbine/generator upgrades 1991: Addition of boat barrier and safety signage.	1991: Boater barrier and safety signage. 1999: Retaining wall repair. 2010: Intake maintenance repairs.	
	For recertifications: Indicate only those since last certification	N/A	N/A	N/A	

14	Information Requested	Response			
Item		Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6	
	Dates, purpose, and type of any recent operational changes	N/A	N/A	N/A	
	For recertifications: Indicate only those since last certification	N/A	N/A	N/A	
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	There are no plans for operation or facility changes at this time.	There are no plans for operation or facility changes at this time.	There are no plans for operation or facility changes at this time.	
	Date of original dam or diversion construction and description and dates of subsequent dam or diversion structure modifications	1910	1936	circa 1930	
Dam or Diversion	Dam or diversion structure length, height including separately the height of any flashboards, inflatable dams, etc. and describe seasonal operation of flashboards and the like	A 68-foot-long and 16-foot-high reinforced concrete non-overflow, buttress type structure. There are no flashboards.	Dam #1: 105-foot-long and 14-foot-high concrete gravity structure with a permanent spillway crest elevation of 459-ft NGVD. The spillway crest is topped by a 2-ft high Obermeyer pneumatic crest gate system. Dam #2: 58-foot-long and 5-foot-high concrete gravity structure with a permanent spillway crest elevation of approximately 459.02-ft NGVD topped by 2-foot-high wooden flashboards.	A 150-foot long, 10-foot-high reinforced concrete gravity overflow-type dam with a crest elevation of 487 ft NGVD. There are no flashboards.	
	Spillway maximum hydraulic capacity	N/A	N/A	N/A	
	Length and type of each penstock and water conveyance structure between the impoundment and powerhouse	Two corrugated metal pipe penstocks: one 90-foot-long, 9-foot-diameter penstock and one 95-foot-long, 8.5-foot-diameter penstock.	There are no penstocks. Water is conveyed from the impoundment to the powerhouse via a concrete-lined 170-foot-long forebay canal.	There are no penstocks. Water is conveyed directly from the impoundment to the powerhouse.	
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	Hydropower	Hydropower	Hydropower	
Conduit Equilities Only	Date of conduit construction and primary purpose of conduit	Not a conduit project.	Not a conduit project	Not a conduit project	
Condult racilities Only	Source water	N/A	N/A	N/A	
	Receiving water and location of discharge	N/A	N/A	N/A	
Impoundment and Watershed	Authorized maximum and minimum impoundment water surface elevations	N/A due to ROR operation	N/A due to ROR operation	N/A due to ROR operation	

14	Information Democrad	Response					
Item	Information Requested	Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6			
	For recertifications: Indicate if these values have changed since last certification	N/A	N/A	N/A			
	Normal operating elevations and normal fluctuation range	Normal impoundment elevation = 427.2-ft NGVD. No fluctuation due to ROR operation.	Normal impoundment elevation = 461-ft NGVD. No fluctuation due to ROR operation.	Normal impoundment elevation = 487-ft NGVD. No fluctuation due to ROR operation.			
	For recertifications: Indicate if these values have changed since last certification	N/A	N/A	N/A			
	Gross storage volume and surface area at full pool	Surface Area = 6.5 acres Gross Storage Volume = 35 acre-ft	Surface area = 2.0 acres Gross Storage Volume = 20-acre-ft	Surface Area = 4.0 acres Gross Storage Volume = 37 acre-ft			
	For recertifications: Indicate if these values have changed since last certification	N/A	N/A	N/A			
	Usable storage volume and surface area	Project is operated as ROR and therefore has negligible useable storage	Project is operated as ROR and therefore has negligible useable storage.	Project is operated as ROR and therefore has negligible useable storage.			
	For recertifications: Indicate if these values have changed since last certification	N/A	N/A	N/A			
	Describe requirements related to impoundment inflow and outflow, elevation restrictions (e.g., fluctuation limits, seasonality) up/down ramping and refill rate restrictions.	The Project is operated as ROR.	The Project is operated as ROR. The impoundment shall not be drawn down more than 3 inches below the top of the flashboards, or top of dam crest when flashboards are not in.	The Project is operated as ROR.			
	Downstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which downstream dams have upstream fish passage.	See description for Hailesboro 6.	See description for Hailesboro 6.	<ul> <li>Excluding the Hailesboro Projects, there are numerous dams downstream on the Oswegatchie River including: Gouverneur, Natural Dam, Heuvelton, Eel Weir, and Ogdensburg.</li> <li>Gouverneur Dam (FERC No. 14635) is owned by the Village of Gouverneur, NY at RM 64.4. There is no upstream fish passage.</li> <li>Natural Dam (FERC No. 2851) is owned by Dunn Paper at RM 62.4. There is no upstream fish passage.</li> </ul>			

ltom	Information Requested	Response			
nem	mornation requested	Hailesboro No. 3	Hailesboro No.4		
	Upstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which upstream dams have downstream fish passage	See Hailesboro 6.	See Hailesboro 6.		

Usilashara Na C
Hallesboro No.6
Heuvelton Dam (FERC No. 2713) is owned by Erie Boulevard Hydropower, L.P. at RM 12. There is active upstream fish passage that was created in 2016.
Eel Weir Dam (FERC No. 2713) is owned by Erie Boulevard Hydropower, L.P. at RM 5.1. There is active upstream fish passage that was created in 2016.
Ogdensburg Dam (FERC No. 9821) is owned by the City of Ogdensburg, NY at the mouth of the Oswegatchie River. There are no upstream fish passage.
Excluding the Hailesboro Projects, there are numerous dams upstream on the Oswegatchie River including: Fowler No. 7, Emeryville, Talcville, South Edwards, and Browns Falls.
Fowler No. 7 Dam (FERC No. 6059) is owned by Hydroland Omega, LLC at RM 69.1. Downstream fish passage for resident fish is provided via a bypass sluice.
Emeryville Dam (FERC No. 2850) is owned by KEI Power Management at RM 70. Downstream passage for resident fish is provided via a bypass flume installed in ~2015.
Talcville Dam (FERC No. 4402) is owned by Erie Boulevard Hydropower, L.P. at RM 75. There are no downstream fish passage facilities.
South Edwards Dam (FERC No. 2713) is owned by Erie Boulevard Hydropower, L.P. at

ltom	Information Decuasted	Response			
item	Information Requested	Hailesboro No. 3	Hailesboro No.4	Hail	esboro No.6
				RM 87. There are n passage facilities. Browns Falls Dam ( by Erie Boulevard H There are no down facilities.	o downstream fish FERC No. 2713) is owned Iydropower, L.P.at RM 97. stream fish passage
	Operating agreements with upstream or downstream facilities that affect water None availability and facility operation		None		None
	Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control. Indicate locations and acres of flowage rights versus fee-owned property.				
Hydrologic Setting	Average annual flow at the dam, and period of record used	See Hailesboro No. 6.	See Hailesboro No. 6.	Average annual flo cfs, which is based recorded from Janu December 31, 2021 USGS gages (USGS 04262000).	w at the Projects is 1,534 on prorated flows uary 1, 1988 through I at the two upstream Gage No. 04262500 and
				Average flows per month are provided below based on prorated flows recorded from January 1, 1988 through December 31, 2021 at the two upstream USGS gages (USGS Gage No. 04262500 and 04262000).	
				Month	Average Flow (cfs)
	Average monthly flows and period of record			January	1,777
	used	See Hallesboro No. 6.	See Hallesboro No. 6.	February	1,355
				March	2,062
				April	2,990
				May	1,822
				June	1,205
				July	858
				August	695

14	Information Descreted	Response						
Item	Information Requested	Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6				
				September 691				
				October 1,339				
				November 1,842				
				December 1,778				
	Location and name of closest stream gaging stations above and below the facility	See description for Hailesboro 6.	See description for Hailesboro 6.	Downstream of Hailesboro 3 (Active) USGS Gage No.: 04263000 Gage Name: OSEGATCHIE RIVER NEAR HEUVELTON NY Upstream of Hailesboro 6 (Active) USGS Gage No.: 04262000 Gage Name: OSEGATCHIE RIVER NEAR OSWEGATCHIE NY				
	Watershed area at the dam (in square miles). Identify if this value is prorated from gage locations and provide the basis for proration calculation.	The drainage area at the Projects is approximately 680 square miles.The drainage area at the Projects is approximately 680 square miles.		The drainage area at the Projects is approximately 680 square miles.				
	Other facility specific hydrologic information (e.g., average hydrograph)	N/A	N/A	N/A				
Designated Zones of Effect	Numbers and names of each zone of effect (e.g., Zone 1: Impoundment)	See Hailesboro 6.	See Hailesboro 6.	<ul> <li>Zone 1: Island Branch from Island Branch Weir to confluence with Oswegatchie River.</li> <li>Zone 2: Hailesboro 6 Impoundment.</li> <li>Zone 3: Hailesboro 6 Bypassed Reach.</li> <li>Zone 4: Hailesboro 6 Tailrace area and downstream reach (including Hailesboro 4 Impoundment).</li> <li>Zone 5: Hailesboro 4 Bypassed Reach (from Dam #1 and Dam #2 extending downstream to upper extent of Gouverneur Project impoundment).</li> <li>Zone 6: Hailesboro 3 Impoundment.</li> <li>Zone 7: Hailesboro 3 Bypassed Reach.</li> <li>Zone 8: Hailesboro 3 Tailrace area and downstream reach to confluence around the island.</li> </ul>				

