

Oswegatchie River Hydroelectric Project

Certification Application to the Low Impact Hydropower Institute

FERC Project No. 2713



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INTRODUCTION

Erie Boulevard Hydropower, L.P. (Erie), a wholly owned subsidiary of Brookfield Renewable, is providing this application to the Low Impact Hydropower Institute (LIHI) for certification of the Oswegatchie River Project. The Oswegatchie River Project consisting of the Browns Falls, Flat Rock, South Edwards, Oswegatchie, Heuvelton, and Eel Weir developments on the Oswegatchie River. All the developments are within St. Lawrence County. The six developments are licensed with the Federal Energy Regulatory Commission (FERC) as the Oswegatchie River Project (FERC No. 2713).

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PART I. FACILITY DESCRIPTION

The key features of the Oswegatchie River Hydroelectric Project are described in Table 1.

Table I-1. Facility Description Information for the Browns Falls Development.

Item	Information Requests	Response (and references to further details)
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>Browns Falls Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Fine and Clifton, St. Lawrence County, New York
	River mile of dam above next major river	96.9
	Geographic latitude of dam	44.213
	Geographic longitude of dam	-75.037
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8,

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	amendments.	2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.
	Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
Powerhouse	Date of initial operation (past or future for pre-operational applications)	1923
	Total installed capacity (MW)	<p>Oswegatchie River Project:</p> <p><i>Browns Falls Development: 15.00 MW</i></p> <p><i>Flat Rock Development: 5.07 MW</i></p> <p><i>South Edwards Development: 2.92 MW</i></p> <p><i>Oswegatchie Development: 2.07 MW</i></p> <p><i>Heuvelton Development: 1.04 MW</i></p> <p><i>Eel Weir Development: 2.46 MW</i></p> <p>Total Installed Capacity: 28.56 MW</p>
	Average annual generation (MWh) and period of record used	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below.</p> <p>Oswegatchie River Project:</p> <p><i>Browns Falls Development: 55,741 MWh</i></p> <p><i>Flat Rock Development: 16,095 MWh</i></p> <p><i>South Edwards Development: 17,249 MWh</i></p> <p><i>Oswegatchie Development: 8,080 MWh</i></p> <p><i>Heuvelton Development: 4,424 MWh</i></p> <p><i>Eel Weir Development: 8,822 MWh</i></p> <p>Total Annual Generation: 110,411 MWh</p>
	Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)	The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking

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		facilities, and the two downstream developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.
	Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit	<p>Generating Units: 2</p> <ul style="list-style-type: none"> • Type: vertical Francis turbines • Description: Design capacity of 11,500 HP at design head of 260 feet and a speed of 360 rpm (each) • Maximum Capacity: 440 cfs (each) • Minimum Capacity: 187 cfs (each) <p>Generators: 2 Identical direct-connected, General Electric, 3-phase, 60-cycle alternating current, synchronous generators.</p> <p>Nameplate rating: 8.0 MW each</p> <p>Description: 9.375 MVA, 360 rpm, 0.8 PF, 6,600 volts, and 820 amperes.</p>
	Trashrack clear spacing (inches), for each trashrack	Browns Falls currently has trashracks with 2.5 inch clear spacing. 1-inch spaced racks will be installed by December 31, 2023.
	Dates and types of major equipment upgrades	There have been no major equipment upgrades regarding the power plant.
	Dates, purpose, and type of any recent operational changes	There have been no recent operational changes regarding the power plants.
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	There are no plans or regulatory activities for upgrades regarding the power plants.
<i>Dam or Diversion</i>	Date of original construction and description and dates of subsequent dam or diversion structure modifications	1913 – original construction
	Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.	Dam Height: 69 feet Flashboards: 2 feet
	Spillway elevation and hydraulic capacity	Spillway Elevation: 1,347 feet msl Hydraulic Capacity: 8,000 cfs 1,352 feet (the top of the non-overflow structures)
	Tailwater elevation (provide normal range if available)	1,080 – 1,084 feet msl

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	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed from the dam to the powerhouse via two 8-foot-diameter, 142-foot-long steel penstocks.
	Dates and types of major infrastructure changes	The major improvements are listed as follows: 1976 – 3,600 feet of old wood stave pipeline was replaced with welded steel pipe 2008 – Timber parapet wall was constructed atop right non-overflow structure and right abutment.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at: RM 95.6
Conduit	Date of conduit construction and primary purpose of conduit	1913 The primary purpose of the conduits is power production.
Impoundment and Watershed	Authorized maximum and minimum water surface elevations	1,349.0 ft maximum; 1,343.0 ft minimum
	Normal operating elevations and normal fluctuation range	1,349.0 ft maximum; 1,345.0 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 3,234 acre-feet Surface Area: 168 acres
	Usable storage volume and surface area	Usable Volume: 882 acre-feet Surface Area: 168 acres
	Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.	The Browns Falls Development operates with a 4.0-foot drawdown limit measured in the downward direction from top of crest of spillway (1,347 feet msl) or flashboards (1,349 feet msl) from July 15 through March 14 and 2.0-foot drawdown limit from March 15 through July 14. A minimum flow of 30 cfs is provided to the bypassed reach.

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<p>Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.</p>	<p>Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0</p> <p>Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6</p> <p>Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1</p> <p>* Downstream fish passage is provided at the Upper Newton and Lower Newton developments.</p>
<p>Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage</p>	<p><i>Flat Rock Development, Erie Boulevard Hydropower, P-2713, RM 94.1</i></p> <p><i>South Edwards, Erie Boulevard Hydropower, P-2713, RM 87.1</i></p> <p><i>Oswegatchie Development, Erie Boulevard Hydropower, LP, P-2713, RM 86.6</i></p> <p>Talcville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p> <p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p> <p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p><i>Heuvelton Development, Erie Boulevard Hydropower, LP, P-2713, RM 12</i></p>

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		<p><i>Eel Weir Development, Erie Boulevard Hydropower, LP, P-2713, RM 5.1</i></p> <p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* Upstream fish passage is provided at the Heuvelton and Eel Weir developments</p>
	<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p> <p>The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie’s other hydroelectric facilities on the Oswegatchie River.</p>
	<p>Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.</p>	<p>The FERC project boundary covers 551.9 acres (375.3 acres of land and 176.6 acres of water).</p>
<p><i>Hydrologic Setting</i></p>	<p>Average annual flow at the dam, and period of record used</p>	<p>The approximately average annual flow at the Browns Falls Development based on flow data through 1925 though 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY is 365 cfs.</p>
	<p>Average monthly flows and period of record used</p>	<p>The approximate average monthly flows at the Browns Falls Development based on flow data through 1925 through 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY are as follows: January – 371 cfs February – 371 cfs March – 506 cfs April – 691 cfs May – 523 cfs</p>

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		<p>June – 294 cfs July – 242 cfs August – 224 cfs September – 236 cfs October – 263 cfs November – 311 cfs December – 315 cfs</p>
	Location and name of closest stream gauging stations above and below the facility	USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY (located downstream of the Flat Rock Development)
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	<p>178 square miles</p> <p>Daily mean flow data for the Browns Falls Development was estimated by a linear proration of data from USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY.¹</p>
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the Browns Falls Development (See Appendix A).
	Upstream and downstream locations by river miles	<p>Zone 1: 96.9 to 98.9 Zone 2: 95.5 to 96.9 Zone 3: 95.5 to 95.6</p>
	Type of waterbody (river, impoundment, by-passed reach, etc.)	<p>Zone 1: Impoundment Zone 2: Bypass Zone 3: River</p>
	Delimiting structures or features	<p>Zone 1: From the head of the impoundment, downstream approximately 2.0 miles to the dam. Zone 2: Dam, downstream bypassed reach approximately 1.4 miles. Zone 3: Powerhouse, downstream approximately 0.1 miles to the Flat Rock impoundment.</p>
	Designated uses by state water quality agency	The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The

¹ Ries, K.G. and Friesz, P.J. 2000. Methods for Estimating Low-Flow Statistics for Massachusetts Streams. Water Resources Investigations Report 00-4135. U.S. Department of Interior. U.S. Geological Survey.

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		<p>Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters.</p> <p>Link to NYSDEC Classification Codes: <u>https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)</u></p>
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Table I-2. Facility Description Information for the Flat Rock Development.

Item	Information Requests	Response (and references to further details)
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>Flat Rock Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Fine, St. Lawrence County, New York
	River mile of dam above next major river	94.1
	Geographic latitude of dam	44.221
	Geographic longitude of dam	-75.074
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8, 2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.

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	<p>Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories</p>	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
<p>Powerhouse</p>	<p>Date of initial operation (past or future for pre-operational applications)</p>	<p>1924</p>
	<p>Total installed capacity (MW)</p>	<p>Oswegatchie River Project: <i>Browns Falls Development: 15.00 MW</i> <i>Flat Rock Development: 5.07 MW</i> <i>South Edwards Development: 2.92 MW</i> <i>Oswegatchie Development: 2.07 MW</i> <i>Heuvelton Development: 1.04 MW</i> <i>Eel Weir Development: 2.46 MW</i> Total Installed Capacity: 28.56 MW</p>
	<p>Average annual generation (MWh) and period of record used</p>	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below. Oswegatchie River Project: <i>Browns Falls Development: 55,741 MWh</i> <i>Flat Rock Development: 16,095 MWh</i> <i>South Edwards Development: 17,249 MWh</i> <i>Oswegatchie Development: 8,080 MWh</i> <i>Heuvelton Development: 4,424 MWh</i> <i>Eel Weir Development: 8,822 MWh</i> Total Annual Generation: 110,411 MWh</p>
	<p>Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)</p>	<p>The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking facilities, and the two downstream developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.</p>

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	<p>Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit</p>	<p>Flat Rock Development Generating Units: 2</p> <ul style="list-style-type: none"> • Type: vertical Francis turbines • Description: Unit 2 Design capacity of 4,000 HP at design head of 58 feet and a speed of 180 rpm (each) Unit 1 Design capacity of 2,800 HP at design head of 57.5 (replacement turbine derated to pass minimum flow). • Maximum Capacity: <ul style="list-style-type: none"> ○ Unit 1: 478 cfs ○ Unit 2: 745 cfs • Minimum Capacity: <ul style="list-style-type: none"> ○ Unit 1: 100 cfs ○ Unit 2: 180 cfs <p>Generators: 2 Direct-connected, General Electric, 3-phase, 60-cycle, alternating current, synchronous generators.</p> <p>Nameplate ratings: 3.0 MW</p> <p>Description: 3.75 MVA, 0.8 PF, 2,300 volts, 943 amperes, and 180 rpm.</p>
	<p>Trashrack clear spacing (inches), for each trashrack</p>	<p>Flat Rock currently has trashracks with 2.5 inch clear spacing on half of the installed racks (unit No. 1 only); whereas the trashracks for Unit No. 2 have 1-inch clear spacing. 1-inch spaced racks will be installed on unit No. 1 by December 31, 2023.</p>
	<p>Dates and types of major equipment upgrades</p>	<p>There have been no major equipment upgrades regarding the power plant.</p>
	<p>Dates, purpose, and type of any recent operational changes</p>	<p>There have been no recent operational changes regarding the power plants.</p>
	<p>Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments</p>	<p>There are no plans or regulatory activities for upgrades regarding the power plants.</p>
<p><i>Dam or Diversion</i></p>	<p>Date of original construction and description and dates of subsequent dam or diversion structure modifications</p>	<p>1924 – original construction</p>

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	Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.	Dam Height: 70 feet Flashboards: N/A
	Spillway elevation and hydraulic capacity	Spillway Elevation: 1,080 feet msl Hydraulic Capacity: 12,000 cfs at 1,086.0 feet (the top of the left non-overflow structures)
	Tailwater elevation (provide normal range if available)	1,019.5 – 1,024 feet msl
	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed through a 66-foot-long intake section on the west side of the spillway.
	Dates and types of major infrastructure changes	The major improvements are listed as follows: 1991 - The dam underwent rehabilitation which included concrete surface repairs on the downstream face of the west non-overflow structure and the downstream wall of the powerhouse at the generator floor level. 2001 - The right dike was raised by installing a timber parapet.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at RM 94.1
Conduit	Date of conduit construction and primary purpose of conduit	1924 The primary purpose of the conduits is power production.
Impoundment and Watershed	Authorized maximum and minimum water surface elevations	1,080.0 ft maximum; 1,076.0 ft minimum
	Normal operating elevations and normal fluctuation range	1,080.0 ft maximum; 1,076.0 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 2,646 acre-feet Surface Area: 159 acres
	Usable storage volume and surface area	Usable Volume: 2,509 acre-feet Surface Area: 159 acres

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<p>Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.</p>	<p>The Flat Rock Development operates with a 4.0-foot drawdown limit measured in downward direction from top of crest of spillway (1,080 feet msl) from July 15 through March 14 and 2.0-foot drawdown limit from March 15 through July 14. A base flow of 160 cfs or inflow, whichever is less, is provided downstream of the development.</p>
<p>Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.</p>	<p>Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0</p> <p>Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6</p> <p>Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1</p> <p>Browns Falls Development, Erie Boulevard Hydropower, P-2713, RM 96.9</p> <p>* Downstream fish passage is provided at the Upper Newton and Lower Newton developments.</p>
<p>Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage</p>	<p>South Edwards, Erie Boulevard Hydropower, P-2713, RM 87.1</p> <p>Oswegatchie Development, Erie Boulevard Hydropower, LP, P-2713, RM 86.6</p> <p>Talville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p> <p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p>

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		<p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p>Heuvelton Development, Erie Boulevard Hydropower, LP, P-2713, RM 12</p> <p>Eel Weir Development, Erie Boulevard Hydropower, LP, P-2713, RM 5.1</p> <p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* Upstream fish passage is provided at the Heuvelton and Eel Weir developments.</p>
	<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p> <p>The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie's other hydroelectric facilities on the Oswegatchie River.</p>
	<p>Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.</p>	<p>The Flat Rock Development FERC project boundary covers 206 acres (46.5 acres of land and 159.5 acres of water).</p>
<p>Hydrologic Setting</p>	<p>Average annual flow at the dam, and period of record used</p>	<p>The approximately average annual flow at the Flat Rock Development based on flow data through 1925 though 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY is 531 cfs.</p>
	<p>Average monthly flows and period of record used</p>	<p>The approximate average monthly flows at the Flat Rock Development based on flow</p>

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		<p>data through 1925 through 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY are as follows:</p> <p>January – 540 cfs February – 539 cfs March – 736 cfs April – 1,005 cfs May – 762 cfs June – 428 cfs July – 352 cfs August – 326 cfs September – 344 cfs October – 383 cfs November – 453 cfs December – 458 cfs</p>
	Location and name of closest stream gauging stations above and below the facility	USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY (located downstream of the Flat Rock Development)
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	<p>262 square miles</p> <p>Average annual and monthly flow for the Oswegatchie River Project was estimated without proration of daily mean flows for river conditions at the USGS gage locations.</p>
Designated Zones of Effect	Number of zones of effect	There are two zones of effect at the Flat Rock Development (See Appendix A).
	Upstream and downstream locations by river miles	<p>Zone 4: 94.1 to 95.5</p> <p>Zone 5: 91.5 to 94.1</p>
	Type of waterbody (river, impoundment, by-passed reach, etc.)	<p>Zone 4: Impoundment</p> <p>Zone 5: River</p>
	Delimiting structures or features	<p>Zone 4: From the head of the impoundment, downstream approximately 1.4 miles to the dam.</p> <p>Zone 5: Powerhouse, downstream approximately 2.6 miles to the Welch Creek.</p>
	Designated uses by state water quality agency	The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The

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		<p>Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters.</p> <p>Link to NYSDEC Classification Codes: <u>https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)</u></p>
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Table I-3. Facility Description Information for the South Edwards Development.

<i>Item</i>	<i>Information Requests</i>	<i>Response (and references to further details)</i>
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>South Edwards Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Edwards and Fine, St. Lawrence County, New York
	River mile of dam above next major river	87.1
	Geographic latitude of dam	44.266
	Geographic longitude of dam	-75.192
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8, 2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.