ltour	Information Decreated		Response			
item	Information Requested	Hailesboro No. 3	Hailesboro No.4	Hailesboro No.6		
	River mile of upstream and downstream limits of each zone of effect (e.g., Zone 1 Impoundment: RM 6.3 - 5.1)	See Hailesboro 6.	See Hailesboro 6.	<ul> <li>Zone 1: Island Branch (~4 miles long).</li> <li>Zone 2: Hailesboro 6 Impoundment (RM 68.5 - 68.2).</li> <li>Zone 3: Hailesboro 6 Bypassed Reach (RM 68.2 - 68.1).</li> <li>Zone 4: Hailesboro 6 Tailrace area and downstream reach (including Hailesboro 4 Impoundment) (RM 68.1 - 67.7).</li> <li>Zone 5: Hailesboro 4 Bypassed Reach (from Dam #1 and Dam #2 extending downstream to upper extent of Gouverneur Project impoundment) (~0.4 miles long).</li> <li>Zone 6: Hailesboro 3 Impoundment (RM 67.7 - 67.5).</li> <li>Zone 7: Hailesboro 3 Bypassed Reach (RM 67.5 - 67.45).</li> <li>Zone 8: Hailesboro 3 Tailrace area and downstream reach to confluence around the island (RM 67.45 - 67.1).</li> </ul>		
<b>Pre-Operational Facilities On</b>	ly					
Expected operational date	Date generation is expected to begin	N/A	N/A	N/A		
Dam, diversion structure or conduit modification	Description of modifications made to a pre- existing conduit, dam or diversion structure needed to accommodate facility generation. This includes installation of flashboards or raising the flashboard height.	N/A	N/A	N/A		
	completed	N/A	N/A	N/A		
Change in water flow regime	Description of any change in impoundment levels, water flows or operations required for new generation	N/A	N/A	N/A		

# 2.0 STANDARDS MATRICES

#### 2.1 Zones of Effect

There are 8 zones of effect (ZOEs) at the Hailesboro Projects starting from RM 68.5 to RM 67.1, with each zone only affecting the riverine habitat up to the normal water surface elevation (Figure 2-1). Table 2-1 provides the standard matrices for each zone.

Zone 1: Island Branch from the Island Branch Weir downstream to the confluence with the Oswegatchie River.

Zone 2: Hailesboro 6 Project Impoundment.

Zone 3: Hailesboro 6 Project Bypassed Reach.

Zone 4: Hailesboro 6 Project Tailrace Area and Hailesboro 4 Project Impoundment.

Zone 5: Hailesboro 4 Project Bypassed Reach (from Dam #1 and Dam #2 extending downstream to the upper extent of the Gouverneur Project impoundment).

Zone 6: Hailesboro 3 Project Impoundment (including the Hailesboro 4 Project Tailrace Area).

Zone 7: Hailesboro 3 Project Bypassed Reach.

Zone 8: Hailesboro 3 Project Tailrace Area and downstream reach to confluence with mainstem.



#### Figure 2-1 Zones of Effect for the Hailesboro No. 3, No. 4, and No. 6 Projects

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#### Table 2-1 Standards Matrix for each ZOE for the Hailesboro Projects

		Approx. River		Criterion						
		Mile (RM) at	А	В	С	D	E	F	G	н
ZOE No.	ZOE Name	Lower Extent of Zone	Ecological Flows	Water Quality	Upstream Fish Passage	Downstream Fish Passage	Shoreline and Watershed Protection	Threatened and Endangered Species	Cultural and Historic Resources	Recreational Resources
1	Island Branch	~4 miles long	2	1	1	1	1	2	1	1
2	H6 Impoundment	68.5-68.2	1	1	1	1	1	2	1	1
3	H6 Bypassed Reach	68.2-68.1	2	1	1	1	1	2	1	1
4	H6 Tailrace Area & H4 Impoundment	68.1-67.7	1	1	1	1	1	2	1	2
5	H4 Bypassed Reach	~0.4 mile long	2	1	1	1	1	2	1	1
6	H4 Tailrace Area & H3 Impoundment	67.7-67.5	1	1	1	1	1	2	1	2
7	H3 Bypassed Reach	67.5-67.45	2	1	1	1	1	2	1	1
8	H3 Tailrace Area and Downstream	67.45-67.1	1	1	1	1	1	2	1	2

### 3.0 SUPPORTING INFORMATION

#### 3.1 Ecological Flows Standards

Flow data for the Projects was estimated using the following two upstream U.S. Geological Survey (USGS) gages using the period of record between 1988 through 2021.

- USGS Gage No. 04262500 West Branch Oswegatchie River near Harrisville, NY
- USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY

The Projects operte in a ROR mode; inflow into the Hailesboro No. 6 Project equals outflow below the confluence of the Hailesboro No. 3 downstream reach and the main stem of the Oswegatchie River (which includes flow from Island Branch). Therefore, inflow to the Hailesboro No. 6 Project (most upstream dam) was estimated.

The sum of daily flow as measured at the two USGS gages was calculated and then prorated by 1.32 to estimate daily flow into the Projects. The Projects have a drainage area of approximately 680 square miles and the combined drainage of the two gages is approximately 517 square miles.

Month	Average Flow (cfs)
January	1,777
February	1,355
March	2,062
April	2,990
May	1,822
June	1,205
July	858
August	695
September	691
October	1,339
November	1,842
December	1,778

#### Table 3.1 Estimated Average Flow at the Hailesboro Projects

Month	Average Flow (cfs)
Annual	1,534

Based on a compliance review of the FERC administrative record and HDGA files, there have not been any deviations/non-compliance issues for the Hailesboro Projects in relation to Ecological Flow Standards.

The Projects operate as ROR facilities and HDGA follows guidance on providing the required minimum flows as recommended by the agencies as well as required by the FERC License for the Hailesboro No. 4 Project. It is not expected the facilities have significant negative impacts on flow in the Oswegatchie River or on fish and wildlife resources.

Criterion	Standard	Instructions
A	1	<ul> <li>Not Applicable / De Minimis Effect:</li> <li>Confirm the location of the powerhouse relative to any dam/diversion structures and demonstrate that there are no bypassed reaches associated with the applicable Zone of Effect.</li> <li>For run-of-river facilities, provide details on operations and describe how flows, water levels, and operations are monitored to ensure such an operational mode is maintained. In a conduit facility, identify the source waters, location of discharge points, and receiving waters for the conduit system within which the hydropower facility is located. This standard cannot be used for conduits that discharge to a natural waterbody.</li> <li>For impoundment zones, explain water management (e.g., fluctuations, ramping, refill rates, restrictions) and how those requirements support fish and wildlife habitat within the ZOE.</li> </ul>

3.1.1 ZOEs 2, 4, 6 (Impoundments), and 8 (Downstream of Hailesboro No. 3)
ZOEs 2, 4, and 6 are the Project impoundments. All three Projects operate in a true ROR mode in which inflow approximates outflow and impoundment fluctuations are minimized.

The Hailesboro No. 6 impoundment receives flow from the upstream FERC-licensed Fowler No. 7 Project. The Hailesboro No. 6 impoundment (ZOE 2) is approximately 4 acres and has negligible storage capacity. There are no specific operational requirements for the impoundment as none have been recommended by any resource agency and the Project operates in a ROR mode, minimizing fluctuations in the impoundment. According to a FERC Environmental Inspection Report from 2001, a transducer is located at the intake to measure headpond level.

The Hailesboro No. 4 impoundment (ZOE 4) receives flows from the Hailesboro No. 6 Project (over the dam and through the powerhouse) and is operated in a ROR mode. According to FERC License Article 402, the operational elevation range in the impoundment is limited to within 3 inches from the top of the flashboards (not below elevation 460.75 feet NGVD), or within 3 inches of the permanent crest of the dams when the flashboards are not in place, during normal operations. The limit of 3 inches of impoundment fluctuation was agreed upon by the Licensee, FERC, and USFWS for the protection of water quality and aquatic resources during the relicensing of the Project as described in FERC's 2002 Environmental Assessment.

As required by FERC License Article 404 and WQC Condition 7, HDGA implements a Flow Monitoring Plan for the Hailesboro No. 4 Project that was developed in consultation with the NYSDEC and USFWS and approved by FERC. ROR operations are maintained by passing all inflows through the Project's turbines while maintaining a stable headpond level, or the spillways (Dam #1 and #2) when the units are offline, or via both turbines and spillways when inflow exceeds the hydraulic capacity of the operating turbines. Compliance with ROR operations is monitored by documenting the headpond levels with an electronic headpond gage. Documentation of hourly water levels and generation status is recorded. A staff gage is also located at the headworks that is visible to operating staff, agency staff, or the public.

The Hailesboro No. 4 WQC Condition 13 outlines requirements for construction and/or maintenance impoundment drawdowns. Water level is not drawn down more than 1 foot per hour. During refill of the impoundment, 50% of inflow to the impoundment is released to the river, and 50% is used to refill the impoundment.

The Hailesboro No. 3 impoundment (ZOE 6) receives water from the Hailesboro No. 4 powerhouse. The Project operates in a ROR mode while providing a minimum bypass flow of 3 cfs. ZOE 8 is the tailrace and downstream reach below the Hailesboro No. 3 Project.

Criterion	Standard	Instructions
A	2	<ul> <li>Agency Recommendation</li> <li>Identify the proceeding and source, date, and specifics of the agency recommendation applied (NOTE: there may be more than one; identify and explain which is most environmentally protective).</li> <li>Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is or is not part of a Settlement Agreement.</li> <li>Explain how the recommendation relates to formal agency management goals and objectives for fish and wildlife.</li> <li>Explain how the recommendation provides fish and wildlife protection, mitigation, and enhancement (including instream flows, ramping, and peaking rate conditions, and seasonal and episodic instream flow variations).</li> </ul>

# 3.1.2 ZOEs 1 (Island Branch), 5 (Downstream of Hailesboro No. 4 Dams), and 7 (Hailesboro No. 3 Bypassed Reach)

Flows in ZOE 1 (Island Branch) are controlled by the Island Branch Weir, a 73-footlong, 3-foot-high concrete gravity diversion dam, topped with 1-foot-high wood flashboards, located at the entrance of Island Branch of the Oswegatchie River. The weir structure is notched to provide a continuous minimum flow of 30 cfs into the Island Branch as recommended by the USFWS during the previous relicensing and incorporated into the existing FERC License (Article 403) for the Hailesboro No. 4 Project. As described in FERC's Environmental Assessment for the Hailesboro No. 4 Project (2002), due to the vertical rise of the riverbanks, the wetted area of the reach varies little with increased flow. At 40 cfs, the riverbanks, the areal fully wetted. The 30 cfs was determined to adequately maintain the fish habitat.

ZOE 5 is the reach downstream of Hailesboro No. 4 Dams #1 and #2 (also known as Middle Branch of the Oswegatchie River). In accordance with FERC License Article 403 and WQC Condition 5, HDGA releases minimum flows of 20 cfs at Dam #1 and 8 cfs from Dam #2. The 20 cfs minimum flow below Dam #1 is provided via a stoplog bay in the intake wall, adjacent to the downstream end of the trashracks. This spill and flow also provides for safe downstream fish passage. The 8 cfs minimum flow released at Dam #2 is satisfied by normal leakage flow.

Also in accordance with FERC License Article 403 and WQC Condition 5, during the walleye spawning season, a total minimum flow of 105 cfs is released into the combined reaches below Dams #1 and #2 (Middle Branch) to facilitate walleye spawning. The walleye spawning season starts when the water temperature reaches 4°C (39.2°F) for 4 consecutive days after March 15 of each year. The walleye spawning season ends 30 days after water temperature has reached 10°C (50°F). HDGA monitors water temperature to determine the release seasonality. The walleye spawning flow is provided by spillage in excess of the hydraulic capacity (855 cfs) of the powerhouse, or by reducing generation and lowering the pneumatic crest gate on Dam #1. Alternatively, HDGA may lower the pneumatic crest gate on Dam #1 by 0.87 feet to release 77 cfs of spill at full pond, in additional to the 20 cfs released at the intake sluice and 8 cfs of leakage at Dam #2.

During the last relicensing and as described in the FERC Environmental Assessment (2002) for the Hailesboro No. 4 Project, the Licensee conducted a flow demonstration study in consultation with the USFWS and NYSDEC to determine appropriate minimum flows downstream of the Hailesboro No. 4 Dams #1 and #2. In general, the habitat of the downstream reach was determined to be poor, consisting of predominately bedrock substrate. A total flow of 28 cfs was determined to benefit the macroinvertebrate population, which may enhance the forage fish base for the downstream fishery. The downstream portion of the reach contains suitable habitat for walleye spawning. During the flow demonstration and coordination with the USFWS and NYSDEC, a minimum flow of 105 cfs was determined to be sufficient to protect walleye spawning in this reach. As stated above, HDGA measures water temperature to determine walleye spawning season and seasonal release schedule.

The Licensee's Flow Monitoring Plan (2003) outlines compliance with minimum flows at the Hailesboro No. 4 Project, including Island Branch (ZOEs 1 and 5). Monitoring and verification of the 20 cfs minimum flow at Dam #1 is facilitated by the location of the minimum flow sluice adjacent to the trashracks, which is inspected and cleaned

as needed. The 8 cfs of leakage at Dam #2 is available as long as the headpond is maintained at full pond elevation. This is monitored via a water surface reference mark within the outlet channel of Dam #2, which is checked and logged weekly. To monitor flows in Island Branch, a staff gage is located at the bridge crossing over Island Branch, which is checked and logged weekly.

HDGA provides a minimum flow of 3 cfs into ZOE 7 (Hailesboro No. 3 bypassed reach) as recommended by NYSDEC in support of the FERC exemption.

Criterion	Standard	Instructions				
A	1	<ul> <li>Not Applicable / De Minimis Effect:</li> <li>Confirm the location of the powerhouse relative to any dam/diversion structures and demonstrate that there are no bypassed reaches associated with the applicable ZOE.</li> <li>For run-of-river facilities, provide details on operations and describe how flows, water levels, and operations are monitored to ensure such an operational mode is maintained. In a conduit facility, identify the source waters, location of discharge points, and receiving waters for the conduit system within which the hydropower facility is located. This standard cannot be used for conduits that discharge to a natural waterbody.</li> <li>For impoundment zones, explain water management (e.g., fluctuations, ramping, refill rates, restrictions) and how those requirements support fish and wildlife habitat within the ZOE.</li> </ul>				

3.1.3 ZOE 3 (Hailesboro 6 Bypassed Reach)

There is no recommendation or requirement for a minimum flow in the Hailesboro No. 6 bypassed reach. As shown in Photograph 1-2 above, there is a notch in the Hailesboro No. 6 dam, which provides a continuous flow into the Hailesboro No. 6 bypassed reach under normal operating conditions.

Based on the maximum hydraulic capacity of the Hailesboro No. 6 powerhouse (700 cfs) and the inflow duration curve for the Project, flows that exceed 700 cfs resulting in spill into the bypassed reach occur approximately 73 percent of the time annually.

FERC Environmental Inspection Report, 2001 (Hailesboro No. 6): Accession Number 20020308-9004

FERC Environmental Assessment, 2002 (Hailesboro No. 4): Accession No. 20020701

NYSDEC Water Quality Certificate (Hailesboro No. 4): Accession No. 20020122-0323

FERC Order Issuing License, 2002 (Hailesboro No. 4): Accession No. 20021030

FERC Order Amending License, 2003 (Hailesboro No. 4): Accession No. 20030416

Flow Monitoring Plan, 2003 (Hailesboro No. 4): Accession No. 20030711-0223

FERC Order Approving Flow Monitoring Plan, 2004 (Hailesboro No. 4): Accession No. 20040525-3032

#### 3.2 Water Quality Standards

#### 3.2.1 All ZOEs

Criterion	Standard	Instructions
В	1	Not Applicable / De Minimis Effect:
		• Explain the rationale for why the facility does not alter water quality characteristics below, around, and above the
		facility.

The Oswegatchie River from 0.4 miles upstream of the N.Y.C. railroad bridge at Gouverneur to the bridge at Talcville (which encompasses the entire area occupied by the Hailesboro Projects) is designated as Class A waters. The best usages of Class A waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish and wildlife propagation and survival.

The most recent final Clean Water Act Section 303(d) impaired waters list can be accessed here: <u>NYS Section 303(d) List of Impaired/TMDL Waters - NYS Dept. of Environmental Conservation</u>. The Projects' waters are not listed.

The state's most recent Section 305(b) integrated water quality report can be accessed here: <u>NYS Section 305(b) Water Quality Report - NYS Dept. of Environmental Conservation</u>. The Projects' waters are not listed.

The Hailesboro No. 6 Project received an exemption from FERC on September 17, 1981. A WQC was issued for the Project according to a 1994 letter from the NYSDEC (Attachment C).

The Hailesboro No. 4 Project was issued a WQC on December 21, 2001 in support of the existing FERC license for the Project. The WQC includes provisions for operation of the Project as well as the protection of water quality during Project maintenance and/or construction activities. A copy of the WQC is provided in Attachment C.

The Hailesboro No. 3 Project received an exemption from FERC on July 14, 1982. A WQC was issued for the Project according to a 1994 letter from the NYSDEC (Attachment C). Additionally, the NYSDEC issued comments and recommendations for the exemption via

letter dated June 28, 1982. As indicated in the NYSDEC's June 28, 1982 letter, no known water quality issues associated with Project operation were identified.