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	<p>Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories</p>	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
Powerhouse	Date of initial operation (past or future for pre-operational applications)	1914
	Total installed capacity (MW)	<p>Oswegatchie River Project:</p> <p><i>Browns Falls Development: 15.00 MW</i></p> <p><i>Flat Rock Development: 5.07 MW</i></p> <p><i>South Edwards Development: 2.92 MW</i></p> <p><i>Oswegatchie Development: 2.07 MW</i></p> <p><i>Heuvelton Development: 1.04 MW</i></p> <p><i>Eel Weir Development: 2.46 MW</i></p> <p>Total Installed Capacity: 28.56 MW</p>
	Average annual generation (MWh) and period of record used	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below.</p> <p>Oswegatchie River Project:</p> <p><i>Browns Falls Development: 55,741 MWh</i></p> <p><i>Flat Rock Development: 16,095 MWh</i></p> <p><i>South Edwards Development: 17,249 MWh</i></p> <p><i>Oswegatchie Development: 8,080 MWh</i></p> <p><i>Heuvelton Development: 4,424 MWh</i></p> <p><i>Eel Weir Development: 8,822 MWh</i></p> <p>Total Annual Generation: 110,411 MWh</p>
	Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)	The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking facilities, and the two downstream

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	<p>Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit</p>	<p>developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.</p> <p>Generating Units: 4</p> <ul style="list-style-type: none"> • Type: <ul style="list-style-type: none"> ○ Units 1 & 2: horizontal double Francis turbines ○ Unit 3: horizontal Francis turbine ○ Unit 4: submersible turbine (minimum-flow unit) • Description: <ul style="list-style-type: none"> ○ Units 1 & 2: Design capacity of 1,725 HP at design head of 83 feet and a speed of 514 rpm (each) ○ Unit 3: Design capacity of 950 HP at design head of 80 feet and a speed of 450 rpm ○ Unit 4: Design capacity of 343 HP at design head of 53 feet and a speed of 725 rpm • Maximum Capacity: <ul style="list-style-type: none"> ○ Units 1 & 2: 232 cfs (each) ○ Unit 3: 221 cfs ○ Unit 4: 60 cfs • Minimum Capacity: <ul style="list-style-type: none"> ○ Units 1 & 2: 80 cfs (each) ○ Unit 3: 70 cfs ○ Unit 4: 60 cfs <p>Generators: 3</p> <p>Units 1 & 2:</p> <ul style="list-style-type: none"> • Direct-connected, General Electric, 3-phase, 60-cycle alternating current, synchronous generators. • Nameplate rating: 1.0 MW (each) • Description: 125 MVA, 0.8 PF, 2,200 volts, 328 amperes, and 514 rpm. <p>Unit 3:</p> <ul style="list-style-type: none"> • Direct-connected General Electric, 3-phase, 60-cycle alternating current, synchronous generator. • Nameplate rating: 0.68 MW
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		<ul style="list-style-type: none"> Description: 0.85 MVA, 0.8 Power Factor, 2,300 volts, 213 amperes, and 450 rpm.
	Trashrack clear spacing (inches), for each trashrack	South Edwards currently has trashracks with 2.5 inch clear spacing. 1-inch spaced racks will be installed by December 31, 2023.
	Dates and types of major equipment upgrades	There have been no major equipment upgrades regarding the power plant.
	Dates, purpose, and type of any recent operational changes	There have been no recent operational changes regarding the power plants.
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	There are no plans or regulatory activities for upgrades regarding the power plants.
Dam or Diversion	Date of original construction and description and dates of subsequent dam or diversion structure modifications	1914 – original construction
	Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.	Dam Height: 48 feet Flashboards: 2 feet
	Spillway elevation and hydraulic capacity	Spillway Elevation: 843.2 feet msl Hydraulic Capacity: 5,104 cfs at elevation 848.6 feet (the top of the flashboards at the dikes)
	Tailwater elevation (provide normal range if available)	761.7 – 762.2 feet msl
	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed from the dam to the powerhouse via a 46-foot-long, 33.5-foot-high gated intake structure.
	Dates and types of major infrastructure changes	The major improvements are listed as follows: 1975 - The existing steel pipeline was replaced with a 10-foot diameter reinforced fiberglass pipeline and an air-valve house and concrete anchor blocks were installed.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at: RM 86.8

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Conduit	Date of conduit construction and primary purpose of conduit	1914 The primary purpose of the conduits is power production.
Impoundment and Watershed	Authorized maximum and minimum water surface elevations	845.2 ft maximum; 837.2 ft minimum
	Normal operating elevations and normal fluctuation range	845.2 ft maximum; 839.2 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 1,002 acre-feet Surface Area: 79.2 acres
	Usable storage volume and surface area	Usable Volume: 420 acre-feet Surface Area: 79 acres
	Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.	The South Edwards Development operates with a 6.0-foot drawdown limit measured in the downward direction from top of crest of spillway (843.2 feet msl) or flashboards (845.2 feet msl) from July 15 through March 14 and 2.0-foot drawdown limit from March 15 through July 14. A minimum flow of 60 cfs is provided to the bypassed reach. A base flow of 160 cfs or inflow, whichever is less, is provided downstream of the development.
	Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.	Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0 Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6 Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1 Browns Falls Development, Erie Boulevard Hydropower, P-2713, RM 96.9 Flat Rock Development, Erie Boulevard Hydropower, P-2713, RM 94.1 * Downstream fish passage is provided at the Upper Newton and Lower Newton developments.
Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt.	Oswegatchie Development, Erie Boulevard Hydropower, LP, P-2713, RM 86.6	

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<p>Indicate which downstream dams have upstream fish passage</p>	<p>Talcville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p> <p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p> <p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p><i>Heuvelton Development, Erie Boulevard Hydropower, LP, P-2713, RM 12</i></p> <p><i>Eel Weir Development, Erie Boulevard Hydropower, LP, P-2713, RM 5.1</i></p> <p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* Upstream fish passage is provided at the Heuvelton and Eel Weir developments.</p>
<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p>

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		The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie's other hydroelectric facilities on the Oswegatchie River.
	Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.	The South Edwards & Oswegatchie Developments FERC project boundary covers 149.9 acres (61.9 acres of land and 88 acres of water).
Hydrologic Setting	Average annual flow at the dam, and period of record used	The approximately average annual flow at the South Edwards Development based on flow data through 1925 through 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY is 567 cfs.
	Average monthly flows and period of record used	The approximate average monthly flows at the South Edwards Development based on flow data through 1925 through 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY are as follows: January –578 cfs February – 577 cfs March – 787 cfs April –1,075 cfs May – 814 cfs June – 458 cfs July – 376 cfs August –349 cfs September – 368 cfs October –410 cfs November – 485 cfs December – 490 cfs
	Location and name of closest stream gauging stations above and below the facility	USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY (located downstream of the Flat Rock Development) USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY (located upstream of the Heuvelton Development)
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	277 square miles Daily mean flow data for the Browns Falls Development was estimated by a linear proration of data from USGS Gage No.

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		04262000 Oswegatchie River near Oswegatchie, NY ² .
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the South Edwards Development (See Appendix A).
	Upstream and downstream locations by river miles	Zone 6: 87.1 to 88.4 Zone 7: 86.8 to 87.1 Zone 8: 86.79 to 86.8
	Type of waterbody (river, impoundment, by-passed reach, etc.)	Zone 6: Impoundment Zone 7: Bypass Zone 8: River
	Delimiting structures or features	Zone 6: From the head of the impoundment, downstream approximately 1.3 miles to the dam. Zone 7: Dam, downstream bypassed reach approximately 0.3 miles. Zone 8: Powerhouse, downstream approximately 0.1 miles to the Oswegatchie impoundment.
	Designated uses by state water quality agency	The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters. Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)

² Ries, K.G. and Friesz, P.J. 2000. Methods for Estimating Low-Flow Statistics for Massachusetts Streams. Water Resources Investigations Report 00-4135. U.S. Department of Interior. U.S. Geological Survey.

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Table I-4. Facility Description Information for the Oswegatchie Development.

<i>Item</i>	<i>Information Requests</i>	<i>Response (and references to further details)</i>
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>Oswegatchie Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Edwards, St. Lawrence County, New York
	River mile of dam above next major river	86.6
	Geographic latitude of dam	44.270
	Geographic longitude of dam	-75.199
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8, 2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.

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	<p>Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories</p>	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
<p>Powerhouse</p>	<p>Date of initial operation (past or future for pre-operational applications)</p>	<p>1913</p>
	<p>Total installed capacity (MW)</p>	<p>Oswegatchie River Project: <i>Browns Falls Development: 15.00 MW</i> <i>Flat Rock Development: 5.07 MW</i> <i>South Edwards Development: 2.92 MW</i> <i>Oswegatchie Development: 2.07 MW</i> <i>Heuvelton Development: 1.04 MW</i> <i>Eel Weir Development: 2.46 MW</i> Total Installed Capacity: 28.56 MW</p>
	<p>Average annual generation (MWh) and period of record used</p>	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below. Oswegatchie River Project: <i>Browns Falls Development: 55,741 MWh</i> <i>Flat Rock Development: 16,095 MWh</i> <i>South Edwards Development: 17,249 MWh</i> <i>Oswegatchie Development: 8,080 MWh</i> <i>Heuvelton Development: 4,424 MWh</i> <i>Eel Weir Development: 8,822 MWh</i> Total Annual Generation: 110,411 MWh</p>
	<p>Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)</p>	<p>The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking facilities, and the two downstream developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.</p>

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	<p>Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit</p>	<p>Oswegatchie Development Generating Units: 2</p> <ul style="list-style-type: none"> • Type: vertical-axial-flow turbines • Description: Design capacity of 1,280 HP at design head of 34.7 feet and a speed of 450 rpm (each) • Maximum Capacity: 370 cfs (each) • Minimum Capacity: 50 cfs (each) <p>Generators: 2 Self-contained, direct-connected, Potencia Industrial S.R. 3-phase, 60-cycle alternating current, synchronous generators.</p> <p>Nameplate rating: 1.0 MW (each)</p> <p>Description: 1.15 MVA, 0.9 PF, 2,300 volts, 289 amperes, and 450 rpm.</p>
	<p>Trashrack clear spacing (inches), for each trashrack</p>	<p>Permanent 1-inch trashracks are in place.</p>
	<p>Dates and types of major equipment upgrades</p>	<p>2002 - The project was redeveloped, including a new penstock headworks, penstocks and powerhouse.</p>
	<p>Dates, purpose, and type of any recent operational changes</p>	<p>There have been no recent operational changes regarding the power plants.</p>
	<p>Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments</p>	<p>There are no plans or regulatory activities for upgrades regarding the power plants.</p>
<p><i>Dam or Diversion</i></p>	<p>Date of original construction and description and dates of subsequent dam or diversion structure modifications</p>	<p>1913 – original construction</p> <p>1916 - wooden dam replaced by concrete dam</p>
	<p>Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.</p>	<p>Dam Height: 12 feet Flashboards: N/A</p>
	<p>Spillway elevation and hydraulic capacity</p>	<p>Spillway Elevation: 758.6 feet msl Hydraulic Capacity: 4,600 cfs at elevation 764.0 feet (the top of the penstock intake)</p>
	<p>Tailwater elevation (provide normal range if available)</p>	<p>722.25 – 722.60 feet msl</p>

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	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed by a 6.5-foot-diameter, 75.5-foot-long steel penstock and a 6.5-foot-diameter, 65-foot-long steel penstock, extend downstream from the intake and are installed in a trench excavated in the existing channel from the intake to a new powerhouse.
	Dates and types of major infrastructure changes	<p>The major improvements are listed as follows:</p> <p>1916 - The wooden dam was replaced by a concrete dam and a brick powerhouse with two penstocks was proposed for construction shortly after.</p> <p>1992 - The project suffered a failure of the water supply flume that took it off line for several years.</p> <p>2002 - The project was redeveloped, including a new penstock headworks, penstocks and powerhouse.</p>
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at RM 86.53
Conduit	Date of conduit construction and primary purpose of conduit	<p>1913</p> <p>The primary purpose of the conduits is power production.</p>
Impoundment and Watershed	Authorized maximum and minimum water surface elevations	758.6 ft maximum; 756.2 ft minimum
	Normal operating elevations and normal fluctuation range	758.6 ft maximum; 756.2 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 23 acre-feet Surface Area: 6 acres
	Usable storage volume and surface area	Usable Volume: 2.4 acre-feet Surface Area: 6 acres

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<p>Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.</p>	<p>The Oswegatchie Development operates with a 0.4 foot drawdown limit measured in downward direction from top of crest of spillway (758.6 feet msl). A minimum flow of 40 cfs or is provided to the bypassed reach. A base flow of 160 cfs or inflow, whichever is less, is provided downstream of the development.</p>
<p>Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.</p>	<p>Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0</p> <p>Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6</p> <p>Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1</p> <p><i>Browns Falls Development, Erie Boulevard Hydropower, P-2713, RM 96.9</i></p> <p><i>Flat Rock Development, Erie Boulevard Hydropower, P-2713, RM 94.1</i></p> <p><i>South Edwards, Erie Boulevard Hydropower, P-2713, RM 87.1</i></p> <p>* Downstream fish passage is provided at the Upper Newton and Lower Newton developments.</p>
<p>Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage</p>	<p>Talville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p> <p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p>

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		<p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p>Heuvelton Development, Erie Boulevard Hydropower, LP, P-2713, RM 12</p> <p>Eel Weir Development, Erie Boulevard Hydropower, LP, P-2713, RM 5.1</p> <p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* Upstream fish passage is provided at the Heuvelton and Eel Weir developments.</p>
	<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p> <p>The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie’s other hydroelectric facilities on the Oswegatchie River.</p>
	<p>Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.</p>	<p>The South Edwards & Oswegatchie Developments FERC project boundary covers 149.9 acres (61.9 acres of land and 88 acres of water).</p>
<p>Hydrologic Setting</p>	<p>Average annual flow at the dam, and period of record used</p>	<p>The approximately average annual flow at the Oswegatchie Development based on flow data through 1925 though 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY is 572 cfs.</p>

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	Average monthly flows and period of record used	<p>The approximate average monthly flows at the Oswegatchie Development based on flow data through 1925 through 2018 at the USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY are as follows:</p> <p>January – 582 cfs February – 581 cfs March – 792 cfs April – 1,083 cfs May – 820 cfs June – 461 cfs July – 379 cfs August – 351 cfs September – 370 cfs October – 413 cfs November – 488 cfs December – 493 cfs</p>
	Location and name of closest stream gauging stations above and below the facility	<p>USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY (located downstream of the Flat Rock Development)</p> <p>USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY (located upstream of the Heuvelton Development)</p>
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	<p>279 square miles</p> <p>Daily mean flow data for the Browns Falls Development was estimated by a linear proration of data from USGS Gage No. 04262000 Oswegatchie River near Oswegatchie, NY.³</p>
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the Oswegatchie Development (See Appendix A).
	Upstream and downstream locations by river miles	<p>Zone 9: 86.6 to 86.8 Zone 10: 86.5 to 86.6 Zone 11: 86.1 to 86.53</p>
	Type of waterbody (river, impoundment, by-passed reach, etc.)	<p>Zone 9: Impoundment Zone 10: Bypass Zone 11: River</p>

³ Ries, K.G. and Friesz, P.J. 2000. Methods for Estimating Low-Flow Statistics for Massachusetts Streams. Water Resources Investigations Report 00-4135. U.S. Department of Interior. U.S. Geological Survey.

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	<p>Delimiting structures or features</p>	<p>Zone 9: From the head of the impoundment, downstream approximately 0.2 miles to the dam.</p> <p>Zone 10: Dam, downstream bypassed reach approximately 0.1 miles.</p> <p>Zone 11: Powerhouse, downstream approximately 0.43 miles.</p>
	<p>Designated uses by state water quality agency</p>	<p>The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters.</p> <p>Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)</p>

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Table I-5. Facility Description Information for the Heuvelton Development.

<i>Item</i>	<i>Information Requests</i>	<i>Response (and references to further details)</i>
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>Heuvelton Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Ogdensburg, St. Lawrence County, New York
	River mile of dam above next major river	12.0
	Geographic latitude of dam	44.618
	Geographic longitude of dam	-75.404
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8, 2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.

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	<p>Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories</p>	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
<p>Powerhouse</p>	<p>Date of initial operation (past or future for pre-operational applications)</p>	<p>1924</p>
	<p>Total installed capacity (MW)</p>	<p>Oswegatchie River Project: <i>Browns Falls Development: 15.00 MW</i> <i>Flat Rock Development: 5.07 MW</i> <i>South Edwards Development: 2.92 MW</i> <i>Oswegatchie Development: 2.07 MW</i> <i>Heuvelton Development: 1.04 MW</i> <i>Eel Weir Development: 2.46 MW</i> Total Installed Capacity: 28.56 MW</p>
	<p>Average annual generation (MWh) and period of record used</p>	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below. Oswegatchie River Project: <i>Browns Falls Development: 55,741 MWh</i> <i>Flat Rock Development: 16,095 MWh</i> <i>South Edwards Development: 17,249 MWh</i> <i>Oswegatchie Development: 8,080 MWh</i> <i>Heuvelton Development: 4,424 MWh</i> <i>Eel Weir Development: 8,822 MWh</i> Total Annual Generation: 110,411 MWh</p>
	<p>Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)</p>	<p>The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking facilities, and the two downstream developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.</p>

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	Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit	<p>Generating Units: 2</p> <ul style="list-style-type: none"> Type: vertical Francis turbines Description: Design capacity of 730 HP at design head of 14.5 feet and a speed of 100 rpm (each) Maximum Capacity: 496 cfs (each) Minimum Capacity: 200 cfs (each) <p>Generators: 2 Direct-connected, Westinghouse, 3-phase, 60-cycle alternating current, synchronous generators.</p> <p>Nameplate rating: 0.52 MW (each)</p> <p>Description: 0.65 MVA, 0.8 PF, 2,300 volts, 163 amperes, and 100 rpm.</p>
	Trashrack clear spacing (inches), for each trashrack	1-inch
	Dates and types of major equipment upgrades	There have been no major equipment upgrades regarding the power plant.
	Dates, purpose, and type of any recent operational changes	There have been no recent operational changes regarding the power plants.
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	There are no plans or regulatory activities for upgrades regarding the power plants.
<i>Dam or Diversion</i>	Date of original construction and description and dates of subsequent dam or diversion structure modifications	1923 – original construction
	Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.	Dam Height: 19 feet Flashboards: N/A
	Spillway elevation and hydraulic capacity	Spillway Elevation: 276.5 feet msl Hydraulic Capacity: 23,000 cfs at elevation 292 feet (the top of right abutment)
	Tailwater elevation (provide normal range if available)	273.25 – 276.25 feet msl
	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed to the powerhouse through a 70-foot-long, 21.25-foot-high gated intake structure.

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	Dates and types of major infrastructure changes	<p>The major improvements are listed as follows:</p> <p>1993 - Spillway rehabilitation included replacement of the needle beam deck, upper deck, four piers, gate chains and turnbuckles, counterweights, and the majority of trunnion pins and anchors.</p> <p>2018 – Construction of a nature-like fishway around the powerhouse.</p>
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at RM 12.0
Conduit	Date of conduit construction and primary purpose of conduit	<p>1923</p> <p>The primary purpose of the conduits is power production.</p>
Impoundment and Watershed	Authorized maximum and minimum water surface elevations	286.7 ft maximum; 1,283.30 ft minimum
	Normal operating elevations and normal fluctuation range	286.7 ft maximum; 286.2 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 405 acre-feet Surface Area: 239 acres
	Usable storage volume and surface area	Usable Volume: 238 acre-feet Surface Area: 239 acres
	Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.	The Heuvelton Development operates with a 0.5-foot drawdown limit measured in downward direction from the top of the tainter gate crest or equivalent (286.7 feet msl). A base flow of 275 cfs or inflow, whichever is less, is provided downstream of the development.
Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.	<p>Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0</p> <p>Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6</p> <p>Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1</p>	

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		<p>Browns Falls Development, Erie Boulevard Hydropower, P-2713, RM 96.9</p> <p>Flat Rock Development, Erie Boulevard Hydropower, P-2713, RM 94.1</p> <p>South Edwards, Erie Boulevard Hydropower, P-2713, RM 87.1</p> <p>Oswegatchie Development, Erie Boulevard Hydropower, LP, P-2713, RM 86.6</p> <p>Talcville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p> <p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p> <p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p>* Downstream fish passage is provided at the Upper Newton and Lower Newton developments.</p>
	<p>Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage</p>	<p>Eel Weir Development, Erie Boulevard Hydropower, LP, P-2713, RM 5.1</p> <p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* Upstream fish passage is provided at the Eel Weir Development.</p>

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	<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p> <p>The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie's other hydroelectric facilities on the Oswegatchie River.</p>
	<p>Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.</p>	<p>The FERC project boundary covers 220.4 acres (0.5 acres of land and 219.9 acres of water).</p>
<p>Hydrologic Setting</p>	<p>Average annual flow at the dam, and period of record used</p>	<p>The approximately average monthly flow at the Heuvelton Development based on flow data through 1925 though 2018 at the USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY is 1,751 cfs.</p>
	<p>Average monthly flows and period of record used</p>	<p>The approximate average monthly flows at the Heuvelton Development based on flow data through 1925 through 2018 at the USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY are as follows:</p> <p>January – 2,020 cfs February – 1,600 cfs March – 3,238 cfs April – 4,271 cfs May – 2,241 cfs June – 1,056 cfs July – 723 cfs August – 550 cfs September – 615 cfs October – 1,016 cfs November – 1,701 cfs December – 1,636 cfs</p>

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	Location and name of closest stream gauging stations above and below the facility	USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY (located upstream of the Heuvelton Development)
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	995 square miles Daily mean flow data for the Browns Falls Development was estimated by a linear proration of data from USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY, NY. ⁴ .
Designated Zones of Effect	Number of zones of effect	There are two zones of effect at the Heuvelton Development (See Appendix A).
	Upstream and downstream locations by river miles	Zone 12: 12.0 to 14.2 Zone 13: 11.6 to 12.0
	Type of waterbody (river, impoundment, by-passed reach, etc.)	Zone 12: Impoundment Zone 13: River
	Delimiting structures or features	Zone 12: From the head of the impoundment, downstream approximately 2.2 miles to the dam. Zone 13: Powerhouse, downstream approximately 0.4 miles
	Designated uses by state water quality agency	The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters. Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)

⁴ Ries, K.G. and Friesz, P.J. 2000. Methods for Estimating Low-Flow Statistics for Massachusetts Streams. Water Resources Investigations Report 00-4135. U.S. Department of Interior. U.S. Geological Survey.