As indicated in the 2002 FERC Environmental Assessment for the Hailesboro No. 4 Project, water quality in the Project reach is typical of Adirondack rivers and is characterized as brownish in color, mineral poor, and well oxygenated. Available water quality data indicated that the Project waters were in compliance with state water quality standards. FERC found that the Project's shallow impoundment likely reduces the potential for oxygen depletion during low-flow, high-temperature periods as even at the minimum recorded flow at the Project, the impoundment turns over more than four times in one day. Therefore, water has little time to stagnate. Additionally, the numerous gorges, falls, boulders, and cobble riffles also ensure adequate aeration throughout the river reaches. Although these findings are specific to the waters within the Hailesboro No. 4 Project area, based on the ROR operations, similar size of the impoundments as well as the very close proximity to the Hailesboro No. 3 and No. 6 Projects. Additionally, water quality studies were performed in 2018 in the vicinity of the Gouverneur Dam (located downstream of the Hailesboro No. 3 Project) and indicated compliance with state water quality standards.

As part of the NYSDEC Rotating Integrated Basin Studies (RIBS), macroinvertebrate sampling (09-GTCH-66.3) was completed on September 11, 2019 in Middle Branch just downstream of Dam #1 of the Hailesboro No. 4 Project (within ZOE 5). Macroinvertebrates can help assess water quality due to their sensitivity to environmental impacts and limited mobility. A Biological Assessment Profile (BAP) score is calculated for each stream site which indicates how severe the water quality is impacted or not impacted. Based on the studies from the NYSDEC, in 2019, water quality was slightly impacted (BAP score of 7.35).

Other than temperature monitoring in the Hailesboro No. 4 Project area in support of providing seasonal flows downstream of Dam #1 and #2 for walleye spawning, there is no continuous or ongoing monitoring at the Projects, nor is any other sampling recommended or required by state or federal agencies.

FERC Environmental Assessment, 2002 (Hailesboro No. 4): Accession No. 20020701

NYSDEC Water Quality Certificate (Hailesboro No. 4): Accession No. 20020122-0323

FERC Order Issuing License, 2002 (Hailesboro No. 4): Accession No. 20021030

#### 3.3 Upstream Fish Passage Standards

## 3.3.1 All ZOEs

Criterion	Standard	Instructions
С	1	Not Applicable/ De Minimis Effect:
		<ul> <li>The facility does not create a barrier to upstream passage,</li> </ul>
		or
		• There are no migratory fish in the vicinity of the facility and the facility is not the cause of extirpation of such species if they had been present historically.

There are no upstream fish passage facilities at the Projects because there are no migratory species in the vicinity of the Projects. Upstream passage to the Oswegatchie River is currently blocked by several dams and natural falls located downstream of the Hailesboro Projects, including the Ogdensburg Dam (first dam on the river), Natural Dam, and Gouverneur Dam.

As indicated in the 2002 Environmental Assessment for the Hailesboro No. 4 Project, dating back to 1931 and encompassing four different fishery surveys, there are no records of anadromous or catadromous fish species inhabiting the Oswegatchie River between Gouverneur and Cranberry Lake (Carlson, 1992). Given the lack of migratory fish species in the Projects vicinity, there were no recommendations for upstream fish passage.

FERC Environmental Assessment, 2002 (Hailesboro No. 4): Accession No. 20020701



#### Figure 3-1 Dams Located on the Oswegatchie River

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## 3.4 Downstream Fish Passage and Protection Standards

Based on historical information collected in the vicinity of the Projects (Hydro Development Group 2001), fish species listed in Table 3-1 may be located in the vicinity of the Projects. According to the 2001 License Application for the Hailesboro No. 4 Project, a Fisheries Study performed at the Project indicated that fisheries of the Oswegatchie River in the Project vicinity consist of a mix of warm and cool water species. The most abundant species captured during the surveys were rock bass, fallfish, and pumpkinseed. As described in Section 3.3.1, there are no migratory species located in the vicinity of the Projects.

Common Name	Scientific Name
Blacknose Dace	Rhinichthys atratulus
Bluegill	Lepomis macrochirus
Brown Bullhead	Ameiurus nebulosus
Chain Pickerel	Esox niger
Fallfish	Semotilus corporalis
Largemouth Bass	Micropterus salmoides
Northern Pike	Esox lucius
Pumpkinseed	Lepomis gibbosus
Redbelly Dace	Phoxinus eos
Rock Bass	Ambloplites rupestris
Shiner sp.	Notropis sp.
Smallmouth Bass	Micropterus dolomieui
Walleye	Sander vitreus
White Sucker	Catostomus commersoni
Yellow Perch	Perca flavescens

#### Table 3-1Fish Species Found in the Oswegatchie River near the Hailesboro Projects

#### 3.4.1 All ZOEs

Criterion	Standard	Instructions
D	1	Not Applicable / De Minimis Effect:
		• Explain why the facility does not impose a barrier to
		downstream fish passage in the designated zone, considering
		both physical obstruction and increased mortality relative to

	<ul><li>natural downstream movement (e.g., entrainment into hydropower turbines).</li><li>For riverine fish populations that are known to move</li></ul>
	downstream, explain why the facility does not contribute adversely to the sustainability of these populations or to their access to habitat necessary for successful completion of their life cycles.
	<ul> <li>Document available fish distribution data and the lack of migratory fish species in the vicinity.</li> </ul>
	<ul> <li>If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.</li> </ul>

There are no downstream fish passage facilities at the Projects because there are no migratory species in the vicinity of the Projects. As indicated in the 2002 Environmental Assessment for the Hailesboro No. 4 Project, dating back to 1931 and encompassing four different fishery surveys, there are no records of anadromous or catadromous fish species inhabiting the Oswegatchie River between Gouverneur and Cranberry Lake (Carlson, 1992). Given the lack of migratory fish species in the Projects vicinity, there were no recommendations for downstream fish passage.

## 3.5 Shoreline and Watershed Protection Standards

Criterion	Standard	Instructions
E	1	Not Applicable / De Minimis Effect:
		• If there are no lands with significant ecological value associated
		with the facility, document and justify this (e.g., describe the
		land use and land cover within the Project boundary).
		<ul> <li>Document that there have been no Shoreline Management</li> </ul>
		Plans or similar protection requirements for the facility.

## 3.5.1 All ZOEs

There are no Shoreline Management Plans for the Hailesboro Projects.

Pursuant to Article 409 of the Hailesboro No. 4 Project, the licensee developed a Woody Debris Management Plan in consultation with the USFWS and NYSDEC for the management of large woody debris that collects near the Project intake. Pursuant to the plan filed with FERC on May 1, 2003, on at least an annual basis, the licensee monitors the

impoundment shoreline for the presence of dead trees which could fall into the water and become a hazard to navigation or Project operations. The licensee removes such trees identified to the extent possible within the constraints of personnel safety, property rights, landowner permissions, and local ordinances.

Article 406 of the FERC License for the Hailesboro No. 4 Project requires that the licensee file with the NYSDEC an erosion and sediment control plan at least 60 days prior to any earth disturbing maintenance or construction activities. WQC Condition 11 provides for specific erosion and sediment control measures the licensee must adhere to during routine maintenance or construction. The WQC contains additional conditions (such as 9, 10, 13, 14, and 15) related to watershed protection, including measures to reduce turbidity during dredging, analyzing sediment for contaminants prior to disposal, construction drawdown guidance, and downstream river flow maintenance and turbidity monitoring during construction or maintenance activities.

The Projects operate in ROR mode and minimize impoundment fluctuations. The Hailesboro No. 4 FERC License Articles 401 and 402 require ROR operation and a 3-inch impoundment fluctuation limit, respectively. During the relicensing of the Hailesboro No. 4 Project, the 3-inch impoundment limit was recommended by the NYSDEC and FERC and the USFWS agreed to this measure, as well. Operating the Projects in a ROR mode provides protection for aquatic resources and also reduces erosion that may be caused by frequent, intense changes in water levels.

In addition, there are no river segments listed on the Nationwide Rivers Inventory nor are there any Wild and Scenic Rivers in the Projects' area. Also, as stated in Section 3.6, there is no critical habitat located in the vicinity of the Projects.

The headwaters of the Oswegatchie River originate in the Adirondack Mountains and the river flows generally in a westerly direction until taking a northerly turn before entering the St. Lawrence River at Ogdensburg, New York. The basin drains an area of 1,034 square miles, including 82,814 acres of wetlands and 1,344 miles of streams. There are 11 hydroelectric projects (17 developments) along the 132-mile-long Oswegatchie River. The drainage area at the Projects is approximately 680 square miles. A watershed map is shown below as Figure 3-2.

The topography of the basin is characterized by mountains to the east and areas of small hills with exposed bedrock to the west as elevations decrease toward the St. Lawrence River. The Hailesboro Projects are located in a remote area surrounded by undeveloped, privately owned land. Access to the river is limited, except for a few private roads.

Land cover within the Projects' areas is dominated by open water, deciduous forest, evergreen forest, woody wetlands, and grassland, followed by developed land (mostly low intensity developed land and developed open space), mixed forest, emergent herbaceous wetlands, pasture, and scrub/shrub (Table 3-2). Pasture and hay as well as cultivated crop lands are located adjacent to some Project lands. The forested areas within the Projects are bordering the river near the impoundment, which can help provide bank stability and reduce erosion. Land use and land cover in the vicinity of the Projects in shown in Figures 3-3 and 3-4.



#### Figure 3-2 Oswegatchie River Watershed within the St. Lawrence River Watershed



Figure 3-3 Land Cover within the Zone 1 and Surrounding Lands

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Figure 3-3 Land Cover within Zones 2 through 8 and Surrounding Lands (continued)

Land Cover	Acreages										
Land Cover	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total		
Barren Land											
(Rock/ Sand/		0.18							0.18		
Clay)											
Deciduous	15.82	0.04		1 02	0.74	2 10	0.00	1 85	21.67		
Forest	15.05	0.04		1.05	0.74	2.19	0.00	1.05	21.07		
Developed				0.18	0.03				0.21		
High Intensity				0.10	0.05				0.21		
Developed,	0.45			0.53	0.15		0.01	0.55	1 60		
Low Intensity	0.45			0.55	0.15		0.01	0.55	1.05		
Developed,											
Medium	0.12	0.04	0.00	0.43	0.00			0.00	0.59		
Intensity											
Developed,	1 5 1			033	0.06			0 59	2 49		
Open Space	1.51			0.55	0.00			0.55	2.45		
Emergent											
Herbaceous	0.19	0.28		0.17	0.07	1.05			1.76		
Wetlands											
Evergreen	7 4 3	1 75	049	0.01	0.79			0.84	11 31		
Forest	1.15	1.75	0.15	0.01	0.75			0.01	11.51		
Grassland/	3 13	0 10		0.22		0.22			3 67		
Herbaceous	5.15	0.10		0.22		0.22			5.07		
Mixed Forest	2.05			0.34	0.03		0.14	0.04	2.60		
Open Water	5.65	6.59	1.09	10.78	3.14	5.75		0.19	33.20		
Pasture/ Hay	1.40							0.01	1.40		
Shrub/ Scrub	0.19					0.14			0.33		
Woody	4.68			0.80	1 50				6 99		
Wetlands	7.00			0.00	1.50				0.55		
Total	42.62	8.98	1.57	14.82	6.53	9.36	0.15	4.07	88.11		

Table 3-2Land Cover at the Hailesboro Projects

Limited wetlands exist in the immediate vicinity of the Hailesboro Projects (Table 3-3). Besides riverine and freshwater pond areas, there is one freshwater forested/shrub wetland in ZOE 1 (PFO/SS1A). This wetland is characterized as a palustrine/scrub-shrub forested wetland with broad-leaved deciduous trees that is temporarily flooded. In addition, the Hailesboro No. 3 impoundment is characterized as a freshwater pond (PUBHh), a palustrine system with an unconsolidated bottom that is impounded and permanently flooded. The Hailesboro No. 4 and No. 6 impoundments are characterized as riverine. The permanently flooded riverine areas include lower (low gradient; R2UBH), upper (high gradient, R3UBH), and unknown perennial (unknown gradient, R5UBH) systems.

Wotland Type	Acreages									
wettand Type	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 8	Total		
Freshwater Forest	ed/ Shrub	Wetland								
PFO/SS1A	0.03							0.03		
Freshwater Pond										
PUBHh						7.27		7.27		
Riverine										
R2UBH	4.81				0.09	0.03	1.18	6.11		
R3UBH	8.02	7.13	1.39	11.40	4.53			32.47		
R5UBH	0.04	0.12		0.12	0.19	0.06		0.54		
Total	12.90	7.26	1.39	11.52	4.81	7.36	1.18	46.42		

Table 3-3	NWI Wetlands at the Hailesboro Projects
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Figure 3-4 Wetlands within Zone 1



Figure 3-4 Wetlands within Zones 2 through 8 (continued)

Woody Debris Management Plan, 2003 (Haileboro No. 4 Project): Accession No. 20030507-0092

## **3.6** Threatened and Endangered Species Standards

## 3.6.1 All ZOEs

Criterion	Standard	Instructions
F	2	Finding of No Negative Effects:
		• Identify all federal and state listed species that are or may
		be in the immediate facility area based on current data
		from the appropriate state and federal natural resource
		management agencies.
		Provide documentation that there is no demonstrable
		negative effect of the facility on any listed species in the
		area from an appropriate natural resource management
		agency or provide documentation that habitat for the
		species does not exist within the ZOE or is not impacted
		by facility operations.

Federally listed endangered and threatened species that could potentially occur within the Projects' ZOEs were identified using the USFWS' Information for Planning and Consultation (IPaC) website and NYSDEC Environmental Resource Mapper (ERM) on October 14, 2022 (Attachment B).

## <u>Mammals</u>

One federally listed mammal species, the northern long-eared bat (*Myotis septentrionalis*), may potentially occur within the Projects' vicinity according to the USFWS October 14, 2022, IPaC Report (USFWS 2022a). The northern long-eared bat is state and federal listed as threatened (NYDEC 2022a, USFWS 2022a).

It is possible the northern long-eared bat utilizes areas near the Project, although critical habitat, identifiable winter hibernacula, and individual presence have not been documented in the Projects' area. Additionally, no tree clearing is proposed or anticipated at the Projects. Continued ROR operation of the Projects is anticipated to have no effect on northern long-eared bats that may be located within the vicinity of the Projects.

## **Migratory Birds**

Migratory birds within the Projects' ZOEs were identified using the USFWS' IPaC website (USFWS 2022a). The belted kingfisher (*Megaceryle alcyon*), black-billed cuckoo (*Coccyzus erythropthalmus*), chimney swift (*Chaetura pelagica*), goldenwinged warbler (*Vermivora chrysoptera*), and wood thrush (*Hylocichla mustelina*) were all identified as potentially occurring migratory birds to utilize areas within or near the Projects' vicinity.

The belted kingfisher is a "Bird of Conservation Concern (BCC)-Bird Conservation Regions (BCR)" under the Migratory Bird Treaty Act (MBTA) federally and "Protected Bird (PB)" by the State of New York but is not a federal or state-listed species. Probability of occurrence in or near the Projects are likely during the breeding season in late July. Belted kingfishers require access to bodies of water for feeding and habitat.

The black-billed cuckoo, chimney swift, golden-winged warbler, and wood thrush are "BCC-Rangewide" federally and "Protected Bird" by the State of New York but are not a federal or state listed RTE species.

The golden-winged warbler is a "Special Concern" species in the State of New York but is not a federal or state-listed RTE species.

Long term presence of the aforementioned bird species is unlikely, but the Projects' area may be occupied during stop-over or breeding periods. Continued ROR operation of the Projects is anticipated to have no adverse effect on the aforementioned bird species that may be located within the vicinity of the Projects.

#### Insects

The monarch butterfly (*Danaus plexippus*) is a candidate species for federal listing that was identified as potentially occurring within the Projects' ZOEs. The monarch butterfly is a large butterfly with bright orange wings surrounded by a black border and covered with black veins. During breeding season, monarch lay their eggs on milkweeds and larvae emerge after two to five days to feed on milkweed. In northern climates, such as New York, this species undergoes long distance migration starting

in the fall and moving southward. These species may be found flying over the Projects or on milkweed located near or on Project lands. There are no Section 7 requirements under the Endangered Species Act (ESA) for this candidate species but opportunities to protect the species is encouraged (USFWS 2022b).

- The Project does not use pesticides at the facility, and only uses herbicides periodically, avoiding identified common milkweed and milkweed habitat.
- According to the IPaC review, there are no critical habitats in the Projects vicinity for monarch butterfly.
- Current ROR operations do not have an adverse impact on monarch butterflies and their applicable milkweed habitats.

## Fish

No federal or state-listed fish species were identified.

#### 3.7 Cultural and Historic Resource Standards

#### 3.7.1 All ZOEs

Criterion	Standard	Instructions	
G	1	Not Applicable / De Minimis Effect:	
		Document that there are no cultural or historic resources	
		located on facility lands that can be affected by	
		construction or operations of the facility; or	
		<ul> <li>Document that the facility construction and operation</li> </ul>	
		have not in the past, nor currently adversely affect any	
		cultural or historic resources that are present on facility	
		lands; and	

There are no known above-ground or archaeological resources listed in or eligible for listing in the National Register of Historic Places in the Projects' area. No traditional cultural properties have been identified.

During the relicensing of the Hailesboro No. 4 Project, the State Historic Preservation Officer (SHPO) reviewed the proposed action and determined that the relicensing of the Project would have no effect on the cultural resources in or eligible for listing in the National Register of Historical Places.

In the event any archaeological or historic sites are found during operation and maintenance of the Hailesboro No. 4 Project, License Article 411 requires the licensee to consult with the SHPO and prepare a cultural resources management plan.

#### 3.8 Recreational Resources Standards

#### **3.8.1 ZOE 1 (Island Branch)**

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		• Document that the facility does not occupy lands or waters in	
		the designed ZOE to which public access can be granted and	
		that the facility does not otherwise impact recreational	
		opportunities in the facility area.	

No Project recreational facilities or public access locations are located along Island Branch. The majority of the area surrounding Island Branch is forested private property prohibiting access. Portage of the Island Branch Weir is considered dangerous based on the surrounding topography, and Island Branch includes an approximately 12-foot-high waterfall around which there is also no safe portage route.

#### 3.8.2 ZOE 2 (Hailesboro No. 6 Impoundment)

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		• Document that the facility does not occupy lands or waters in	
		the designed 20E to which public access can be granted and that the facility does not otherwise impact recreational	
		opportunities in the facility area.	