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Table I-6. Facility Description Information for the Eel Weir Development.

<i>Item</i>	<i>Information Requests</i>	<i>Response (and references to further details)</i>
Name of the Facility	Facility name (use FERC project name if possible)	Oswegatchie River Hydroelectric Project (FERC No. 2713) <i>Eel Weir Development</i>
Location	River name (USGS proper name)	Oswegatchie River
	Watershed name	Oswegatchie River Basin HUC-04150302
	Nearest town(s), county(ies), and state(s) to dam	Ogdensburg, St. Lawrence County, New York
	River mile of dam above next major river	5.1
	Geographic latitude of dam	44.638
	Geographic longitude of dam	-75.491
Facility Owner	Application contact names	See Part V of LIHI certification application for more information
	Facility owner company and authorized owner representative name.	Erie Boulevard Hydropower, L.P. Daniel J. Maguire
	FERC licensee company name (if different from owner)	Same as above
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	FERC Project Number 2713 New license issued November 26, 2012 The Oswegatchie Hydroelectric Project Settlement Agreement was dated January 21, 2011 and filed with FERC on February 18, 2011. License expires on December 31, 2052.
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	License for Major Project (> 5 MW)
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	The Section 401 Water Quality Certificate was issued by the New York State Department of Environmental Conservation (NYSDEC) May 8, 2012, and adopted into FERC license. The NYSDEC DEC I.D. 64099-00044/00005.

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	<p>Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories</p>	<p>November 26, 2012 Order Issuing New License : https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13115600</p> <p>October 18, 2011 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248</p> <p>October 24, 2012 Water Quality Certificate: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296</p> <p>February 18, 2011 Offer of Settlement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998</p>
<p>Powerhouse</p>	<p>Date of initial operation (past or future for pre-operational applications)</p>	<p>1928</p>
	<p>Total installed capacity (MW)</p>	<p>Oswegatchie River Project: <i>Browns Falls Development: 15.00 MW</i> <i>Flat Rock Development: 5.07 MW</i> <i>South Edwards Development: 2.92 MW</i> <i>Oswegatchie Development: 2.07 MW</i> <i>Heuvelton Development: 1.04 MW</i> <i>Eel Weir Development: 2.46 MW</i> Total Installed Capacity: 28.56 MW</p>
	<p>Average annual generation (MWh) and period of record used</p>	<p>Actual annual generation is filed with FERC each year. The average generation from 2013 to 2018 is listed below.</p> <p>Oswegatchie River Project: <i>Browns Falls Development: 55,741 MWh</i> <i>Flat Rock Development: 16,095 MWh</i> <i>South Edwards Development: 17,249 MWh</i> <i>Oswegatchie Development: 8,080 MWh</i> <i>Heuvelton Development: 4,424 MWh</i> <i>Eel Weir Development: 8,822 MWh</i> Total Annual Generation: 110,411 MWh</p>
	<p>Mode of operation (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.)</p>	<p>The four upstream developments (i.e., Browns Falls, Flat Rock, South Edwards, and Oswegatchie) are operated as peaking facilities, and the two downstream developments (i.e., Heuvelton and Eel Weir) operate in a run-of-river mode.</p>

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<p>Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit</p>	<p>Generating Units: 3</p> <ul style="list-style-type: none"> • Type: <ul style="list-style-type: none"> ○ Unit 1: vertical Francis turbine ○ Units 1 & 2 : vertical propeller turbines • Description: <ul style="list-style-type: none"> ○ Unit 1: Design capacity of 600 HP at design head of 12.5 feet and a speed of 100 rpm ○ Units 2 & 3: Design capacity of 1,350 HP at design head of 12.5 feet and a speed of 100 rpm (each) • Maximum Capacity: <ul style="list-style-type: none"> ○ Unit 1: 510 cfs ○ Units 2 & 3 = 1,165 cfs (each) • Minimum Capacity: <ul style="list-style-type: none"> ○ Unit 1: 220 cfs ○ Units 2 & 3 = 790 cfs (each) <p>Generators: 3 Direct-connected, General Electric 3-phase, 60-cycle, alternating current, synchronous generators.</p> <p>Nameplate rating: Unit 1: 0.5 MW Units 2 & 3: 1.375 MW</p> <p>Description: Unit 1: 0.625 MVA, 0.8 PF, 2,400 volts, 150 amperes, and 100 rpm. Units 2 & 3: 1.375 MVA, 0.8 PF, 2,400 volts, 331 amperes, and 100 RPM.</p>
<p>Trashrack clear spacing (inches), for each trashrack</p>	<p>1-inch</p>
<p>Dates and types of major equipment upgrades</p>	<p>1931 - Installation of the powerhouse headgate hoisting system</p>
<p>Dates, purpose, and type of any recent operational changes</p>	<p>There have been no recent operational changes regarding the power plants.</p>

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	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	There are no plans or regulatory activities for upgrades regarding the power plants.
<i>Dam or Diversion</i>	Date of original construction and description and dates of subsequent dam or diversion structure modifications	1928 – original construction
	Dam or diversion structure height including separately, the height of any flashboards, inflatable dams, etc.	Dam Height: 15 feet Flashboards: N/A
	Spillway elevation and hydraulic capacity	Spillway Elevation: 272.0 feet msl Hydraulic Capacity: 70,000 cfs at elevation 280 feet (the top of the non-overflow structures)
	Tailwater elevation (provide normal range if available)	258 – 262.5 feet msl
	Length and type of all penstocks and water conveyance structures between the impoundment and powerhouse	Water is conveyed through a 117-foot-long, 21.75-foot-high gated intake structure.
	Dates and types of major infrastructure changes	The major improvements are listed as follows: 1942 - Construction of downstream concrete apron at the dam 1979 - Replacement of the existing Ambursen-type spillway with the new Ambursentype spillway and sluice gate structure. 2015 - Construction of a nature-like fishway around left side of the spillway.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Oswegatchie River Project is for power production.
	Source water	Oswegatchie River
	Receiving water and location of discharge	Oswegatchie River at RM 5.1
<i>Conduit</i>	Date of conduit construction and primary purpose of conduit	1928 The primary purpose of the conduits it power production.
<i>Impoundment and</i>	Authorized maximum and minimum water surface elevations	272 ft maximum; 1,283.30 ft minimum

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Watershed	Normal operating elevations and normal fluctuation range	272 ft maximum; 271.5 ft minimum
	Gross storage volume and surface area at full pool	Gross Volume: 136 acre-feet Surface Area: 96 acres
	Usable storage volume and surface area	Usable Volume: 96 acre-feet Surface Area: 96 acres
	Describe requirements related to impoundment inflow, outflow, up/down ramping and refill rate restrictions.	The Eel Weir Development operates with a 0.5-foot drawdown limited measured in downward direction from top of crest of spillway (272 feet msl). A base flow of 325 cfs or inflow, whichever is less, is provided downstream of the development.
	Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.	<p>Cranberry Lake Project, Ampersand Cranberry Lake Hydro, P-9685, RM 108.0</p> <p>Upper Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.6</p> <p>Lower Newton Falls Development, Erie Boulevard Hydropower, LP, P-7000, RM 99.1</p> <p><i>Browns Falls Development, Erie Boulevard Hydropower, P-2713, RM 96.9</i></p> <p><i>Flat Rock Development, Erie Boulevard Hydropower, P-2713, RM 94.1</i></p> <p><i>South Edwards, Erie Boulevard Hydropower, P-2713, RM 87.1</i></p> <p><i>Oswegatchie Development, Erie Boulevard Hydropower, LP, P-2713, RM 86.6</i></p> <p>Talcville Project, Erie Boulevard Hydropower, LP, P-4402, RM 75.7</p> <p>Emeryville Project, Hampshire Paper Company, P-2850, RM 72.3</p> <p>Fowler No. 7 Project, Hydro Development Group, P-6059, RM 69</p>

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	<p>Hailesboro No. 6 Project, Hydro Development Group, P-3181, RM 68.2</p> <p>Hailesboro No. 4 Project, Hydro Development Group, p-5633, RM 67.1</p> <p>Village of Gouverneur Project, Village of Gouverneur, P-7155, RM 64.4</p> <p>Natural Dam Project, Cell Tissue Corporation, P-2851, RM 62.4</p> <p><i>Heuvelton Development, Erie Boulevard Hydropower, LP, P-2713, RM 12</i></p> <p>* Downstream fish passage is provided at the Upper Newton, Lower Newton, and Heuvelton developments.</p>
<p>Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage</p>	<p>Ogdensburg Project, Ampersand Ogdensburg Hydro, P-9821, RM 0.9</p> <p>* No upstream passage provided at the downstream dam.</p>
<p>Operating agreements with upstream or downstream facilities that affect water availability and facility operation</p>	<p>The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development, which are all owned and operated by Erie, and is the principal storage facility in the Oswegatchie River Basin.</p> <p>The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.</p> <p>The Oswegatchie Project operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie’s other hydroelectric facilities on the Oswegatchie River.</p>
<p>Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control.</p>	<p>The FERC project boundary covers 205.1 acres (118.6 acres of land and 86.5 acres of water).</p>

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Hydrologic Setting	Average annual flow at the dam, and period of record used	The approximately average monthly flow at the Eel Weir Development based on flow data through 1925 though 2018 at the USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY is 2,773 cfs.
	Average monthly flows and period of record used	The approximate average monthly flows at the Eel Weir Development based on flow data through 1925 through 2018 at the USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY are as follows: January – 3,199 cfs February – 2,534 cfs March – 5,128 cfs April – 6,764 cfs May – 3,548 cfs June – 1,672 cfs July – 1,144 cfs August – 870 cfs September – 975 cfs October – 1,609 cfs November – 2,694 cfs December – 2,591 cfs
	Location and name of closest stream gauging stations above and below the facility	USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY (located upstream of the Heuvelton Development)
	Watershed area at the dam (in square miles). Identify if this value is prorated and provide the basis for proration.	1,590 square miles Daily mean flow data for the Browns Falls Development was estimated by a linear proration of data from USGS Gage No. 04263000 Oswegatchie River near Heuvelton, NY, NY. ⁵
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the Eel Weir Development (See Appendix A).
	Upstream and downstream locations by river miles	Zone 14: 5.1 to 6.6 Zone 15: 3.8 to 5.1
	Type of waterbody (river, impoundment, by-passed reach, etc.)	Zone 14: Impoundment Zone 15: River

⁵ Ries, K.G. and Friesz, P.J. 2000. Methods for Estimating Low-Flow Statistics for Massachusetts Streams. Water Resources Investigations Report 00-4135. U.S. Department of Interior. U.S. Geological Survey.

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	Delimiting structures or features	<p>Zone 14: From the head of the impoundment, downstream approximately 1.5 miles to the dam.</p> <p>Zone 15: Dam, downstream approximately 1.3 miles.</p>
	Designated uses by state water quality agency	<p>The NYSDEC has classified the portion of the Oswegatchie River from the Browns Falls impoundment through the downstream extent of the Oswegatchie Development as Class C waters with an accompanying standard (T) pertaining to trout waters in a portion of the Flat Rock impoundment. The Oswegatchie River at the Heuvelton and Eel Weir Development is classified as Class B waters.</p> <p>Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)</p>

PART II. STANDARD MATRICES

The Oswegatchie River Hydroelectric Project has a total of seventeen zones of effect for this application. The Browns Falls development has three zones of effect that are defined as: (1) Zone one, which extends from the head of the Browns Falls impoundment, downstream approximately 2.0 miles to the Browns Falls dam, (2) Zone two, which extends from the Browns Falls dam, downstream along the bypassed reach approximately 1.4 miles, and (3) Zone three, which extends from the Browns Falls powerhouse, downstream approximately 0.1 miles to the Flat Rock Reservoir.

The Flat Rock development has two zones of effect that are defined as: (1) Zone four, which extends from the head of the Flat Rock impoundment, downstream approximately 1.3 miles to the Flat Rock, (2) Zone five, which extends from the Flat Rock dam, downstream approximately 2.6 miles.

The South Edwards development has three zones of effect that are defined as: (1) Zone six, which extends from the head of the South Edwards impoundment, downstream approximately 1.3 miles to the South Edwards Dam, (2) Zone seven, which extends from the South Edwards dam, downstream along the bypassed reach approximately 0.3 miles, and (3) Zone eight, which extends from the South Edwards powerhouse approximately 0.01 miles to the Oswegatchie impoundment.

The Oswegatchie development has three zones of effect that are defined as: (1) Zone nine, which extends from the head of the Oswegatchie impoundment, downstream approximately 2.0 miles to the Oswegatchie dam, (2) Zone ten, which extends from the Oswegatchie dam, downstream along the bypassed reach approximately 0.1 miles, and (3) Zone eleven, which extends from the Oswegatchie powerhouse, downstream approximately 0.43 miles.

The Heuvelton development has two zones of effect that are defined as: (1) Zone twelve, which extends from the head of the Heuvelton impoundment, downstream approximately 2.2 miles to the Heuvelton dam, (2) Zone thirteen, which extends from the Heuvelton dam, downstream approximately 0.4 miles.

The Eel Weir development has two zones of effect that are defined as: (1) Zone fourteen, which extends from the head of the Eel Weir impoundment, downstream approximately 1.5 miles to the Eel Weir dam, (3) Zone fifteen, which extends from the Eel Weir dam, downstream approximately 1.3 miles.

The standards selected to satisfy the LIHI certification criteria in each of these zones are identified in the following tables.

**Table II-1. LIHI Standards Selected for Zone of Effect No. 1
for the Browns Falls Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-2. LIHI Standards Selected for Zone of Effect No. 2
for the Browns Falls Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-3. LIHI Standards Selected for Zone of Effect No. 3
for the Browns Falls Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-4. LIHI Standards Selected for Zone of Effect No. 4
for the Flat Rock Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-5. LIHI Standards Selected for Zone of Effect No. 5
for the Flat Rock Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-6. LIHI Standards Selected for Zone of Effect No. 6
for the South Edwards Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-7. LIHI Standards Selected for Zone of Effect No. 7
for the South Edwards Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-8. LIHI Standards Selected for Zone of Effect No. 8
for the South Edwards Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-9. LIHI Standards Selected for Zone of Effect No. 9
for the Oswegatchie Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-10. LIHI Standards Selected for Zone of Effect No. 10
for the Oswegatchie Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-11. LIHI Standards Selected for Zone of Effect No. 11
for the Oswegatchie Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-12. LIHI Standards Selected for Zone of Effect No. 12
for the Heuvelton Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			X
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-13. LIHI Standards Selected for Zone of Effect No. 13
for the Heuvelton Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage		X			X
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-14. LIHI Standards Selected for Zone of Effect No. 14
for the Eel Weir Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality		X			
C	Upstream Fish Passage	X				
D	Downstream Fish Passage		X			X
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

**Table II-15. LIHI Standards Selected for Zone of Effect No. 15
for the Eel Weir Development**

Criterion		Alternative Standards				
		1	2	3	4	Plus
A	Ecological Flow Regimes		X			
B	Water Quality		X			
C	Upstream Fish Passage		X			X
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection	X				
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

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PART III. SUPPORTING INFORMATION

This section contains information that explains and justifies the standards selected to pass the LIHI certification criteria (see Part II for selections).

BROWNS FALLS DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.1 Ecological Flows: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility.• For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence.• 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.• For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 1 of the Oswegatchie River Project is the Browns Falls impoundment. All agency recommendations were incorporated into the February 18, 2011 Settlement Offer and subsequent license. The Browns Falls development operates with a maximum fluctuation of four feet from July 15 through March 14, and two feet from March 15 through July 14. Fluctuations greater than 3 feet occur infrequently. Erie maintains two-foot year-round flashboards designed to fail when overtopped in excess of 2 feet of river flow.

Browns Falls operates in tandem with Flat Rock as a peaking facility to increase generation during periods of high electricity demand. The impoundment fluctuates on a daily cycle, typically drawing down when the demand for electricity increases and refilling when demand decreases.

According to the FERC Environmental Assessment (EA), limiting water level fluctuations in the Browns Falls impoundment reduces the occurrence of unplanned drawdowns and protects littoral

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habitat. The seasonal impoundment limitations ensure that habitat conditions are enhanced for fish spawning season. The EA stated that based on data collected for the Impoundment Fluctuation Study, the reservoir fluctuation limits prevent 23 acres of littoral habitat from being dewatered.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

The Browns Falls development is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and Section 401 Water Quality Certificate (WQC) include the requirements for flow releases and water level control recommended by the New York State Department of Environmental Conservation (NYSDEC) and United States Fish and Wildlife Service (USFWS).

Article 401 of the license requires a Stream Flow and Water Level Monitoring Plan (SFWLMP), be developed to ensure compliance with impoundment fluctuations. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Browns Falls development. Erie maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.2 Ecological Flows: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<u>Agency Recommendation (see Appendix A for definitions):</u> <ul style="list-style-type: none">• 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).• Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required

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		<p>regardless of whether the recommendation is or is not part of a Settlement Agreement.</p> <ul style="list-style-type: none">• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).
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Zone 2 of the Oswegatchie River Project is the bypassed reach downstream of the Browns Falls dam. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS. The Settlement Offer and 401 WQC require Erie to release a minimum (bypass) flow of 30 cfs year-round through an orifice opening created by raising one of the two dam gates.

Erie conducted a Delphi study of the Browns Falls bypassed reach and evaluated habitat conditions in relation to management goals for flows of 15, 23, 30, and 45 cfs. The study indicated that providing a year-round flow of 30 cfs in the Browns Falls bypassed reach would enhance overwintering habitat for trout from October 1 through March 31.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

Browns Falls Delphi Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523205>

One of the agencies management goals for the Browns Falls bypassed reach is to enhance the trout population. Included in the Settlement Offer is the Trout Stocking and Monitoring Plan developed in consultation with the NYSDEC, the USFWS, and Trout Unlimited. Erie stocked trout and performed seasonal continuous water temperature monitoring in the Browns Falls bypassed reach on an annual basis from 2013 through 2017. In addition to stocking the bypassed reach with trout and monitoring water temperatures, Erie perform sampling events in 2014, 2016, and 2018 to evaluate the stocking success. On December 5, 2018 Erie submitted the Final Trout Stocking and Monitoring Report.

The EA for the project stated that by providing minimum flows year-round and implementing the Trout Stocking and Monitoring Plan would establish a viable trout population in the bypassed reach.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Final Trout Stocking and Monitoring Report:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15113243>

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Article 401 of the license requires a SFWLMP be developed to ensure compliance with bypass flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the Browns Falls development.

Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

III.A.3 Ecological Flows: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility.• For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence.• 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.• For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 3 of the Browns Falls development is the 1,000 foot-long tailrace area downstream of the Browns Falls powerhouse and does not include a bypassed reach. A base flow was not

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recommended at the Browns Falls development given that the development flows directly into the Flat Rock impoundment. The license does not contain conditions to manage fish and wildlife in the tailrace.

Information Required to Support Water Quality Standards.

III.B.1 Water Quality: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d)

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list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

In the vicinity of the Browns Falls development, the Oswegatchie River is designated as Class C. The best usage of Class C water is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

III.B.2 Water Quality: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation. • Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency). • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

See response above for Zone 1.

III.B.3 Water Quality: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation. • Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency). • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

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See response above for Zone 1.

Information Required to Support Upstream Fish Passage Standards.

III.C.1 Upstream Fish Passage: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Department of Interior (Interior) prescribed anadromous or catadromous fish passage facilities at the Browns Falls development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur in the vicinity of the Browns Falls Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.C.2 Upstream Fish Passage: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory

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		<p>fish species in the vicinity.</p> <ul style="list-style-type: none"> • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.
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See response above for Zone 1.

III.C.3 Upstream Fish Passage: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

See response above for Zone 1.

Information Required to Support Downstream Fish Passage Standards.

III.D.1 Downstream Fish Passage: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • 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). • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. • Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

The FERC license and Settlement Offer incorporate agency recommendations for fish entrainment protection at the Oswegatchie River Project. To exclude adult fish from being entrained through the turbines, 1-inch trashracks (or seasonal overlays) are to be installed at Browns Falls by December 31, 2023. As of the date of this application, the trashracks have not been installed. There are no provisions for fish passage monitoring or effectiveness testing.

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According to the EA, there was little evidence to suggest that fish entrainment was having an adverse effect on the fish community. However, the 1-inch trashracks would reduce project-related entrainment and likely increase the abundance or stability of the fish communities.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed fish passage facilities for this development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within the Browns Falls Project boundary.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.D.2 Downstream Fish Passage: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• 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).• Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not.• Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

The FERC license incorporates the requirements of the Section 401 WQC for minimum flows in the bypassed reach at the Browns Falls development. Erie is required to release a minimum flow of 30 cfs year-round through an orifice opening created by raising one of the two dam gates. The Oswegatchie River Project is in compliance with resource agency conditions issued

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regarding flow conditions. Fish passage monitoring or effectiveness is not required in the license for the Browns Falls development.

Erie conducted a Delphi study of the Browns Falls bypassed reach and evaluated habitat conditions in relation to management goals for bypass flows of 15, 23, 30, and 45 cfs. The study indicated that providing a year-round flow of 30 cfs in the Browns Falls bypassed reach would enhance overwintering habitat for trout from October 1 through March 31.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

Browns Falls Delphi Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523205>

III.D.3 Downstream Fish Passage: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.• For riverine fish populations that are known to move 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.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 3 because it is the tailwater/downstream zone. During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed fish passage facilities for this development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with

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other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within the Browns Falls Project boundary.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

Information Required to Support Shoreline and Watershed Protection Standards.

III.E.1 Shoreline and Watershed Protection: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project states the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (Fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.2 Shoreline and Watershed Protection: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 1.

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III.E.3 Shoreline and Watershed Protection: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 1.

Information Required to Support Threatened and Endangered Species Standards.

III.F.1 Threatened and Endangered Species: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Browns Falls Development. By letter dated January 30, 2019, the NYSDEC indicated that the Common Loon (*Gavia immer*), which is endangered species of special concern, and Maple-Basswood Rich Mesic Forest has been documented in the vicinity of the Browns Falls Development. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Maple- Basswood Rich Mesic Forest.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

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Article 406 required the licensee to implement the Common Loon Nesting Platform Installation and Monitoring Plan, included as Appendix A of the Settlement Offer, Erie initiated the 5-year period of loon raft monitoring in 2013. A final loon raft monitoring was completed in 2017. A final annual report was submitted to FERC on October 19, 2017.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

2017 Common Loon Monitoring Annual Summary:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14714557>

The record of RTE consultation is included in Appendix E.

III.F.2 Threatened and Endangered Species: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 1.

III.F.3 Threatened and Endangered Species: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 1.

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Information Required to Support Cultural and Historic Resources Standards.

III.G.1 Cultural and Historic Resources: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

In 2012, the licensee executed a Programmatic Agreement (PA) with FERC, the Advisory Council on Historic Preservation, and the New York State Historic Preservation Officer (SHPO) for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license. The historical resources for the Browns Falls development include the Browns Falls Mill Complex Historic Site. By letter dated October 4, 2010, the New York SHPO stated that the Browns Falls hydroelectric facility was eligible for listing on the National Register.

Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of a Historical Properties Management Plan (HPMP). Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

On March 20, 2017, Erie requested amendment of the monitoring schedule at the Browns Falls Mill Complex Historic Site, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP.

Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.2 Cultural and Historic Resources: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by

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		<p>the facility.</p> <ul style="list-style-type: none"> • Document that the facility is in compliance with all such plans.
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See response above for Zone 1.

III.G.3 Cultural and Historic Resources: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<p><u>Approved Plan:</u></p> <ul style="list-style-type: none"> • Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility. • Document that the facility is in compliance with all such plans.

See response above for Zone 1.

Information Required to Support Recreational Resources Standards.

III.H.1 Recreational Resources: Browns Falls Development Zone 1

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations. • Document that the facility is in compliance with all such recommendations and plans.

The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. At Browns Falls, there are no formal project recreation facilities. The Browns Falls tailrace area, which provides recreational fishing, can be accessed through use of the Flat Rock boat launch.

On April 1, 2011 Erie submitted a Recreation Management Plan (RMP). Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

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On September 21, 2015, Erie filed a request to amend the project's revised RMP, which was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the Browns Falls Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the Browns Falls development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

III.H.2 Recreational Resources: Browns Falls Development Zone 2

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 1.

III.H.3 Recreational Resources: Browns Falls Development Zone 3

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 1.

FLAT ROCK DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.4 Ecological Flows: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility. • For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence. • 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. • For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 4 of the Oswegatchie River Project is the Flat Rock impoundment. The Flat Rock development operates with a maximum fluctuation of four feet from July 15 through March 14, and two feet from March 15 through July 14. Flat Rock operates in tandem with Brown Falls as a peaking facility to increase generation during periods of high electricity demand. The impoundment fluctuates on a daily cycle, typically drawing down when the demand for electricity increases and refilling when demand decreases.

According to the FERC EA, reduced water level fluctuations in the Flat Rock impoundment reduces the occurrence of unplanned drawdowns and protects littoral habitat. The seasonal impoundment limitations ensure that habitat conditions are enhanced for fish spawning season. The EA stated that based on data collected for the Impoundment Fluctuation Study, the reservoir fluctuation limits prevent 21 acres of littoral habitat from being dewatered.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

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The Flat Rock development is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS.

Article 401 of the license requires an SFWLMP be developed to ensure compliance with impoundment fluctuations, and bypass flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Flat Rock development.

Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.5 Ecological Flows: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 5 of the Oswegatchie River Project is the 25-foot long tailrace of the Flat Rock development. The Flat Rock powerhouse is integral with the dam; therefore, there is no bypassed reach at this development. The Settlement Offer and 401 WQC require Erie to release a

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minimum base flow of 160 cfs year-round from the Flat Rock powerhouse. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS. According to the EA, the proposed minimum base flows were consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the base flows were understood to adequately support and maintain existing aquatic communities.

Article 401 of the license requires a SFWLMP be developed to ensure compliance with bypass flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the Flat Rock development.

Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

Information Required to Support Water Quality Standards.

III.B.4 Water Quality: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any

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		agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.
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The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d) list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

In the vicinity of the Flat Rock development, the Oswegatchie River is designated as Class C. The best usage of Class C water is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. An accompanying standard (T) pertaining to trout water was included in a section for the Flat Rock impoundment. This standard indicated that this section of the river may support a trout population.

III.B.5 Water Quality: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • If facility is located on a Water Quality Limited river reach, provide a link to the state’s most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation. • Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms

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		<p>and conditions remain valid and in effect for the facility (e.g., a letter from the agency).</p> <ul style="list-style-type: none"> • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.
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See response above for Zone 4.

Information Required to Support Upstream Fish Passage Standards.

III.C.4 Upstream Fish Passage: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor Interior prescribed fish passage facilities at the Flat Rock development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur in the vicinity of the Flat Rock Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

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III.C.5 Upstream Fish Passage: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

See response above for Zone 4.

Information Required to Support Downstream Fish Passage Standards.

III.D.4 Downstream Fish Passage: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• 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).• Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not.• Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

The FERC license and Settlement Offer incorporate agency recommendations for fish entrainment protection at the Oswegatchie River Project. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The Settlement Offer and 401 WQC require Erie to release a minimum base flow of 160 cfs year-round from the Flat Rock's tailrace.

To exclude adult fish from being entrained through the turbines, installation of 1-inch trashracks (or seasonal overlays) was required at Flat Rock by December 31, 2023. On November 13, 2015, Erie submitted the Exhibit F drawings for the new 1-inch trash racks installed on Unit No. 2 and on November 20, 2015, FERC issued an Order Approving As-Builts. The remaining portion of trashracks are planned to be installed by December 31, 2019.

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According to the EA, there was little evidence to suggest that fish entrainment was having an adverse effect on the fish community. However, the 1-inch trashracks would reduce project-related entrainment and likely increase the abundance or stability of the fish communities.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

Order Approving Trashrack As-Built:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14050661>

III.D.5 Downstream Fish Passage: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.• For riverine fish populations that are known to move 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.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 4 because it is the tailwater/downstream zone. During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed fish passage facilities for this development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within the Flat Rock Project boundary.

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Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

Information Required to Support Shoreline and Watershed Protection Standards.

III.E.4 Shoreline and Watershed Protection: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project states the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.5 Shoreline and Watershed Protection: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 4.

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Information Required to Support Threatened and Endangered Species Standards.

III.F.4 Threatened and Endangered Species: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Flat Rock Development. By letter dated January 30, 2019, the NYSDEC indicated that the Common Loon (*Gavia immer*), which is endangered species of special concern, and Maple-Basswood Rich Mesic Forest has been documented in the vicinity of the Flat Rock Development. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Maple-Basswood Rich Mesic Forest.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

Article 406 required the licensee to implement the Common Loon Nesting Platform Installation and Monitoring Plan, included as Appendix A of the Settlement Offer, Erie initiated the 5-year period of loon raft monitoring in 2013. A final loon raft monitoring was completed in 2017. A final annual report was submitted to FERC on October 19, 2017.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

2017 Common Loon Monitoring Annual Summary:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14714557>

The record of RTE consultation is included in Appendix E.

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III.F.5 Threatened and Endangered Species: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 4.

Information Required to Support Cultural and Historic Resources Standards.

III.G.4 Cultural and Historic Resources: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

In 2012, the licensee executed a PA with FERC, the Advisory Council on Historic Preservation, and the SHPO for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license. The historical resources for the Flat Rock development are limited to the Flat Rock Historic House. By letter dated October 4, 2010, the New York SHPO stated that the Flat Rock hydroelectric facility was eligible for listing on the National Register.

Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of an HPMP. Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

On March 20, 2017, Erie requested an amendment to the monitoring schedule at the Flat Rock Historic House, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP.

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Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.5 Cultural and Historic Resources: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 4.

Information Required to Support Recreational Resources Standards.

III.H.4 Recreational Resources: Flat Rock Development Zone 4

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. Erie operates and maintains a boat launch, portage route, an educational and historical kiosk, and a picnic area at the Flat Rock Development.

On April 1, 2011 Erie submitted an RMP. Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

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On September 21, 2015, Erie filed a request to amend the project's revised RMP by reconfiguring portage routes to avoid steep slopes, and the need to install boat slides at Flat Rock. This amendment change was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the Flat Rock Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the Flat Rock development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

III.H.5 Recreational Resources: Flat Rock Development Zone 5

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 4.

SOUTH EDWARDS DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.6 Ecological Flows: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility. • For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence. • 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. • For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 6 of the Oswegatchie River Project is the South Edwards impoundment. The South Edwards development operates with a maximum fluctuation of six feet from July 15 through March 14, and two feet from March 15 through July 14. Erie maintains two-foot year-round flashboards designed to fail when overtopped in excess of 2 feet of river flow. Fluctuations greater than 3 feet occur infrequently.

According to the EA, reduced water level fluctuations in the South Edwards impoundment reduces the occurrence of unplanned drawdowns and protects littoral habitat. The seasonal impoundment limitations ensure that habitat conditions are enhanced for fish spawning season. The EA stated that based on data collected for the Impoundment Fluctuation Study, the reservoir fluctuation limits prevent 6 acres of littoral habitat from being dewatered.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

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The South Edwards development is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS.

Article 401 of the license requires a SFWLMP be developed to ensure compliance with impoundment fluctuations. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the South Edwards development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.7 Ecological Flows: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 7 of the Oswegatchie River Project is the 1,500-foot bypassed reach downstream of the South Edwards dam. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The Settlement Offer and 401 WQC require Erie to release a minimum flow of 60 cfs year-round through provided by the minimum flow unit (or

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other means as determined by Erie). According to the EA, the proposed minimum flow for South Edwards bypassed reach was consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the minimum flow was understood to adequately support and maintain existing aquatic communities.

Article 401 of the license requires a SFWLMP be developed to ensure compliance with bypass flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the South Edwards development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

III.A.8 Ecological Flows: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 8 of the Oswegatchie River Project is the tailrace area downstream of the South Edwards powerhouse and does not include a bypassed reach. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and 401 WQC require Erie to provide a base flow of 160 cfs through

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the Project's tailrace. According to the EA, the proposed minimum base flows were consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the base flows were understood to adequately support and maintain existing aquatic communities.

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Oswegatchie River Project. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

Information Required to Support Water Quality Standards.

III.B.6 Water Quality: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

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Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d) list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

In the vicinity of the South Edwards development, the Oswegatchie River is designated as Class C. The best usage of Class C water is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

III.B.7 Water Quality: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

See response above for Zone 6.

III.B.8 Water Quality: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any

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		<p>subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).</p> <ul style="list-style-type: none"> • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.
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See response above for Zone 6.

Information Required to Support Upstream Fish Passage Standards.

III.C.6 Upstream Fish Passage: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no upstream migratory issues in Zone 6 because it is the South Edwards impoundment. During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor Interior prescribed anadromous or catadromous fish passage facilities at the South Edwards development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur in the vicinity of the South Edwards Development

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

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III.C.7 Upstream Fish Passage: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

See response above for Zone 6.

III.C.8 Upstream Fish Passage: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

See response above for Zone 6.

Information Required to Support Downstream Fish Passage Standards.

III.D.6 Downstream Fish Passage: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • 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). • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. • Describe any provisions for fish passage monitoring or effectiveness

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		determinations that are part of the agency recommendation, and how these are being implemented.
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The FERC license and Settlement Offer incorporate agency recommendations for fish entrainment protection at the Oswegatchie River Project. To exclude adult fish from being entrained through the turbines, 1-inch trashracks (or seasonal overlays) are to be installed at South Edwards by December 31, 2023. As of the date of this application, the trashracks have not been installed. There are no provisions for fish passage monitoring or effectiveness testing.

According to the EA, there was little evidence to suggest that fish entrainment was having an adverse effect on the fish community. However, the 1-inch trashracks would reduce project-related entrainment and likely increase the abundance or stability of the fish communities.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.D.7 Downstream Fish Passage: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> 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). Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

The FERC license incorporates the requirements of the Section 401 WQC for minimum flows in the bypassed reach at the South Edwards development. Erie is required to release a minimum flow of 60 cfs year-round through a minimum flow unit. According to the EA, the proposed minimum flow for South Edwards bypassed reach was consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the minimum flow was understood to adequately support and maintain existing aquatic communities. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. There are no provisions for fish passage monitoring or effectiveness testing.

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed anadromous or catadromous fish passage facilities for this development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future.

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III.D.8 Downstream Fish Passage: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.• For riverine fish populations that are known to move 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.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 6 because it is the tailwater/downstream zone. During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed anadromous or catadromous fish passage facilities at the South Edwards development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within the South Edwards Project boundary.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

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Information Required to Support Shoreline and Watershed Protection Standards.

III.E.6 Shoreline and Watershed Protection: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.7 Shoreline and Watershed Protection: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 6.

III.E.8 Shoreline and Watershed Protection: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).

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		<ul style="list-style-type: none"> Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.
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See response above for Zone 6.

Information Required to Support Threatened and Endangered Species Standards.