No Project recreation facilities or public access locations are located at the Hailesboro No. 6 impoundment. However, access is provided to the river downstream of the Fowler No. 7 Project, which is located upstream of the Hailesboro No. 6 Project.

#### 3.8.3 ZOE 3 (Hailesboro No. 6 Bypassed Reach)

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		<ul> <li>Document that the facility does not occupy lands or waters in the designed ZOE to which public access can be granted and that the facility does not otherwise impact recreational opportunities in the facility area.</li> </ul>	

The Hailesboro No. 6 bypassed reach is approximately 300 feet long. No Project recreation facilities or access locations are provided at the bypassed reach, as the area is surrounded by forested private property limiting access to the bypassed reach.

## 3.8.4 ZOE 4 (Hailesboro No. 4 Impoundment)

Criterion	Standard	Instructions	
Н	2	Agency Recommendation:	
		Document any resource agency recommendations and	
		any enforceable recreation plan that is in place for	
		recreational access or accommodations.	
		• Document that the facility in the designated ZOE is in	
		compliance with all such recommendations and plans.	

The Hailesboro No. 4 impoundment is approximately 2 acres in size. During the relicensing of the Hailesboro No. 4 Project, the town of Fowler requested access for small rowboats and canoes and a boat launch upstream of the Hailesboro No. 4 Project and downstream of the Hailesboro No. 6 Project. Additionally, the Adirondack Mountain Club (ADK) and American Whitewater (AW) requested an investigation of take-out and put-in opportunities at the Hailesboro No. 4 Project.

During the relicensing of the Hailesboro No. 4 Project, ADK requested additional studies at the Project to develop a canoe portage and suitable access for ending or beginning a canoe trip with nearby parking. The Town of Fowler also requested canoe portage at the Hailesboro No. 4 Project. During the relicensing, the licensee proposed a portage around the four projects (Fowler No. 7, and the Hailesboro Projects) to provide a take-out for individuals who access the river at Emeryville and a put-in below the Hailesboro No. 3 Project with directions along the road that runs parallel along the Owegatchie River.

During a site visit in 2001, FERC staff observed a potential access point along the Chub Lake Road immediately upstream of Dam #2 at the Hailesboro No. 4 impoundment. FERC indicated that development of that access point would provide access to the impoundment and additional parking could be provided at the Hailesboro No. 4 powerhouse. Individuals could then carry boats along the road to the put-in, but the access point would not be conducive to picnic tables due to the limited amount of land.

Pursuant to License Article 410, the licensee filed a recreation plan with FERC on July 19, 2004, which was approved with modification by FERC via order dated February 23, 2006.

The 2006 Order required the licensee to update the recreation plan with additional measures required by License Article 410. Accordingly, on August 17, 2006, the licensee filed an updated Recreation Plan, which was approved by FERC via order dated September 26, 2006.

The licensee is in the process of obtaining additional information regarding the recreation facilities provided at the Hailesboro No. 4 Project, which will be provided at a later date.

## 3.8.5 ZOE 5 (Hailesboro No. 4 Bypassed Reach)

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		• Document that the facility does not occupy lands or waters in	
		the designed ZOE to which public access can be granted and	
		that the facility does not otherwise impact recreational	
		opportunities in the facility area.	

The Hailesboro No. 4 bypassed reach (also known as Middle Branch of the Oswegatchie River) consists of two branches that join after approximately 300 feet below the dams and further downstream converge with Island Branch. The 600-foot-long bypassed reach below Dam #2 contains a steep 10-foot drop and passes under a natural bridge before joining with the bypassed reach below Dam #1. The bypassed reach below Dam #1 is a narrow channel. Access to the reach below Dam #1 would require crossing the intake canal to gain access to a steep put-in. In the 2002 EA issued by FERC for the Hailesboro No. 4 Project, FERC concluded that access to the channel below Dam #2 is not advisable due to the undercut rocks and natural bridge that would have varying levels of clearance below it depending on water level. Access to the channel below Dam #1 requires crossing the Hailesboro No. 4 intake canal, which is gated and locked to prevent unauthorized access. FERC determined that such access provisions would provide limited benefit, because the length of the reach is approximately 1,000 feet and, therefore, concluded access below the Hailesboro No. 4 dams is not reasonable.

## 3.8.6 ZOE 6 (Hailesboro No. 3 Impoundment)

Criterion	Standard	Instructions	
Н	2	Agency Recommendation:	
		<ul> <li>Document any resource agency recommendations and any enforceable recreation plan that is in place for recreational access or accommodations.</li> </ul>	

Criterion	Standard	Instructions
		<ul> <li>Document that the facility in the designated ZOE is in</li> </ul>
		compliance with all such recommendations and plans.

During the relicensing of the Hailesboro No. 4 Project, the town of Fowler requested access and an associated area with picnic tables between the Hailesboro No. 3 Project and the village of Gouverneur as well as between the Hailesboro No. 4 and No. 3 Projects.

The licensee provides the following recreation facilities at the Hailesboro No. 3 Project:

- A canoe launch/take-out located on the shore of the Hailesboro No. 3 impoundment upstream of the existing boat barrier (north of the intake structure);
- A parking area to accommodate 4 vehicles;
- A canoe launch access trail leading from the parking area along the site access road, crossing over the Project's intake structure, to the canoe launch site;
- Safety fencing along the intake structure to prevent the public from accessing the trashracks and other potentially dangerous areas;
- A picnic area on the lawn north of the intake structure; and
- Appropriate signage.



Photo 3-1 Photograph of Hailesboro No. 3 Parking Area

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Photo 3-2 Photograph of Hailesboro No. 3 Canoe Put-in

## 3.8.7 ZOE 7 (Hailesboro No. 3 Bypassed Reach)

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		Document that the facility does not occupy lands or waters in	
		the designed ZOE to which public access can be granted and	
		that the facility does not otherwise impact recreational	
		opportunities in the facility area.	

The Hailesboro No. 3 bypassed reach is less than 200 feet long. No recreation facilities or access locations are provided at the bypassed reach, as the bypassed reach is short and narrow and does not offer recreation opportunities.

### **3.8.8 ZOE 8 (Hailesboro No. 3 Downstream)**

Criterion	Standard	Instructions	
Н	1	Not Applicable / De Minimis Effect	
		• Document that the facility does not occupy lands or waters in	
		the designed ZOE to which public access can be granted and	
		that the facility does not otherwise impact recreational	
		opportunities in the facility area.	

During the pre-filing consultation for the exemption, the exemptee established an agreement with the NYSDEC and the USFWS to provide a canoe put-in facilitate downstream of the Hailesboro No. 3 Project in order to complete a portage route around the entire Fowler-Hailesboro dam complex. However, the exemptee reported in a July 19, 2004 filing that safe public access downstream of the Hailesboro No. 3 Project could not be provided on its current property due to the existence of road culverts underneath River Street, some 200 feet downstream of the powerhouse.

July 19, 2004 Recreation Plan (Hailesboro No. 4 Project): Accession No. 20040720-0294

February 23, 2006 FERC Order Approving with Modification Recreation Plan (Hailesboro No. 4 Project):

Accession No. 20060223-4001

August 17, 2006 Updated Recreation Plan (Hailesboro No. 4 Project): Accession No. 20060817-0029

September 26, 2006 FERC Order Approving Updated Recreation Plan (Hailesboro No. 4 Project): Accession No. 20060926-3008

## 4.0 **REFERENCES**

- Carlson, D.M. 1992. Lower Oswegatchie River warm water stream survey. New York State Department of Environmental Conservation, Watertown, NY.
- Federal Energy Regulatory Commission (FERC). 2002. Order issuing subsequent license, minor project. Federal Energy Regulatory Commission. Washington, DC.
- Federal Energy Regulatory Commission (FERC). 2003. Order denying rehearing and amending subsequent licenses. Federal Energy Regulatory Commission. Washington, DC.
- New York State Department of Environmental Conservation (NYSDEC). 2022b. Endangered & Threatened Fishes of New York. Available Online: https://www.dec.ny.gov/animals/7008.html#:~:text=New%20York%20State's%20curr ent%20list,shiner%20(all%20special%20concern). [Access Date: October 14, 2022]
- New York State Department of Environmental Conservation (NYSDEC). 2022c. Species Status Assessment, Northern myotis (Myotis septentrionalis). Available Online: Species Assessment for Northern myotis (ny.gov). [Access Date: October 17, 2022]
- New York State Department of Environmental Conservation (NYSDEC). 2022d. St. Lawrence River Watershed. Available Online: St. Lawrence River Watershed - NYS Dept. of Environmental Conservation.[Accessed: October 17, 2022]
- United State Fish and Wildlife Service (USFWSa). 2022. Information for Planning and Consultation (IPaC) List. Hailesboro Projects, St. Lawrence County, New York. Available online: https://ipac.ecosphere.fws.gov/. [Access Date October 14, 2022]
- United State Fish and Wildlife Service (USFWS). 2022b. Monarch Butterfly (Danaus plexippus). Available online: https://ecos.fws.gov/ecp/species/9743. Access Date [October 14, 2022]