III.F.6 Threatened and Endangered Species: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none"> If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents. Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Oswegatchie Development. By letter dated January 30, 2019, the NYSDEC indicated that the Maple- Basswood Rich Mesic Forest has been documented in the vicinity of the Oswegatchie Development. The NYSDEC has not adopted a formal recovery plan for the Maple- Basswood Rich Mesic Forest.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

The record of RTE consultation is included in Appendix E.

III.F.7 Threatened and Endangered Species: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none"> If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans,

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		<p>incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.</p> <ul style="list-style-type: none"> • Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.
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See response above for Zone 6.

III.F.8 Threatened and Endangered Species: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<p><u>Recovery Plan and Action:</u></p> <ul style="list-style-type: none"> • If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents. • Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 6.

Information Required to Support Cultural and Historic Resources Standards.

III.G.6 Cultural and Historic Resources: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<p><u>Approved Plan:</u></p> <ul style="list-style-type: none"> • Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility. • Document that the facility is in compliance with all such plans.

In 2012, the licensee executed a PA with FERC, the Advisory Council on Historic Preservation, and the New York SHPO for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license. By letter dated October 4, 2010, the New York SHPO stated that the South Edwards hydroelectric facility was eligible for listing on the National Register.

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Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of an HPMP. Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

On March 20, 2017, Erie requested amendment of monitoring schedule, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP.

Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.7 Cultural and Historic Resources: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 6.

III.G.8 Cultural and Historic Resources: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 6.

Information Required to Support Recreational Resources Standards.

III.H.6 Recreational Resources: South Edwards Development Zone 6

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

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The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. Erie operates and maintains a portage route, parking area, and picnic area at the South Edwards Development.

On April 1, 2011 Erie submitted an RMP. Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

On September 21, 2015, Erie filed a request to amend the project's revised RMP by reconfiguring portage routes to avoid steep slopes, and the need to install boat slides at South Edwards. This amendment change was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the South Edwards Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the South Edwards development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

III.H.7 Recreational Resources: South Edwards Development Zone 7

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 6.

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III.H.8 Recreational Resources: South Edwards Development Zone 8

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 6.

OSWEGATCHIE DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.9 Ecological Flows: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility.• For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence.• 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.• For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 9 of the Oswegatchie River Project is the Oswegatchie impoundment. The Oswegatchie development operates with a maximum fluctuation of 0.4 feet. According to the FERC EA, limited water level fluctuations in the Oswegatchie impoundment maintains littoral habitat and associated fish.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

The Oswegatchie development is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS.

Article 401 of the license requires a SFWLMP be developed to ensure compliance with impoundment fluctuations. The final SFWLMP was filed with FERC on September 25, 2013. On

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June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=135639866>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the South Edwards development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.10 Ecological Flows: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 10 of the Oswegatchie River Project is the 350-foot bypassed reach downstream of the Oswegatchie dam. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The Settlement Offer and 401 WQC require Erie to release a minimum flow of 40 cfs year-round through provided by a minimum flow notch in the spillway. According to the EA, the proposed minimum flow for Oswegatchie bypassed reach was consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the minimum flow was understood to adequately support and maintain existing aquatic communities.

Article 401 of the license requires a SFWLMP be developed to ensure compliance with bypass flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC

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issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the Oswegatchie development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

III.A.11 Ecological Flows: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 11 of the Oswegatchie River Project is the tailrace area downstream of the Oswegatchie powerhouse and does not include a bypassed reach. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and 401 WQC require Erie to provide a base flow of 160 cfs through the Project's tailrace. According to the EA, the proposed minimum base flows were consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the base flows were understood to adequately support and maintain existing aquatic communities.

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Oswegatchie River Project. Erie remains in compliance with

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the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

Information Required to Support Water Quality Standards.

III.B.9 Water Quality: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d)

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list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

In the vicinity of the Oswegatchie development, the Oswegatchie River is designated as Class C. The best usage of Class C water is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

III.B.10 Water Quality: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation. • Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency). • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

See response above for Zone 9.

III.B.11 Water Quality: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation. • Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency). • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

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See response above for Zone 9.

Information Required to Support Upstream Fish Passage Standards.

III.C.9 Upstream Fish Passage: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor Interior prescribed anadromous or catadromous fish passage facilities at the Oswegatchie development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur in the vicinity of the Oswegatchie Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.C.10 Upstream Fish Passage: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory

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		<p>fish species in the vicinity.</p> <ul style="list-style-type: none"> • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.
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See response above for Zone 9.

III.C.11 Upstream Fish Passage: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

See response above for Zone 9.

Information Required to Support Downstream Fish Passage Standards.

III.D.9 Downstream Fish Passage: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • 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). • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. • Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

Agency recommendations for fish entrainment protection at the Oswegatchie River Project are included the Settlement Offer and FERC license. Erie implements a base flow of 160 cfs from the Oswegatchie impoundment. To exclude adult fish from being entrained through the turbines, Erie maintains trashracks with 1-inch clear bar spacing.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose

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minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within Flat Project boundary. There are no provisions for fish passage monitoring or effectiveness testing.

Final Fish Passage and Protection Report:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.D.10 Downstream Fish Passage: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> 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). Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

The FERC license incorporates the requirements of the Settlement Offer for minimum flows in the bypassed reach and downstream fish passage at the Oswegatchie development. The Settlement Offer requires Erie to release a minimum bypass flow of 40 cfs through a minimum flow notch. This notch also allows for fish to pass downstream. Erie maintains 1-inch trashracks over the intake to limit fish entrainment.

During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor Interior prescribed anadromous or catadromous fish passage facilities for this development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future.

III.D.11 Downstream Fish Passage: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further

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		<p>downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.</p> <ul style="list-style-type: none"> • For riverine fish populations that are known to move 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. • Document available fish distribution data and the lack of migratory fish species in the vicinity. • If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.
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There are no downstream fish passage barriers or migratory fish management issues in Zone 9 because it is the tailwater/downstream zone. There are no mandatory prescriptions (section 18 or similar) for the passage of riverine fish at the Project. During the relicensing proceeding for the Oswegatchie River Project, neither the Department of Commerce nor the Interior prescribed anadromous or catadromous fish passage facilities at the Oswegatchie development. Interior did, however, request reservation of its authority to prescribe upstream and downstream fish passage devices in the future, which is provided in Article 402 of the FERC license.

Based on fisheries investigations completed by Erie prior to the 2012 FERC license, this area of the Oswegatchie River supports several species such as pumpkinseed, yellow perch, bluntnose minnow, golden shiner, smallmouth bass, largemouth bass, walleye, and pike. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Currently, there are no known data indicating that migratory fish species occur within Oswegatchie boundary.

Final Fish Passage and Protection Report:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

Information Required to Support Shoreline and Watershed Protection Standards.

III.E.9 Shoreline and Watershed Protection: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • 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 FERC project or facility boundary). • Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. Reduced water level fluctuations in the Oswegatchie impoundment protects wetland,

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riparian, and littoral habitat in the Project vicinity. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.10 Shoreline and Watershed Protection: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 9.

III.E.11 Shoreline and Watershed Protection: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 9.

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Information Required to Support Threatened and Endangered Species Standards.

III.F.9 Threatened and Endangered Species: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none"> • If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.\ • Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Oswegatchie Development. By letter dated January 30, 2019, the NYSDEC indicated that the Maple- Basswood Rich Mesic Forest has been documented in the vicinity of the Oswegatchie Development. The NYSDEC has not adopted a formal recovery plan for the Maple- Basswood Rich Mesic Forest.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

The record of RTE consultation is included in Appendix E.

III.F.10 Threatened and Endangered Species: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Enforceable Protection</u> <ul style="list-style-type: none"> • Demonstrate that there is an approved and enforceable shoreline buffer or equivalent watershed protection plan in place for conservation purposes, including buffered shoreline along river corridors. • In lieu of an existing shore land protection plan, provide documentation that the facility commits to protect and not develop an equivalent land area for conservation purposes as a condition of LIHI Certification, with such commitment to be in effect for the duration of LIHI Certification.

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See response above for Zone 9.

III.F.11 Threatened and Endangered Species: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Enforceable Protection</u> <ul style="list-style-type: none">• Demonstrate that there is an approved and enforceable shoreline buffer or equivalent watershed protection plan in place for conservation purposes, including buffered shoreline along river corridors.• In lieu of an existing shore land protection plan, provide documentation that the facility commits to protect and not develop an equivalent land area for conservation purposes as a condition of LIHI Certification, with such commitment to be in effect for the duration of LIHI Certification.

See response above for Zone 9.

Information Required to Support Cultural and Historic Resources Standards.

III.G.9 Cultural and Historic Resources: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

In 2012, the licensee executed a PA with FERC, the Advisory Council on Historic Preservation, and the New York SHPO for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license.

Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of an HPMP. Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

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On March 20, 2017, Erie requested removal of the monitoring schedule at the Browns Falls Mill Complex Historic Site and Flat Rock Historic House, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP. This amendment does not impact the management of cultural resources at the Oswegatchie impoundment.

Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.10 Cultural and Historic Resources: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 9.

III.G.11 Cultural and Historic Resources: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 9.

Information Required to Support Recreational Resources Standards.

III.H.9 Recreational Resources: Oswegatchie Development Zone 9

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

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The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. Erie operates and maintains a portage route at the Oswegatchie Development.

On April 1, 2011 Erie submitted an RMP. Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

On September 21, 2015, Erie filed a request to amend the project's revised RMP by reconfiguring portage routes to avoid steep slopes, and the need to install boat slides. This amendment change was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the Oswegatchie Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the Oswegatchie development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

III.H.10 Recreational Resources: Oswegatchie Development Zone 10

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 9.

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III.H.11 Recreational Resources: Oswegatchie Development Zone 11

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 9.

HEUVELTON DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.12 Ecological Flows: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility.• For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence.• 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.• For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 12 of the Oswegatchie River Project is the Heuvelton impoundment. The Heuvelton development operates in run-of-river mode with a maximum fluctuation of 0.5 feet. According to the FERC EA, limited water level fluctuations in the Heuvelton impoundment maintains littoral habitat and associated fish.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

The Heuvelton development is in compliance with resource agency conditions issued regarding water level conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS.

Article 401 of the license requires a SFWLMP, be developed to ensure compliance with impoundment fluctuations. The final SFWLMP was filed with FERC on September 25, 2013. On

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June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Heuvelton development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.13 Ecological Flows: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 13 of the Oswegatchie River Project is the tailrace area below the Heuvelton dam. The powerhouse releases water directly into the Oswegatchie River; there is no bypassed reach at this development. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS. The Settlement Offer and 401 WQC require Erie to release a minimum base flow of 275 cfs year-round from the Project's powerhouse. According to the EA, the proposed minimum base flows were consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the base flows were understood to adequately support and maintain existing aquatic communities.

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Article 401 of the license requires a SFWLMP be developed to ensure compliance with base flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the Heuvelton development.

Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

Information Required to Support Water Quality Standards.

III.B.12 Water Quality: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d) list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

The Oswegatchie River in the vicinity of the Heuvelton development is classified by NYSDEC as Class B. The best usage of Class B water is primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival.

III.B.13 Water Quality: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

See response above for Zone 12.

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Information Required to Support Upstream Fish Passage Standards.

III.C.12 Upstream Fish Passage: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory fish species in the vicinity. If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 12 because it is an impoundment.

Based on fisheries investigations completed prior to the 2012 FERC license, this area of the Oswegatchie River supports several percid and centrarchid species such as smallmouth bass, largemouth bass, walleye, pike, and yellow perch. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. In addition, lake sturgeon, have been documented in the vicinity of the Heuvelton Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.C.13 Upstream Fish Passage: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• 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).• 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.• Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.
C	PLUS	<p><u>Bonus Activities:</u></p> <ul style="list-style-type: none">• If advanced technology has been or will be deployed, explain how it will increase fish passage success relative to other options.

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		<ul style="list-style-type: none"> • If a basin-scale redevelopment strategy is being pursued, explain how it will increase the abundance and sustainability of migratory fish species in the river system. • If adaptive management is being applied, describe the management objectives, the monitoring program pursuant to evaluating performance against those objectives, and the management actions that will be taken in response to monitoring results.
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All agency recommendations regarding fish passage were incorporated into the Settlement Agreement and License. Erie completed construction of an upstream fishway at the Heuvelton development in 2018 to facilitate the movement of lake sturgeon, American eel, and other fish species. Erie incorporated a nature-like design concept for upstream passage which consists of an excavated bypass channel with reinforced concrete walls beginning on the left side of the powerhouse tailrace, running overland around the left side of the powerhouse and reentering the Oswegatchie River upstream of the powerhouse. Under normal operations, the fishway will have approximately 45 cfs of flow. The upstream passage structure is operated annually on a seasonal basis.

On December 22, 2015, Erie filed its Fish Passage Design Plan (FPDP) pursuant to Article 401(a) to FERC. On February 2, 2016, Erie submitted the final fishway design plans to FERC. On February 16, 2016 FERC issued an Order Modifying and Approving the FPDP.

Order Modifying and Approving Fish Passage Design Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14147024>

On May 12, 2017, Erie filed an amendment to its Fish Passage Design Plan (FPDP) pursuant to Article 401(a). This amendment requested design changes and an extension of the completion date until December 2018. FERC issued the Order Amending the FPDP on July 21, 2017.

Order Amending Fish Passage Design Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14641982>

Article 401 requires effectiveness testing plan following approval of final design. Agencies shall provide approval no later than 6 months prior to implementing the effectiveness testing plan.

Information Required to Support Downstream Fish Passage Standards.

III.D.12 Downstream Fish Passage: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none"> • 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).

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		<ul style="list-style-type: none"> • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. • Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.
D	PLUS	<p><u>Bonus Activities:</u></p> <ul style="list-style-type: none"> • If advanced technology has been or will be deployed, explain how it will increase fish passage success relative to other options. • If a basin-scale redevelopment strategy is being pursued, explain how it will increase the abundance and sustainability of migratory fish species in the river system. • If adaptive management is being applied, describe the management objectives, the monitoring program pursuant to evaluating performance against those objectives, and the management actions that will be taken in response to monitoring results.

The FERC license incorporates and Settlement Offer incorporate agency recommendations for fish entrainment protection at the Oswegatchie River Project. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. The Settlement Offer and 401 WQC require Erie to release a minimum base flow of 275 cfs year-round from the Project's powerhouse.

All agency recommendations regarding fish passage were incorporated into the Settlement Agreement and License. Erie maintains a downstream passage system at the Heuvelton development to facilitate the movement of lake sturgeon, American eel, and other fish species. The downstream passage structure is operated annually on a seasonal basis (March 15 through November 30). Passage is provided through a rectangular gate, with a 4'x4' opening, transitioning to a 30-inch diameter steel pipe, which discharges to the tailrace. The downstream plunge pool depth is five-feet below normal tailwater elevation. Normal operational flow through the downstream gated passage is 20 cfs.

On December 22, 2015, Erie filed its Fish Passage Design Plan (FPDP) pursuant to Article 401(a) to FERC. On February 2, 2016, Erie submitted the final fishway design plans to FERC. On February 16, 2016 FERC issued an Order Modifying and Approving the FPDP.

Order Modifying and Approving Fish Passage Design Plan

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14147024>

On May 12, 2017, Erie filed an amendment to its Fish Passage Design Plan (FPDP) pursuant to Article 401(a). This amendment requested design changes and an extension of the completion date until December 2018. FERC issued the Order Amending the FPDP on July 21, 2017.

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Order Amending Fish Passage Design Plan

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14641982>

Article 401 requires effectiveness testing plan following approval of final design. Agencies shall provide approval no later than 6 months prior to implementing the effectiveness testing plan.

In addition, to prevent fish entrainment, Erie installed 1-inch trashracks in December 2017. According to the EA, there was little evidence to suggest that fish entrainment was having an adverse effect on the fish community. However, the 1-inch trashracks would reduce project-related entrainment and likely increase the abundance or stability of the fish communities.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.D.13 Downstream Fish Passage: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.• For riverine fish populations that are known to move 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.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 12 because it is the tailwater/downstream zone.

Based on fisheries investigations completed prior to the 2012 FERC license, this area of the Oswegatchie River supports several percid and centrarchid species such as smallmouth bass, largemouth bass, walleye, pike, and yellow perch. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the

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impoundments along this stretch. In addition, lake sturgeon, have been documented in the vicinity of the Heuvelton Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

Information Required to Support Shoreline and Watershed Protection Standards.

III.E.12 Shoreline and Watershed Protection: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. Limited water level fluctuations in the Heuvelton impoundment protect wetland, riparian, and littoral habitat in the Project vicinity. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.13 Shoreline and Watershed Protection: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

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See response above for Zone 12.

Information Required to Support Threatened and Endangered Species Standards.

III.F.12 Threatened and Endangered Species: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Heuvelton Development. By letter dated January 30, 2019, the NYSDEC indicated that the following state-listed threatened species has been documented in the vicinity of the Heuvelton Development

- Eastern Sand Darter (*Ammocrypta pellucida*)
- Lake Sturgeon (*Acipenser fulvescens*)
- Mooneye (*Hiodon tergisus*)
- Blanding's Turtle (*Emydoidea blandingii*)

In addition, the NYSDEC indicated that the Common Loon (special concern), Blacknose Shiner (*Notropis heterolepis*) (imperiled in New York State), and Shinkhole Wetland (high quality occurrence of rare community type and globally uncommon) have been documented in the vicinity of the Heuvelton Development.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

The NYSDEC has adopted the following recovery plan for the Lake Sturgeon the may be present in the vicinity of the Heuvelton Development:

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Holst, L., and Zollweg-Horan, E. 2018. Lake Sturgeon Recovery Plan 2018 - 2024. New York State Department of Environmental Conservation, Albany, New York.

Recovery actions identified in the NYSDEC's Lake Sturgeon Recovery Plan include protection of lake sturgeon and spawning habitat preservation. Operations of the Heuvelton Development, especially with regard to limited impoundment fluctuations and construction a nature-like fishway, are consistent with this recovery plan.

The NYSDEC has adopted the following conservation plan for Blanding's turtle in New York State:

Ross, A.M., and G. Johnson. 2018. Conservation Plan for populations of the Blanding's turtle (*Emydoidea blandingii*). New York State Department of Environmental Conservation, Albany, New York. 98pp.

Conservation actions identified in the NYSDEC's Blanding's turtle Conservation Plan include habitat preservation and monitoring efforts. Operations of the Heuvelton Development are consistent with this conservation plan.