## 5.0 CONTACTS FORMS

## 5.1 Applicant Contact Information

Project Owner:			
Name and Title	Matthew Stanley, VP & General Manager		
Company	Central Rivers Power, LLC		
Phone	603-554-2656		
Email Address	mstanley@centralriverspower.com		
Mailing Address	670 N. Commercial St., Ste 204, Manchester, NH 03101		
Consulting Firm /	Agent for LIHI Program (if different from above):		
Name and Title	Catherine Russell		
Company	HDR Engineering, Inc.		
Phone	207-239-3792		
Email Address	Cate.Russell@hdrinc.com		
Mailing Address	970 Baxter Blvd, Suite 301, Portland, ME 04103		
<b>Compliance Conta</b>	ct (responsible for LIHI Program requirements):		
Name and Title	Curt Mooney, Manager, Regulatory Compliance		
Company	Central Rivers Power, LLC		
Phone	603.744.0846		
Email Address	cmooney@centralriverspower.com		
Mailing Address	670 N. Commercial St., Ste 204, Manchester, NH 03101		
Party responsible	for accounts payable:		
Name and Title	Stacey Blair, AP Manager		
Company	Central Rivers Power, LLC		
Phone	978-604-0920		
Email Address	accounting@centralriverspower.com		
Mailing Address	670 N. Commercial St., Ste 204, Manchester, NH 03101 (do not mail		
	– please email only)		

	Area of Responsibility	
Agency Name	New York Natural Heritage Program	□ Flows
Name and Title		Water Quality
Phone	518.402.8935	🛛 Fish/Wildlife
Email address	NaturalHeritage@dec.ny.gov	$\Box$ Watershed
Mailing	New York Natural Heritage Program	🖾 T & E Species
Address	625 Broadway, 5 <sup>th</sup> Floor	Cultural/Historic
	Albany, NY 12233	Recreation

## 5.2 State, Federal, Provincial, and Tribal Resource Agency Contacts

	Agency Contact	Area of Responsibility
Agency Name	New York State Department of Environmental	⊠ Flows
	Conservation	🛛 Water Quality
Name and Title	Christopher Balk	🛛 Fish/Wildlife
Phone	315-785-2245	$\boxtimes$ Watershed
Email address	Christopher.Balk@dec.ny.gov	🖾 T & E Species
Mailing	New York State Department of Environmental	Cultural/Historic
Address	Conservation, Region 6	$\Box$ Recreation
	317 Washington Street	
	Watertown, NY 13601-3787	

	Agency Contact	Area of Responsibility
Agency Name	U.S. Fish and Wildlife Service	⊠ Flows
Name and Title	John Wiley, Fish and Wildlife Biologist	🛛 Water Quality
Phone	607-753-9334	🛛 Fish/Wildlife
Email address	John_wiley@fws.gov	⊠ Watershed
Mailing	U.S. Fish and Wildlife Service	🖾 T & E Species
Address	3817 Luker Road	□ Cultural/Historic
	Cortland, NY 13045	□ Recreation

Agency Contact		Area of Responsibility
Agency Name	New York State Historic Preservation Office	□ Flows
Name and Title	Daniel McEneny, Division Director	Water Quality
Phone	518-268-2162	Fish/Wildlife
Email address	Daniel.McEneny@parks.ny.gov	$\Box$ Watershed
Mailing	OPRHP	🗆 T & E Species
Address	PO Box 189	⊠ Cultural/Historic
	Waterford, NY 12188	□ Recreation

# 6.0 SWORN STATEMENT

As an Authorized Representative of Central Rivers Power LLC, the Undersigned attests that the material presented in the application is true and complete.

The Undersigned acknowledges that the primary goal of the Low Impact Hydropower Institute's certification program is public benefit, and that the LIHI Governing Board and its agents are not responsible for financial or other private consequences of its certification decisions.

The Undersigned further acknowledges that if LIHI Certification of the applying facilities is granted, the LIHI Certification Mark License Agreement must be executed prior to marketing the electricity product as LIHI Certified<sup>®</sup>.

The Undersigned further agrees to hold the Low Impact Hydropower Institute, the Governing Board and its agents harmless for any decision rendered on this or other applications, from any consequences of disclosing or publishing any submitted certification application materials to the public, or on any other action pursuant to the Low Impact Hydropower Institute's certification program.

Company Name: Central Rivers Power, LLC
Authorized Representative:
Name: Matthew Stanley
Title: VP & General Manager
Authorized Signature:
Date:

## **ATTACHMENT A**

## **AGENCY CONSULTATION**
### **Russell, Cate**

From:	Russell, Cate
Sent:	Thursday, November 3, 2022 9:15 AM
То:	christopher.balk@dec.ny.gov
Cc:	Gibson, Jim; Curtis Mooney; Skip Medford
Subject:	WQCs for Hailesboro No. 3, 4, 6 Projects re: LIHI Application

Good Morning Chris,

Hydro Development Acquisition Group, LLC (HDGA), a subsidiary of Central Rivers Power, LLC is applying for Low Impact Hydropower Institute (LIHI) certification for the Hailesboro No. 3 Hydroelectric Project (FERC No. 5633), Hailesboro No. 4 Hydroelectric Project (FERC No. 6058), and Hailesboro No. 6 Hydroelectric Project (FERC No. 3181) located on the Oswegatchie River in St. Lawrence County, New York.

The Hailesboro No. 4 Project is operated in compliance with the Water Quality Certificate (WQC) issued by the NYSDEC on December 21, 2001 and the FERC License issued on October 30, 2022. The Hailesboro No. 3 and No. 6 Projects are operate under the WQCs issued by the NYSDEC and the FERC Exemptions issued on July 14, 1982 and September 17, 1981, respectively. All three Projects are operated in run-of-river mode.

HDGA is undergoing a certification process through the Low Impact Hydropower Institute (LIHI) to obtain renewable energy credits for the Projects. As part of this process, HDGA must consult with NYSDEC to confirm that the terms and conditions set forth in the WQCs are still valid and in effect. By way of this communication, HDGA requests NYSDEC's confirmation of this.

Thank you in advance for your assistance, and if you have any questions, please do not hesitate to contact me at (207) 239-3792 or by email at <u>cate.russell@hdrinc.com</u>.

#### **Cate Russell**

Associate, Regulatory and Environmental Section Manager HDR 970 Baxter Blvd, Suite 301 Portland, ME 04103 D 207.239.3792 M 617.803.2733 cate.russell@hdrinc.com

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Application for Low Impact Hydropower Institute Certification Hailesboro No. 3 Hydroelectric Project (FERC No. 5633) Hailesboro No. 4 Hydroelectric Project (FERC No. 6058) Hailesboro No. 6 Hydroelectric Project (FERC No. 3181)

### **ATTACHMENT B**

### 2022 USFWS INFORMATION FOR PLANNING AND CONSULTATIONS (IPAC)

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

### Location

St. Lawrence County, New York



## Local office

New York Ecological Services Field Office

- **\$** (607) 753-9334
- 💼 (607) 753-9699
- ✓ <u>fw5es\_nyfo@fws.gov</u>

IPaC: Explore Location resources

3817 Luker Road Cortland, NY 13045-9385

NOTFORCONSULTATION

# Endangered species

# This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

 Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ). 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

### Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/9045</u>	Threatened
Insects NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty  $Act^{1}$  and the Bald and Golden Eagle Protection  $Act^{2}$ .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

1. The Migratory Birds Treaty Act of 1918.

<sup>2.</sup> The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>https://www.fws.gov/program/migratory-birds/species</u>
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Belted Kingfisher Megaceryle alcyon This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9399</u>	Breeds May 15 to Oct 10
<b>Chimney Swift</b> Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

Breeds May 1 to Jul 20

Golden-winged Warbler Vermivora chrysoptera This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8745</u>

Breeds May 10 to Aug 31

Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

## **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted
- Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (–)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



# Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

# What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge</u> <u>Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

# What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and</u> <u>citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data</u> <u>Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird</u> <u>Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAO "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local <u>Ecological Services Field Office</u> or visit the <u>CBRA</u> <u>Consultations website</u>. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

### There are no known coastal barriers at this location.

### Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the <u>official CBRS maps</u>. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <u>https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation</u>

### Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact <u>CBRA@fws.gov</u>.

# Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

# Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

### Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also

#### IPaC: Explore Location resources

been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Application for Low Impact Hydropower Institute Certification Hailesboro No. 3 Hydroelectric Project (FERC No. 5633) Hailesboro No. 4 Hydroelectric Project (FERC No. 6058) Hailesboro No. 6 Hydroelectric Project (FERC No. 3181)

### **A**TTACHMENT **C**

### **REFERENCE DOCUMENTS**

401.S.1

NYS Department of Environmental Conservation Division of Regulatory Affairs 317 Washington Street Watertown, NY 13601-3787 315-785-2245



Langdon Marsh Acting Commissioner

April 4, 1994

Mr. Mark Quallen, President Hydro Development Group PO Box 58 Dexter, New York 13634

#### **RE:** Water Quality Certifications

Dear Mr. Quallen:

This Department has reviewed all files which note that Hydro Development Group is an entity in the ownership or operation of hydroelectric facilities located in Region 6. These facilities include Dexter, Theresa, Diamond Island, Copenhagen, Hailsboro 3, 4, and 6, Fowler 7, Pyrites, Port Leyden, Rock Island and Denley. Region 6 is composed of the Counties of Herkimer, Jefferson, Lewis, Oneida and St. Lawrence.

Based upon that review, it is noted that a Water Quality Certification, under Section 401 of the Clean Water Act of 1977, has been issued for all of Hydro Development Group's facilities. Also based on the review, as of this date, it is shown that all of the facilities are being operated within the conditions set forth in each Certificate.

Sincerely yours.

C. Randy Vaa's Regional Supervisor of Regulatory Affairs Region 6

CRV:dmt

Project No. 6058-005

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Appendix A

### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION WATER QUALITY CERTIFICATION Hailesboro #4 Project (FERC No. 6058-005)

The New York State Department of Environmental Conservation ("Department" or "NYS DEC") hereby certifies:

- ! the Department has reviewed the certificate holder's Application for Federal Hydroelectric License (hereafter referred to as "the Application") and all other available pertinent information, including studies submitted in support of the application;
- ! the project will comply with Sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act as amended and as implemented by the limitations, standards and criteria of the state statutory and regulatory requirements set forth in 6NYCRR Section 608.9(a); and
- ! the project will comply with applicable New York State effluent limitations, water quality standards and thermal discharge criteria set forth in 6NYCRR Parts 700-706.

Water Quality Certification is issued pursuant to Section 401 of the Federal Water Pollution Control Act (33 USC 1341).

**CONTACTS:** Except as otherwise specified, all contacts with the Department concerning this certificate shall be addressed to:

New York State Department of Environmental Conservation Regional Permit Administrator 317 Washington Street Watertown, NY 13601

Written submissions to the Department must include five (5) complete copies of the submission.

### **SPECIAL CONDITIONS**

### A. OVERSIGHT AND ADMINISTRATION

Project No. 6058-005 - 28-

- 1. <u>Inspections:</u> The project, including relevant records, is subject to inspection at reasonable hours and intervals, upon reasonable notice to the certificate holder, by an authorized representative of the Department to determine whether the applicant is complying with this certification. A copy of this certification and the FERC license, including all maps, drawings, and special conditions, must be available for inspection by the Department during such inspections at the project.
- 2. <u>Emergencies:</u> For activities carried out at the project(s) in response to an emergency, the following procedures apply:

Prior to commencement of emergency activities, the NYS DEC must be notified and must determine whether to grant approval. If circumstances require that emergency activities be taken immediately such that prior notice to the NYS DEC is not possible, then the NYS DEC must be notified by he Certificate Holder(s) within 24 hours of commencement of the emergency activities. In either case, notification must be by certified mail, telegram, or other written form of communication, including fax and electronic mail. This notification must be followed within 3 weeks by submission of the following information:

(1) a description of the action;

- (2) location map and plan of the proposed action;
- (3) reasons why the situation is an emergency.

All notifications, requests for emergency authorizations and information submitted to support such requests shall be sent to the Regional Permit Administrator at the address listed above.

3. <u>Modifications and Revocations:</u> The DEC reserves the right to modify or revoke this certificate when:

 the scope of the authorized activity is exceeded or a violation of any condition of this certificate or provisions of the ECL and pertinent regulation is found;
the certificate was obtained by misrepresentation or failure to disclose relevant facts;

3) new material information is discovered;

4) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the certificate was issued.

### **B. OPERATING CONDITIONS**

4. <u>Project Operation:</u> Project Operation shall be in accordance with the **Application** for New License, Hailesboro #4 Hydroelectric Project, FERC Project No. Project No. 6058-005 - 29-

**6058-NY, dated December 2000**. The project shall operate in a run of river mode of operation where inflow to the project impoundment is equal to outflow from the project. There shall be an active storage volume of zero.

- 5. <u>Minimum Flows to Bypassed Reaches:</u> The Certificate holder shall provide a continuous release to the bypassed reach. The minimum quantity to be released to the bypassed reach below dam #1 shall be 20 cfs. The minimum quantity to be released to the bypassed reach below dam #2 shall be 8 cfs. The minimum quantity to be released below dams #1 and #2 must be equal to the inflow into the impoundment (inflow) when that is less than 28 cfs. During Walleye spawning season, which is defined as beginning when water temperatures reach 4° C. for 4 consecutive days after March 15 and continuing until 30 days after water temperature reached 10° C, an additional 77 cfs must be released when the combined spillage and minimum flow release falls below 105 cfs.
- 6. <u>Fish Protection</u>: Fish protection provisions shall be provided in accordance with the application.
- 7. <u>Flow Monitoring:</u> The certificate holder shall monitor flows as described below. The certificate holder shall install all necessary gages and/or equipment for the purpose of:
  - a. determining project flows through the bypass/diversion reach, and;
  - b. determining project headpond elevation, and;
  - c. determining flows in the river below the project.

The certificate holder shall keep accurate records of the foregoing flow data and shall provide such data in a format and interval as the Department may request.

In addition, permanent staff gauges or other visual markers shall be installed to provide independent verification of headpond elevation and base and bypass flows.

### 8. <u>Impoundment Fluctuations</u>:

The impoundment shall not be drawn down more than 3 inches below the top of the flashboards, or top of crest when flashboards are not in. This condition may be modified temporarily by emergencies beyond the control of the certificate holder, or for short periods upon agreement with the Department. The Department must be notified within 24 hours of any emergency situations.

### C. PROJECT MAINTENANCE AND CONSTRUCTION

Project No. 6058-005 - 30-

note: All matters pertaining to "Project Maintenance and Construction" shall be addressed to:

Regional Permit Administrator New York State Department of Environmental Conservation 317 Washington Street Watertown, New York 13601

- 9. <u>Maintenance Dredging:</u> The certificate holder shall install and maintain appropriate turbidity control structures while conducting any maintenance dredging activities in the Oswegatchie River.
- 10. <u>Sediment Analysis and Disposal:</u> The certificate holder must sample any sediments to be disturbed or removed from the project waters and test them for contaminants. Sampling and testing shall be accomplished according to a protocol submitted to and approved by the Department prior to sampling.

Prior to dredging or other excavation, the certificate holder must secure Department approval for all disposal locations for any sediments to be removed from the project waters.

- 11. <u>Erosion and Sediment Control:</u> The certificate holder shall ensure that the following erosion and sediment controls measures, at minimum, are adhered to during routine maintenance and construction that may result in sediments and/or contaminants entering the Oswegatchie River.
  - a. Isolate in-stream work from the flow of water and prevent discolored (turbid)discharges and sediments caused by excavation, dewatering and construction activities from entering the waters of the Oswegatchie River;
  - b. Prohibit heavy construction equipment from operating below the mean high water level of the Oswegatchie River until the work area is protected by an appropriate turbidity control structure;
  - c. Minimize soil disturbance, grade so as to prevent or minimize erosion and provide temporary and permanent stabilization of all disturbed areas and stockpiles to minimize the potential for erosion and sedimentation within the Oswegatchie River;
  - d. Protect all waters from contamination by deleterious materials such as wet concrete, gasoline, solvents, epoxy resins or other materials used in construction, maintenance and operation of the Project.

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- e. Install and maintain erosion control structures on the down slope of all disturbed areas to prevent eroded material from entering the Oswegatchie River. Erosion control structures must be installed before commencing any activities involving soil disturbance and all erosion control structures must be maintained in a fully functional condition;
- f. Ensure complete removal of all dredged/excavated material and construction debris from the bed and banks of the Oswegatchie River;
- g. Ensure that all temporary fill and other materials placed in the waters of the Oswegatchie River are completely removed immediately upon completion of construction, unless otherwise directed by the Department.
- 12. Placement of cofferdams, construction of temporary access roads or ramps, or other temporary structures which encroach upon the bed or banks of the Oswegatchie River: The design of all such structures must be approved by the Department prior to installation.

a. All fish trapped within the confines of a cofferdam during the dewatering process shall be immediately captured and returned alive and unharmed to unrestricted waters adjoining the containment area.

- 13. <u>Construction Drawdowns:</u> Whenever construction and/or maintenance activities require lowering the water level of the Project's impoundments below normal operating limits, the water level shall not be drawn down more than 1 foot per hour. During refill of the impoundment, 50% of inflow to the impoundment shall be released to the river, and 50% shall be used to refill the impoundment.
- 14. <u>River Flow:</u> During any period of maintenance and/or construction activity, the certificate holder shall continuously maintain adequate flows immediately downstream of work sites as provided for in this certificate.
- 15. <u>Turbidity Monitoring:</u> During maintenance or construction-related activities in or near the Oswegatchie River, the certificate holder will monitor the turbidity of project waters at a point immediately upstream of the work area and at a point no more than 100 feet downstream from the work area. The certificate holder specifically agrees that if, at any time, turbidity measurements from the downstream locations exceed background, the measurements from the upstream locations, all related construction on the project will cease until the source of the turbidity is discovered and remediated such that turbidity is returned to a preconstruction condition.

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16. <u>Notifications:</u> The Regional Permit Administrator must be notified in writing at least two weeks prior to commencing any work performed under the authority of this certificate.

### **D. PUBLIC ACCESS**

- 17. The following recreational improvements will be provided; subject to Department review and approval.
  - a) canoe portage route around the dam.
  - b) shoreline access for fishing commensurate with safety concerns and land ownership constraints.