The NYSDEC has not adopted a formal recovery plan for the Eastern San Darter or Mooneye.

The record of RTE consultation is included in Appendix E.

III.F.13 Threatened and Endangered Species: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 12.

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Information Required to Support Cultural and Historic Resources Standards.

III.G.12 Cultural and Historic Resources: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

In 2012, the licensee executed a PA with FERC, the Advisory Council on Historic Preservation, and the New York SHPO for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license. By letter dated October 4, 2010, the New York SHPO stated that the Heuvelton hydroelectric facility was eligible for listing on the National Register.

Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of an HPMP. Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

On March 20, 2017, Erie requested removal of the monitoring schedule at the Browns Falls Mill Complex Historic Site and Flat Rock Historic House, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP.

Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.13 Cultural and Historic Resources: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility.• Document that the facility is in compliance with all such plans.

See response above for Zone 14.

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Information Required to Support Recreational Resources Standards.

III.H.12 Recreational Resources: Heuvelton Development Zone 12

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. Erie operates and maintains a day-use area which includes picnic tables, cooking grills, and a parking area at the Heuvelton development.

On April 1, 2011 Erie submitted an RMP. Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

On September 21, 2015, Erie filed a request to amend the project's revised RMP by reconfiguring portage routes to avoid steep slopes, and the need to install boat slides. This amendment change was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the Heuvelton Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the Heuvelton development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

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III.H.13 Recreational Resources: Heuvelton Development Zone 13

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 12.

EEL WEIR DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.14 Ecological Flows: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Confirm the location of the powerhouse relative to dam/diversion structures and demonstrate that there are no bypassed reaches at the facility. • For run-of-river facilities, provide details on operations and demonstrate that flows, water levels, and operation are monitored to ensure such an operational mode is maintained. If deviations from required flows have occurred, discuss them and the measures taken to minimize reoccurrence. • 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. • For impoundment zones only, explain water management (e.g., fluctuations, ramping, refill rates) and how fish and wildlife habitat within the zone is evaluated and managed. NOTE: this is required information, but it will not be used to determine whether the Ecological Flows criterion has been satisfied. All impoundment zones can apply Criterion A-1 to pass this criterion.

Zone 14 of the Oswegatchie River Project is the Eel Weir impoundment. The Eel Weir development operates in run-of-river mode with a maximum fluctuation of 0.5 feet. According to the EA, limited water level fluctuations in the Eel Weir impoundment maintains littoral habitat and associated fish.

Environmental Assessment:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12794248>

Impoundment Fluctuation Study:

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523208>

The Eel Weir development is in compliance with resource agency conditions issued regarding water level conditions. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS.

Article 401 of the license requires a SFWLMP, be developed to ensure compliance with impoundment fluctuations. The final SFWLMP was filed with FERC on September 25, 2013. On

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June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions and impoundment levels have been implemented at the Eel Weir development. Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation.

III.A.15 Ecological Flows: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation (see Appendix A for definitions):</u></p> <ul style="list-style-type: none">• 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).• 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.• Explain how the recommendation relates to agency management goals and objectives for fish and wildlife.• Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations).

Zone 15 of the Oswegatchie River Project is the tailrace area below the dam. The powerhouse releases water directly into the Oswegatchie River; there is no bypassed reach at this development. The FERC license, Settlement Offer, and Section 401 WQC include the requirements for flow releases and water level control recommended by the NYSDEC and USFWS. The Settlement Offer and 401 WQC require Erie to release a minimum base flow of 325 cfs year-round from the Project's powerhouse. According to the EA, the proposed minimum base flows were consistent with the previous license. Since the existing aquatic communities persisted during the prior license term, the base flows were understood to adequately support and maintain existing aquatic communities.

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Article 401 of the license requires a SFWLMP be developed to ensure compliance with base flows. The final SFWLMP was filed with FERC on September 25, 2013. On June 4, 2014 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 412 of the FERC license.

License Article 401 Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13356139>

Order Modifying and Approving Stream Flow and Water Level Monitoring Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13563986>

All of the license and settlement requirements pertaining to flow conditions have been implemented at the Eel Weir development.

Erie remains in compliance with the established flow conditions and impoundment levels and maintains records of these conditions at the Project. In the event of a deviation from established minimum flows or impoundment levels, Erie files documentation with FERC detailing the reasons for the deviation. All bypass flows shall be established and monitored in accordance with the SFWLMP.

Information Required to Support Water Quality Standards.

III.B.14 Water Quality: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Oswegatchie River Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 WQC. The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued October 24, 2012. On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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Water Quality Certificate:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13100296>

Generally, any changes to the original WQC are necessitated by significant changes in or to the Project environment affecting the Conditions of the original WQC, which culminates in an amendment of the original WQC. This situation has not occurred for the Oswegatchie River Project WQC, and the original WQC, issued on October 24, 2012 is still in effect.

Additionally, the Applicant contacted the NYSDEC on January 3, 2019, regarding the current WQC status for the Project. By letter dated January 14, 2019 (note the letter was received from the NYSDEC was dated 2018 in error), the NYSDEC indicated that the current 401 WQC is still valid for the Oswegatchie River Project. The consultation documentation regarding the 401 WQC is included in Appendix D.

Per review of the November 2016 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the November 2016 Section 303(d) list for New York State can be viewed at https://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf.

The Oswegatchie River in the vicinity of the Eel Weir development is classified by NYSDEC as Class B. The best usage of Class B water is primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival.

III.B.15 Water Quality: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• If facility is located on a Water Quality Limited river reach, provide a link to the state's most recent impaired waters list and indicate the page(s) therein that apply to facility waters. If possible, provide an agency letter stating that the facility is not a cause of such limitation.• Provide a copy of the most recent Water Quality Certificate and any subsequent amendments, including the date(s) of issuance. If more than 10 years old, provide documentation that the certification terms and conditions remain valid and in effect for the facility (e.g., a letter from the agency).• Identify any other agency recommendations related to water quality and explain their scientific or technical basis.• Describe all compliance activities related to water quality and any agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

See response above for Zone 14.

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Information Required to Support Upstream Fish Passage Standards.

III.C.14 Upstream Fish Passage: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. Typically, impoundment zones will qualify for this standard since once above a dam and in an impoundment, there is no facility barrier to further upstream movement.• Document available fish distribution data and the lack of migratory fish species in the vicinity. If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 14 because it is an impoundment.

Based on fisheries investigations completed prior to the 2012 FERC license, this area of the Oswegatchie River supports several percid and centrarchid species such as smallmouth bass, largemouth bass, walleye, pike, and yellow perch. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. In addition, lake sturgeon, have been documented in the vicinity of the Eel Weir Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

III.C.15 Upstream Fish Passage: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none">• 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).• 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.• Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.
C	PLUS	<p><u>Bonus Activities:</u></p> <ul style="list-style-type: none">• If advanced technology has been or will be deployed, explain how it will increase fish passage success relative to other options.

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		<ul style="list-style-type: none"> • If a basin-scale redevelopment strategy is being pursued, explain how it will increase the abundance and sustainability of migratory fish species in the river system. • If adaptive management is being applied, describe the management objectives, the monitoring program pursuant to evaluating performance against those objectives, and the management actions that will be taken in response to monitoring results.
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All agency recommendations regarding fish passage were incorporated into the Settlement Agreement and License. Erie maintains an upstream passage fishway at the Eel Weir development to facilitate the movement of lake sturgeon, American eel, and other fish species. Erie incorporated a nature-like design concept for upstream passage which consists of an excavated bypass channel downstream of the spillway consisting of a series of gapped boulders and pools with a minimum depth of two-feet. Under normal operations, the fishway will have approximately 45 cfs of flow. The upstream passage structure is operated annually on a seasonal basis, from March 15 through November 30.

On April 8, 2015, Erie filed with FERC its Fish Passage Plan (FPP) pursuant to Article 401(a). On May 12, 2015 FERC issued an Order Modifying and Approving the FPP.

Order Modifying and Approving Fish Passage Design Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13873616>

Article 401 and the May 12, 2015 Order require fishway effectiveness testing. On July 26, 2018, Erie filed with FERC the Eel Weir Final Fishway Effectiveness Report. On October 11, 2018, FERC acknowledged the report, and stated that it satisfied the effectiveness requirements of the May 12, 2015 FERC Order.

Eel Weir Final Fishway Effectiveness Report:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14984964>

FERC Letter Acknowledging Eel Weir Final Fishway Effectiveness Report:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15066238>

Information Required to Support Downstream Fish Passage Standards.

III.D.14 Downstream Fish Passage: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • 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). • Explain the scientific or technical basis for the agency

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		<p>recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not.</p> <ul style="list-style-type: none"> Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.
D	PLUS	<p><u>Bonus Activities:</u></p> <ul style="list-style-type: none"> If advanced technology has been or will be deployed, explain how it will increase fish passage success relative to other options. If a basin-scale redevelopment strategy is being pursued, explain how it will increase the abundance and sustainability of migratory fish species in the river system. If adaptive management is being applied, describe the management objectives, the monitoring program pursuant to evaluating performance against those objectives, and the management actions that will be taken in response to monitoring results.

The FERC license and Settlement Offer incorporate agency recommendations for fish passage at the Oswegatchie River Project. The Oswegatchie River Project is in compliance with resource agency conditions issued regarding flow conditions. Erie releases a minimum base flow of 325 cfs year-round from the Project's powerhouse.

All agency recommendations regarding fish passage were incorporated into the Settlement Agreement and License. Erie maintains a downstream passage system at the Eel Weir development to facilitate the movement of lake sturgeon, American eel, and other fish species. The downstream passage structure is operated annually on a seasonal basis (March 15 through November 30). Downstream passage will be accomplished through the use of a modified existing sluice gate located adjacent to the powerhouse. Passage will be provided through an approximate 2.2' x 2.1' rectangular opening, discharging approximately 20 cfs to a plunge pool with a depth of approximately 10.5 feet. An existing one-inch trashrack structure was previously installed at the powerhouse for fish protection which will be used in conjunction with the new gate opening.

On April 8, 2015, Erie filed with FERC its Fish Passage Plan (FPP) pursuant to Article 401(a). On May 12, 2015 FERC issued an Order Modifying and Approving the FPP.

Order Modifying and Approving Fish Passage Design Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13873616>

Article 401 and the May 12, 2015 Order require fishway effectiveness testing. On July 26, 2018, Erie filed with FERC the Eel Weir Final Fishway Effectiveness Report. On October 11, 2018, FERC acknowledged the report, and stated that it satisfied the effectiveness requirements of the May 12, 2015 FERC Order.

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Eel Weir Final Fishway Effectiveness Report:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14984964>

FERC Letter Acknowledging Eel Weir Final Fishway Effectiveness Report:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15066238>

III.D.15 Downstream Fish Passage: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none">• 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 natural downstream movement (e.g., entrainment into hydropower turbines). Typically, tailwater/downstream zones will qualify for this standard since below a dam and powerhouse there is no facility barrier to further downstream movement. Bypassed reach zones must demonstrate that flows in the reach are adequate to support safe, effective and timely downstream migration.• For riverine fish populations that are known to move 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.• Document available fish distribution data and the lack of migratory fish species in the vicinity.• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

There are no downstream fish passage barriers or migratory fish management issues in Zone 15 because it is the tailwater/downstream zone.

Based on fisheries investigations completed prior to the 2012 FERC license, this area of the Oswegatchie River supports several percid and centrarchid species such as smallmouth bass, largemouth bass, walleye, pike, and yellow perch. Consistent with other impoundments and rivers in upstate New York, such species are important game-fish species within the impoundments along this stretch. Cold-water fish populations (brook and brown trout) reside in this section at low and scattered populations. In addition, lake sturgeon, have been documented in the vicinity of the Eel Weir Development.

Final Fish Passage and Protection Report

<https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12523212>

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Information Required to Support Shoreline and Watershed Protection Standards.

III.E.14 Shoreline and Watershed Protection: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The FERC EA for the Project the river is not currently considered impaired or threatened by the NYSDEC. There is no evidence that Project operation has contributed to existing shoreline erosion. Reduced water level fluctuations in the Eel Weir impoundment protect wetland, riparian, and littoral habitat in the Project vicinity. There is no shoreline management plan required for the Project.

Included in the Settlement Offer (but not required by the license) is the establishment of the River Management Fund (fund). Erie will contribute \$2,000 annually to the Fund for the term of the license. The Fund may be used for projects, studies, or services, for any of the following purposes along the Oswegatchie River: ecosystem restoration and protection, natural resource stewardship, public education, applied research or development necessary to accomplish these projects and provide these services, new recreation resources, and additional public access to outdoor recreational resources not currently agreed to by the Parties.

Settlement Offer:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12567998>

III.E.15 Shoreline and Watershed Protection: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none">• 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 FERC project or facility boundary).• Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

See response above for Zone 14.

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Information Required to Support Threatened and Endangered Species Standards.

III.F.14 Threatened and Endangered Species: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on information received from the USFWS's New York Field Office on January 31, 2019, regarding a request for information on rare, threatened or endangered (RTE) species it appears that the northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Oswegatchie River Project area.

During preparation of this application, Erie also consulted with NYSDEC's Natural Heritage Program for an updated list of threatened and endangered species that may occur in the vicinity of the Eel Weir Development. By letter dated January 30, 2019, the NYSDEC indicated that the following state-listed threatened species has been documented in the vicinity of the Eel Weir Development

- Eastern Sand Darter (*Ammocrypta pellucida*)
- Lake Sturgeon (*Acipenser fulvescens*)
- Mooneye (*Hiodon tergisus*)
- Blanding's Turtle (*Emydoidea blandingii*)

In addition, the NYSDEC indicated that the Common Loon (special concern), Blacknose Shiner (*Notropis heterolepis*) (imperiled in New York State), and Shinkhole Wetland (high quality occurrence of rare community type and globally uncommon) have been documented in the vicinity of the Eel Weir Development.

The USFWS has not adopted a formal recovery plan for the northern long-eared bat. On January 14, 2016, the USFWS published the final 4(d) rule identifying prohibitions for the protection of northern long-eared bats. Operations of the Oswegatchie River Project, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

The NYSDEC has adopted the following recovery plan for the Lake Sturgeon the may be present in the vicinity of the Eel Weir Development:

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Holst, L., and Zollweg-Horan, E. 2018. Lake Sturgeon Recovery Plan 2018 - 2024. New York State Department of Environmental Conservation, Albany, New York.

Recovery actions identified in the NYSDEC's Lake Sturgeon Recovery Plan include protection of lake sturgeon and spawning habitat preservation. Operations of the Eel Weir Development, especially with regard to limited impoundment fluctuations and construction a nature-like fishway, are consistent with this recovery plan.

The NYSDEC has adopted the following conservation plan for Blanding's turtle in New York State:

Ross, A.M., and G. Johnson. 2018. Conservation Plan for populations of the Blanding's turtle (*Emydoidea blandingii*). New York State Department of Environmental Conservation, Albany, New York. 98pp.

Conservation actions identified in the NYSDEC's Blanding's turtle Conservation Plan include habitat preservation and monitoring efforts. Operations of the Eel Weir Development are consistent with this conservation plan.

The NYSDEC has not adopted a formal recovery plan for the Eastern San Darter or Mooneye.

The record of RTE consultation is included in Appendix E.

III.F.15 Threatened and Endangered Species: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<u>Recovery Plan and Action:</u> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

See response above for Zone 14.

Information Required to Support Cultural and Historic Resources Standards.

III.G.14 Cultural and Historic Resources: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<u>Approved Plan:</u> <ul style="list-style-type: none">• Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by

Oswegatchie River Project Certification Application

		<p>the facility.</p> <ul style="list-style-type: none"> • Document that the facility is in compliance with all such plans.
--	--	---

In 2012, the licensee executed a PA with FERC, the Advisory Council on Historic Preservation, and the New York SHPO for managing historic properties that may be affected by license issued for the continued operation of the Oswegatchie Project.

Programmatic Agreement:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12906599>

The facilities in the Oswegatchie River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the 2012 FERC license. By letter dated October 4, 2010, the New York SHPO stated that the Eel Weir hydroelectric facility was eligible for listing on the National Register.

Article 404 of the 2012 license requires the licensee to implement the PA, including the filing of an HPMP. Erie developed the HPMP in consultation with the SHPO and filed the HPMP with FERC on December 30, 2010. FERC approved the HPMP with issuance of the 2012 license.

On March 20, 2017, Erie requested removal of the monitoring schedule at the Browns Falls Mill Complex Historic Site and Flat Rock Historic House, proposing a five-year monitoring schedule. On March 2, 2017 FERC issued an Order Approving the Amended HPMP. This did not change the management of cultural resources at the Eel Weir development.

Order Approving Amended HPMP:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14580083>

III.G.15 Cultural and Historic Resources: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	2	<p><u>Approved Plan:</u></p> <ul style="list-style-type: none"> • Provide documentation of all approved state, federal, and recognized tribal plans for the protection, enhancement, and mitigation of impacts to cultural and historic resources affected by the facility. • Document that the facility is in compliance with all such plans.

See response above for Zone 14.

Oswegatchie River Project Certification Application

Information Required to Support Recreational Resources Standards.

III.H.14 Recreational Resources: Eel Weir Development Zone 14

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

The Oswegatchie River Project developments are in compliance with recreational access, accommodation, and facilities' conditions in the FERC license. Erie operates and maintains a portage route with take-out/put-in areas.

On April 1, 2011 Erie submitted an RMP. Article 403 of the FERC license required the licensee to file for FERC approval a revised recreation plan to construct, operate, and maintain existing and then-proposed recreational facilities at each development. The licensee filed the revised RMP for the Oswegatchie River Project on June 30, 2013, and FERC issued an order approving the plan (in part) on September 23, 2014.

Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13295216>

Order Approving (In Part) Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13641237>

On September 21, 2015, Erie filed a request to amend the project's revised RMP by reconfiguring portage routes to avoid steep slopes, and the need to install boat slides. This amendment change was granted by FERC on February 27, 2018. All proposed recreation facilities have been developed at the Eel Weir Development. Erie must submit a report detailing the completion of the proposed recreational facilities by February 27, 2020.

Order Amending Revised Recreation Management Plan:

<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14830258>

Erie permits free public access to the shoreline of the Eel Weir development across Erie's lands where Project facilities, hazardous areas and existing leases, easements, and private ownership do not preclude access.

Oswegatchie River Project Certification Application

III.H.15 Recreational Resources: Eel Weir Development Zone 15

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none">• Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.• Document that the facility is in compliance with all such recommendations and plans.

See response above for Zone 14.

Oswegatchie River Project Certification Application

PART IV. SWORN STATEMENT AND WAIVER

As an Authorized Representative of Erie Boulevard Hydropower, L.P., 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 facility is granted, the LIHI Certification Mark License Agreement must be executed prior to marketing the electricity product as LIHI Certified®.

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: Erie Boulevard Hydropower, L.P.

Authorized Representative

Name: Daniel J. Maguire

Title: Compliance Manager

Authorized Signature: _____

Date: 4/23/19



Oswegatchie River Project Certification Application

PART V. CONTACTS

Table V-1. Complete contact information for Erie Boulevard Hydropower, L.P.

Project Owner:	
Name and Title	
Company	Erie Boulevard Hydropower, L.P., a subsidiary of Brookfield Renewable
Phone	
Email Address	
Mailing Address	399 Big Bay Road, Queensbury, NY 12804
Project Operator (if different from Owner):	
Name and Title	
Company	
Phone	
Email Address	
Mailing Address	
Consulting Firm / Agent for LIHI Program (if different from above):	
Name and Title	
Company	
Phone	
Email Address	
Mailing Address	
Compliance Contact (responsible for LIHI Program requirements):	
Name and Title	Daniel J. Maguire, P.E., Compliance Manager
Company	Brookfield Renewable
Phone	315-267-1036
Email Address	Danny.Maguire@brookfieldrenewable.com
Mailing Address	184 Elm Street, Potsdam, NY 13676
Party responsible for accounts payable:	
Name and Title	
Company	Brookfield Renewable
Phone	
Email Address	AP@brookfieldrenewable.com
Mailing Address	41 Victoria, Gatineau, QC J8X 2A1
Name and Title	Sandeep Mascarenhas, Senior Analyst, Capacity & Ancillary Services Management
Company	Brookfield Renewable
Phone	819-561-2722 ext. 6743
Email Address	Sandeep.Mascarenhas@brookfieldrenewable.com
Mailing Address	41 Victoria, Gatineau, QC J8X 2A1

Oswegatchie River Project Certification Application

Table V-2. Complete contact information for current and relevant state, federal, provincial, and tribal resource agency contacts.

Agency Contact (Check area of responsibility: Flows <u>X</u> , Water Quality <u>X</u> , Fish/Wildlife Resources <u>X</u> , Watersheds __, T/E Spp. __, Cultural/Historic Resources __, Recreation <u>X</u>):	
Agency Name	New York State Department of Environmental Conservation
Name and Title	Jessica Hart, Environmental Analyst
Phone	315-785-2246
Email address	Jessica.Hart@dec.ny.gov
Mailing Address	317 Washington Street, Watertown, NY 13601

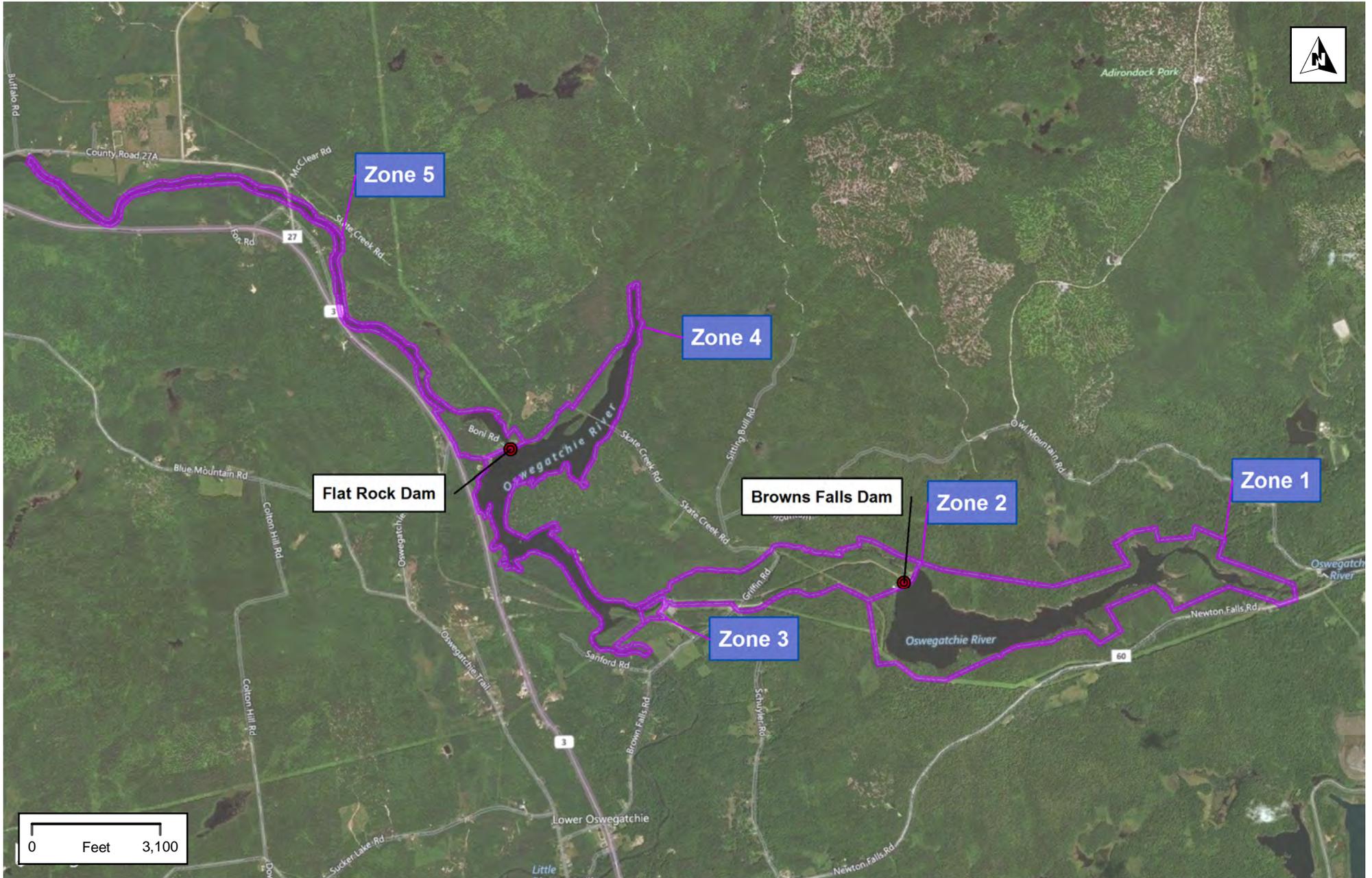
Agency Contact (Check area of responsibility: Flows __, Water Quality __, Fish/Wildlife Resources __, Watersheds __, T/E Spp. <u>X</u> , Cultural/Historic Resources __, Recreation __):	
Agency Name	New York State Department of Environmental Conservation
Name and Title	Nicholas Conrad, Information Resources Coordinator
Phone	518-402-8935
Email address	Nick.Conrad@dec.ny.gov
Mailing Address	625 Broadway, Albany, NY 12233-4757

Agency Contact (Check area of responsibility: Flows __, Water Quality __, Fish/Wildlife Resources __, Watersheds __, T/E Spp. <u>X</u> , Cultural/Historic Resources __, Recreation __):	
Agency Name	U.S. Fish and Wildlife Service
Name and Title	Robyn Niver, Endangered Species Biologist
Phone	607-753-9334
Email address	Robyn_Niver@fws.gov
Mailing Address	3817 Luker Road, Cortland, NY 13045

Agency Contact (Check area of responsibility: Flows <u>X</u> , Water Quality <u>X</u> , Fish/Wildlife Resources <u>X</u> , Watersheds __, T/E Spp. <u>X</u> , Cultural/Historic Resources __, Recreation __):	
Agency Name	U.S. Fish and Wildlife Service
Name and Title	Steve Patch
Phone	607-753-9334
Email address	Stephen_Patch@fws.gov
Mailing Address	3817 Luker Road, Cortland, NY 13045

Agency Contact (Check area of responsibility: Flows __, Water Quality __, Fish/Wildlife Resources __, Watersheds __, T/E Spp. __, Cultural/Historic Resources <u>X</u> , Recreation __):	
Agency Name	New York State Division for Historic Preservation
Name and Title	Michael Lynch, Division Director
Phone	518-237-8643
Email address	Michael.Lynch@parks.ny.gov
Mailing Address	Peebles Island State Park, P.O. Box 189, Waterford, NY 12188-0189

APPENDIX A
OSWEGATCHIE RIVER ZONES OF EFFECT









APPENDIX B

PHOTOS OF KEY PROJECT FEATURES

APPENDIX B – PHOTOGRAPHS OF KEY PROJECT FEATURES



Browns Fall Dam



Browns Falls Bypass Flow



Browns Falls Tailrace



Browns Falls Unit 1



Browns Falls Unit 2



Flat Rock Dam and Powerhouse



Flat Rock Dam and Powerhouse



Flat Rock Downstream



Flat Rock Unit 1



Flat Rock Unit 2



South Edwards Dam and Penstock



South Edwards Dam and Intake



South Edwards Unit 1



South Edwards Unit 2



South Edwards Unit 3



Oswegatchie Dam



Oswegatchie Powerhouse and Tailrace



Oswegatchie Generators Unit 1 (left) and Unit 2 (right)



Oswegatchie Turbine Case Unit 1



Oswegatchie Turbine Case Unit 2



Heuvelton Dam, Powerhouse, and Fishway



Heuvelton Dam



Heuvelton Dam, Powerhouse, and Fishway



Heuvelton Unit 1



Heuvelton Unit 2



Eel Weir Dam and Powerhouse (Pre-Fishway Construction)



Eel Weir Dam and Fishway



Eel Weir Unit 1

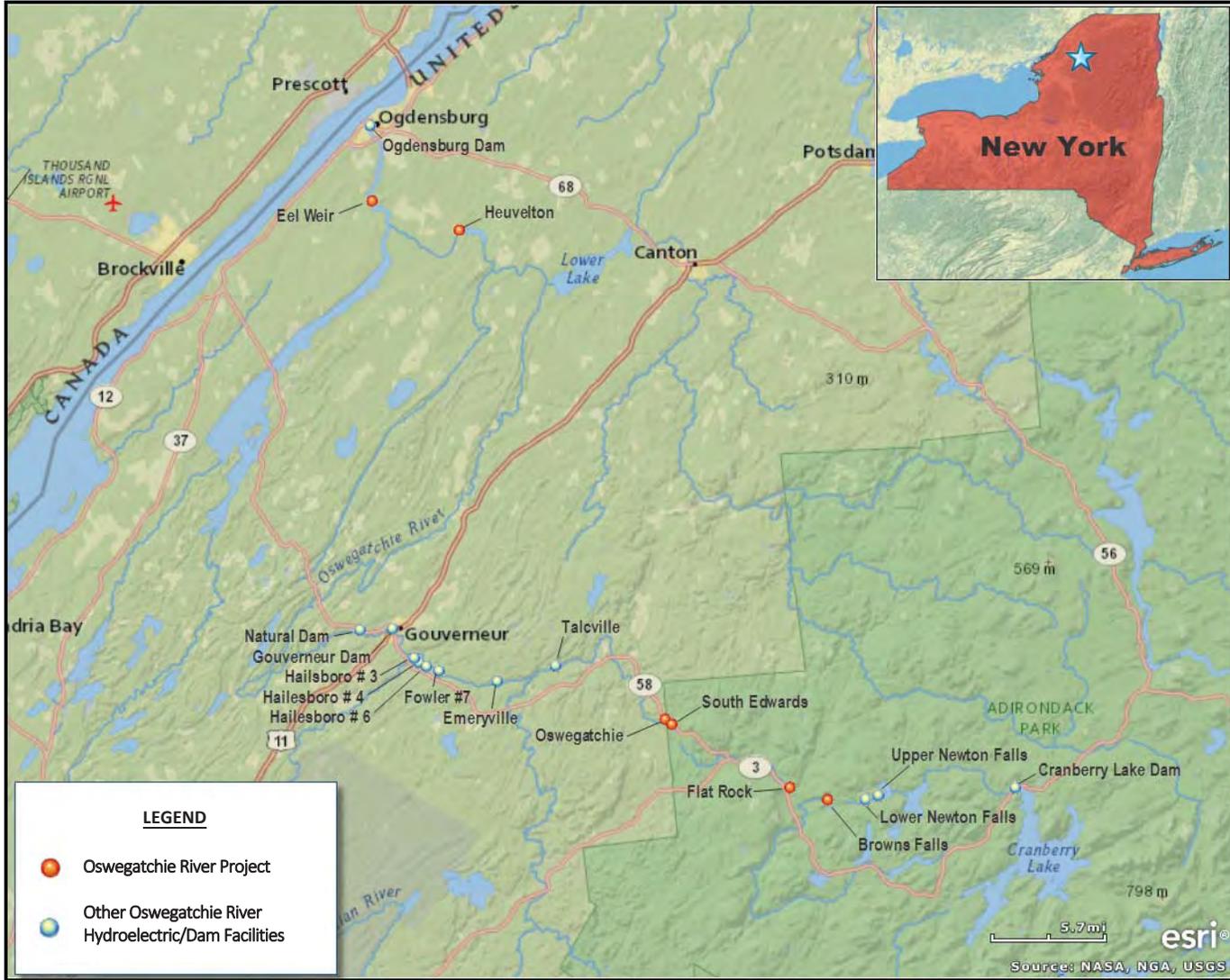


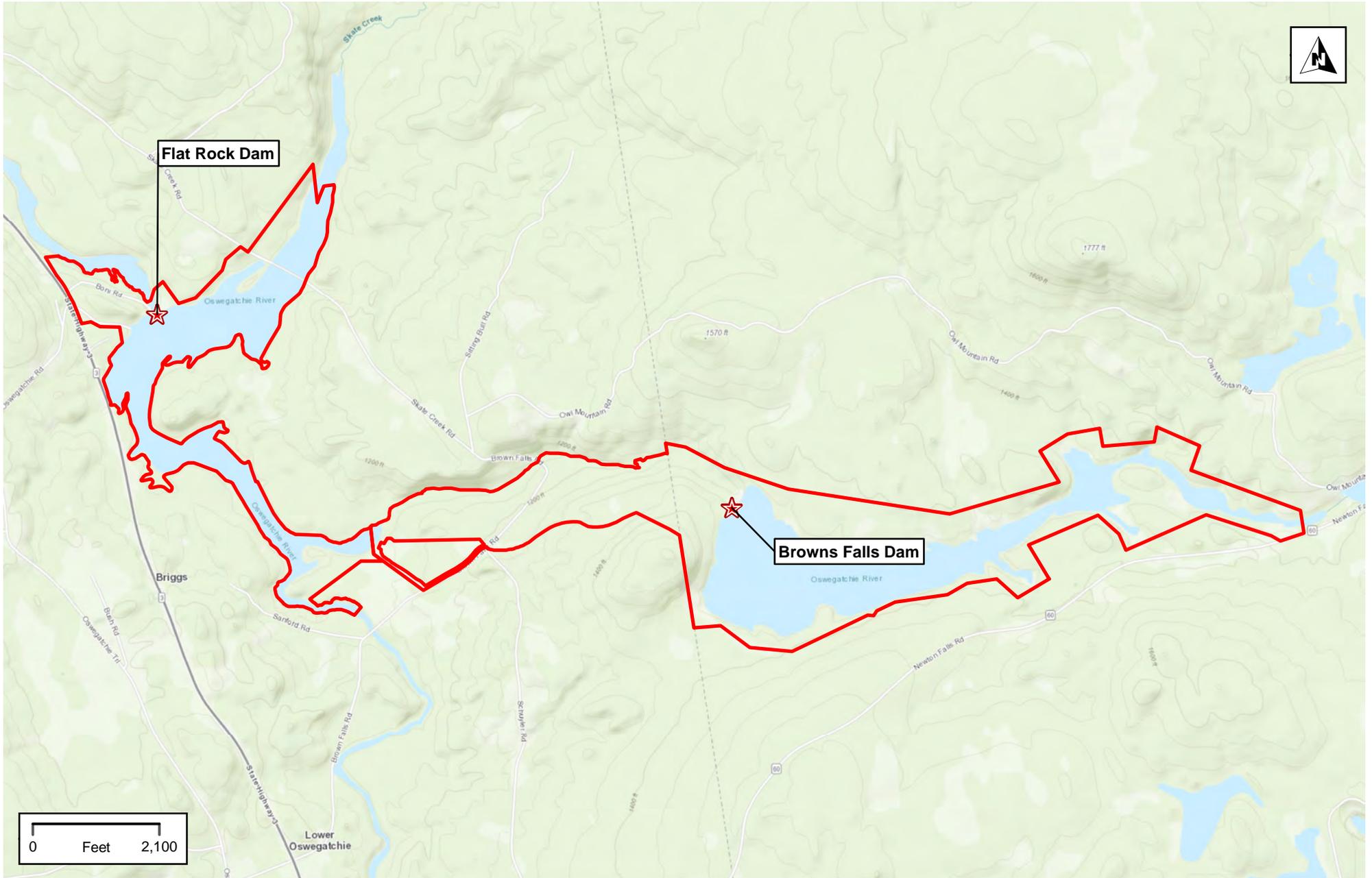
Eel Weir Unit 2

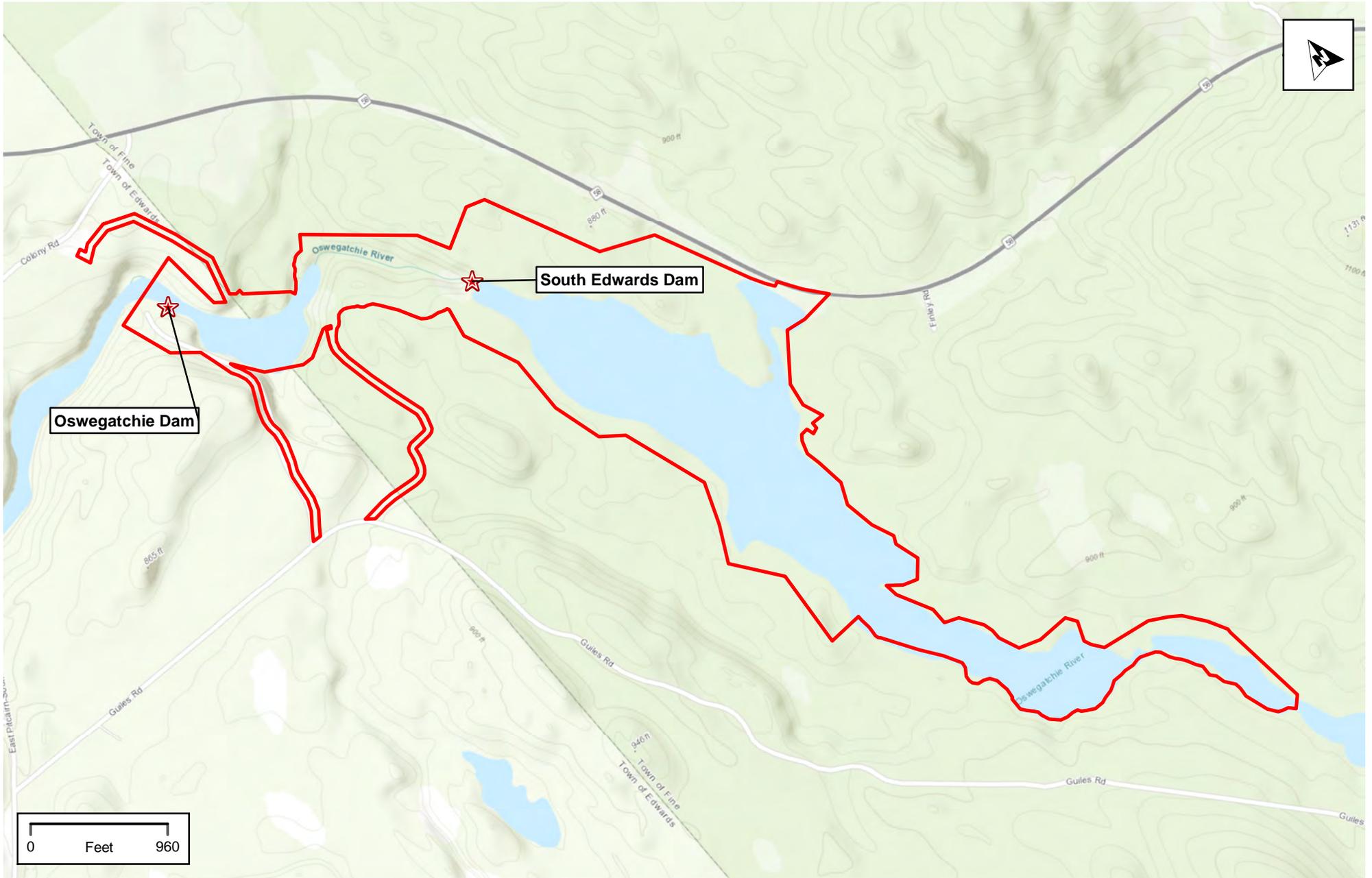


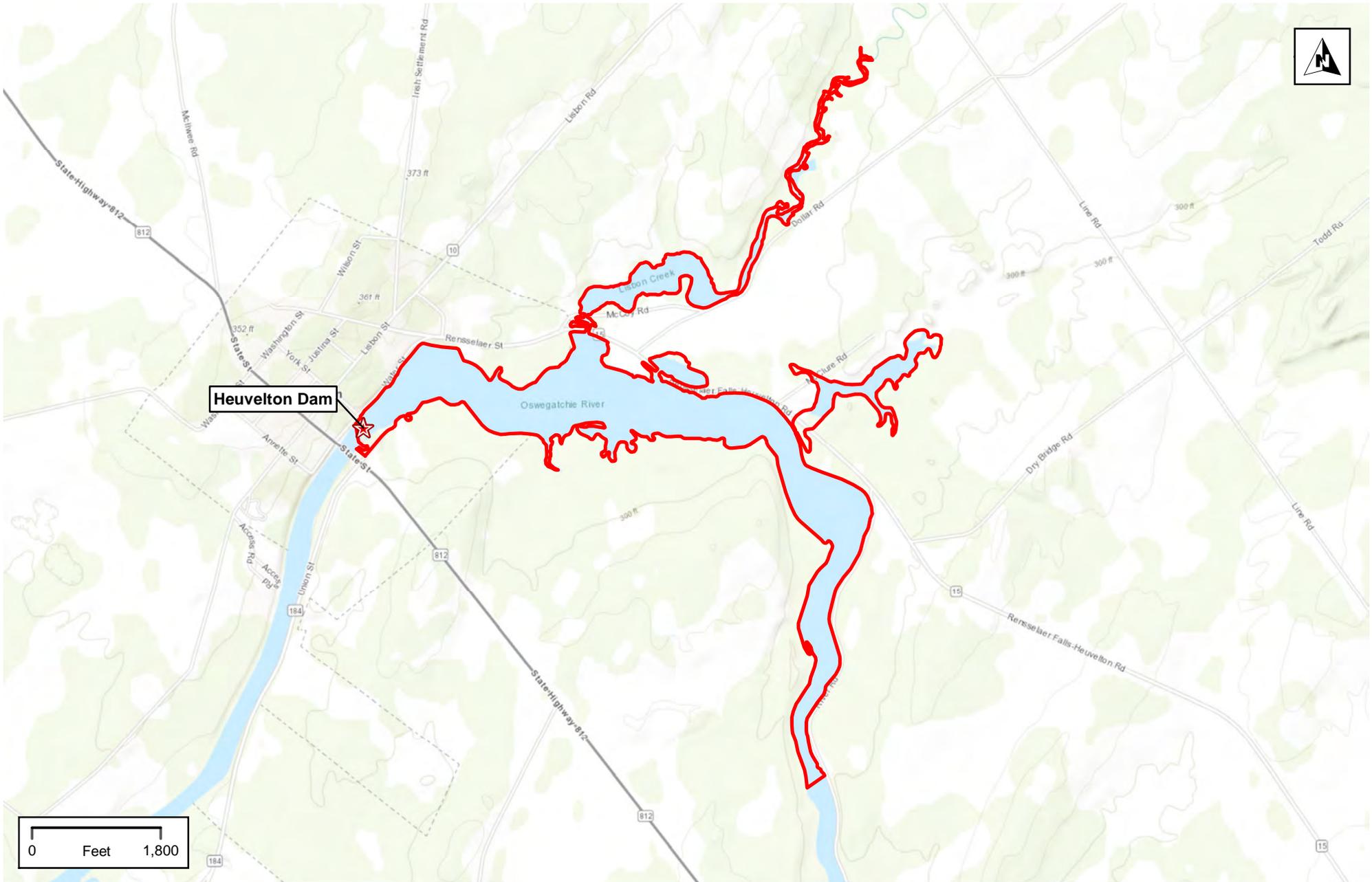
Eel Weir Unit 3

APPENDIX C
PROJECT MAPS AND AERIALS

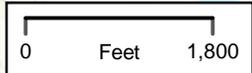








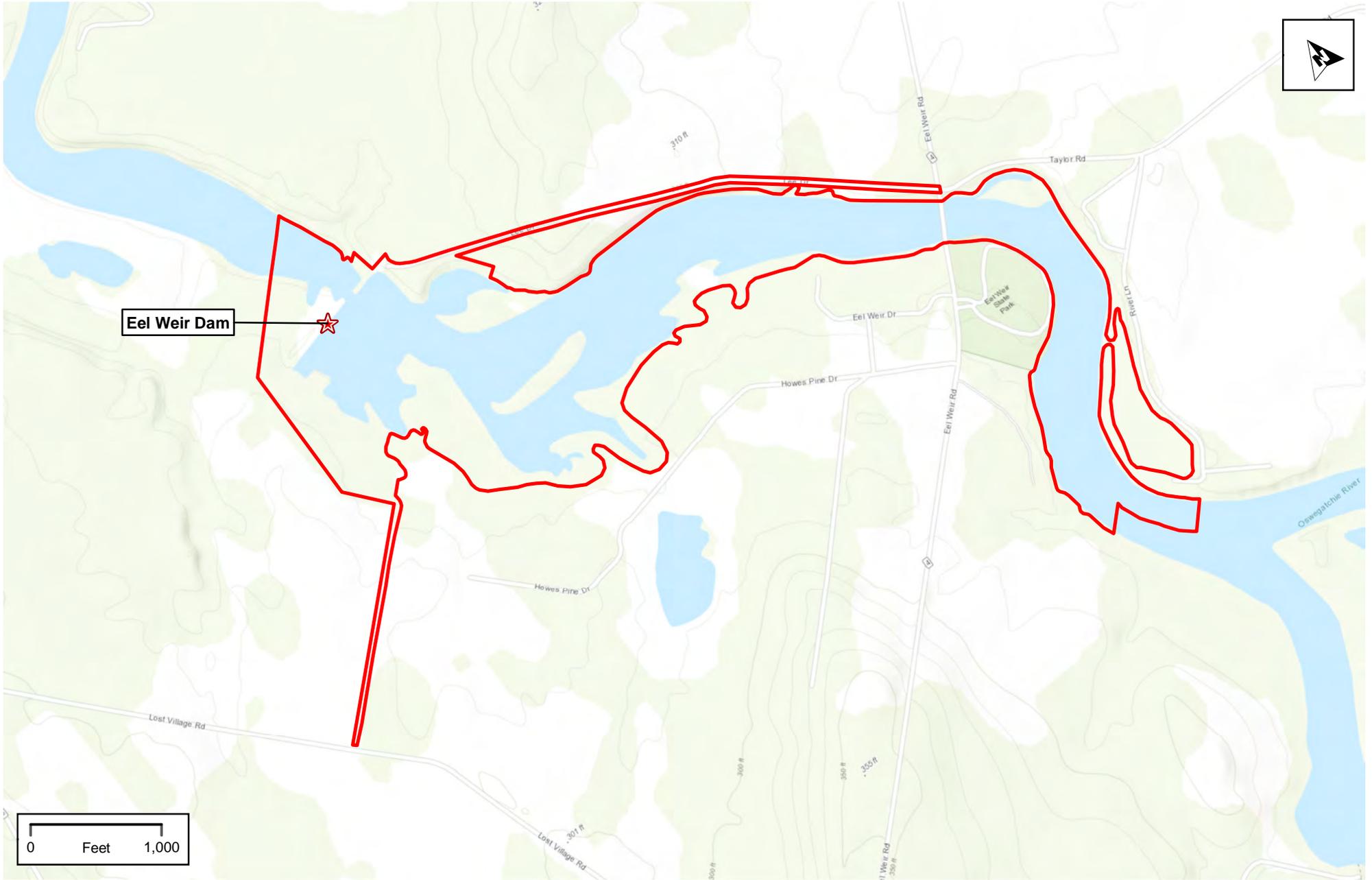
Heuvelton Dam



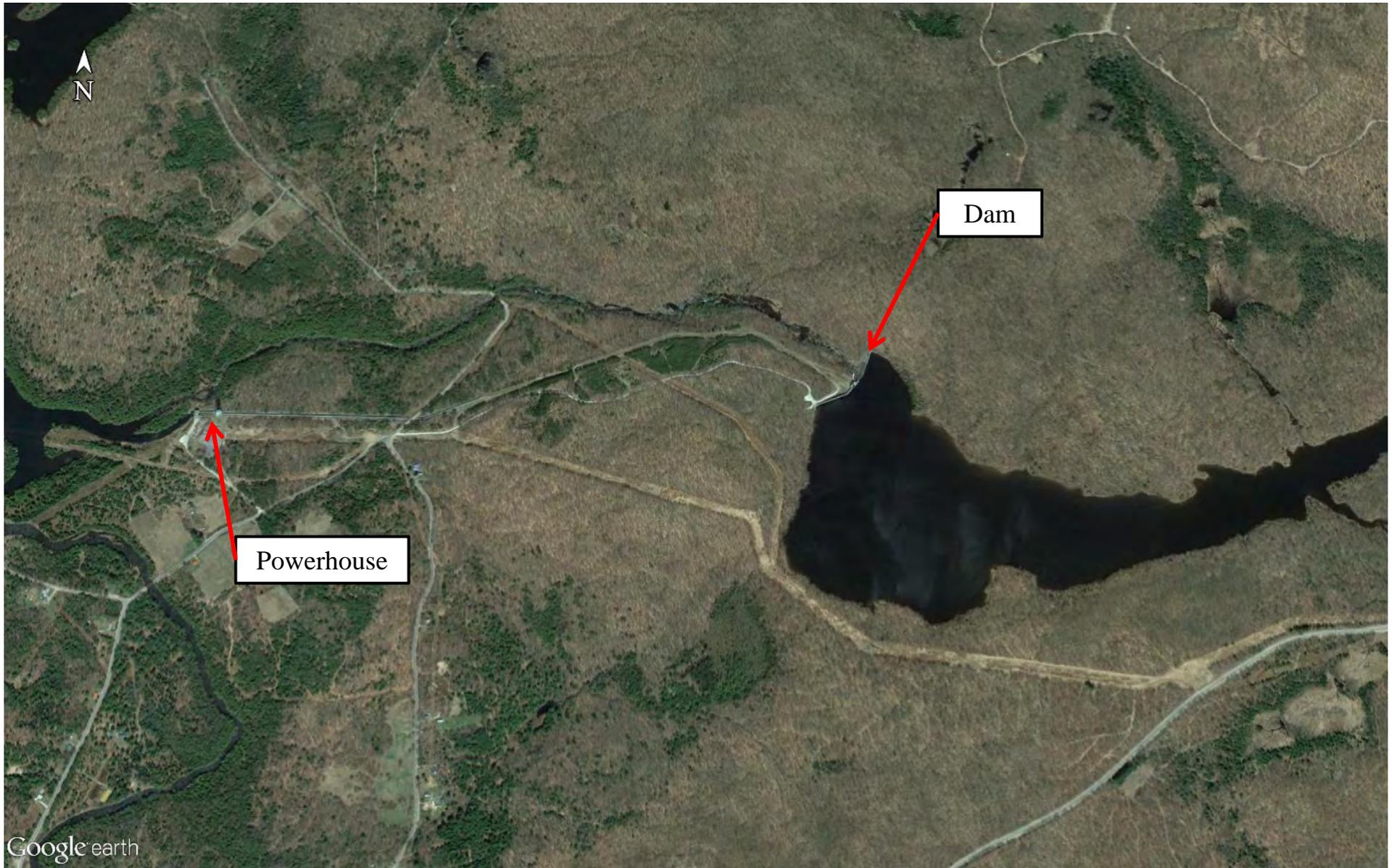
★ Project Location □ Project Boundary

**PROJECT BOUNDARY
OSWEGATCHIE DEVELOPMENTS**

FIGURE 3 OF 4



APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN
BROWNS FALLS DEVELOPMENT



APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN
FLAT ROCK DEVELOPMENT



APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN
SOUTH EDWARDS DEVELOPMENT



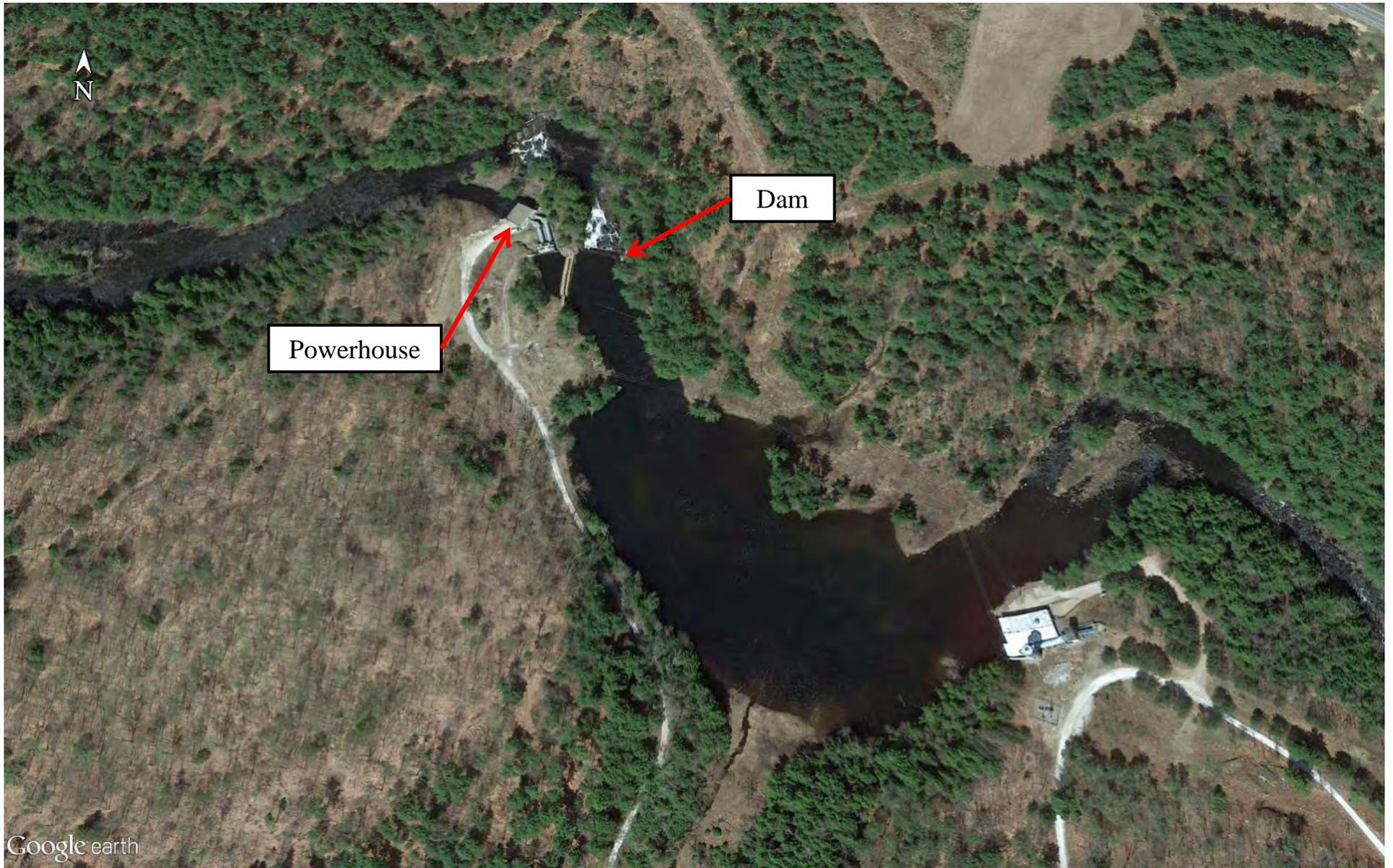
N

Dam

Powerhouse

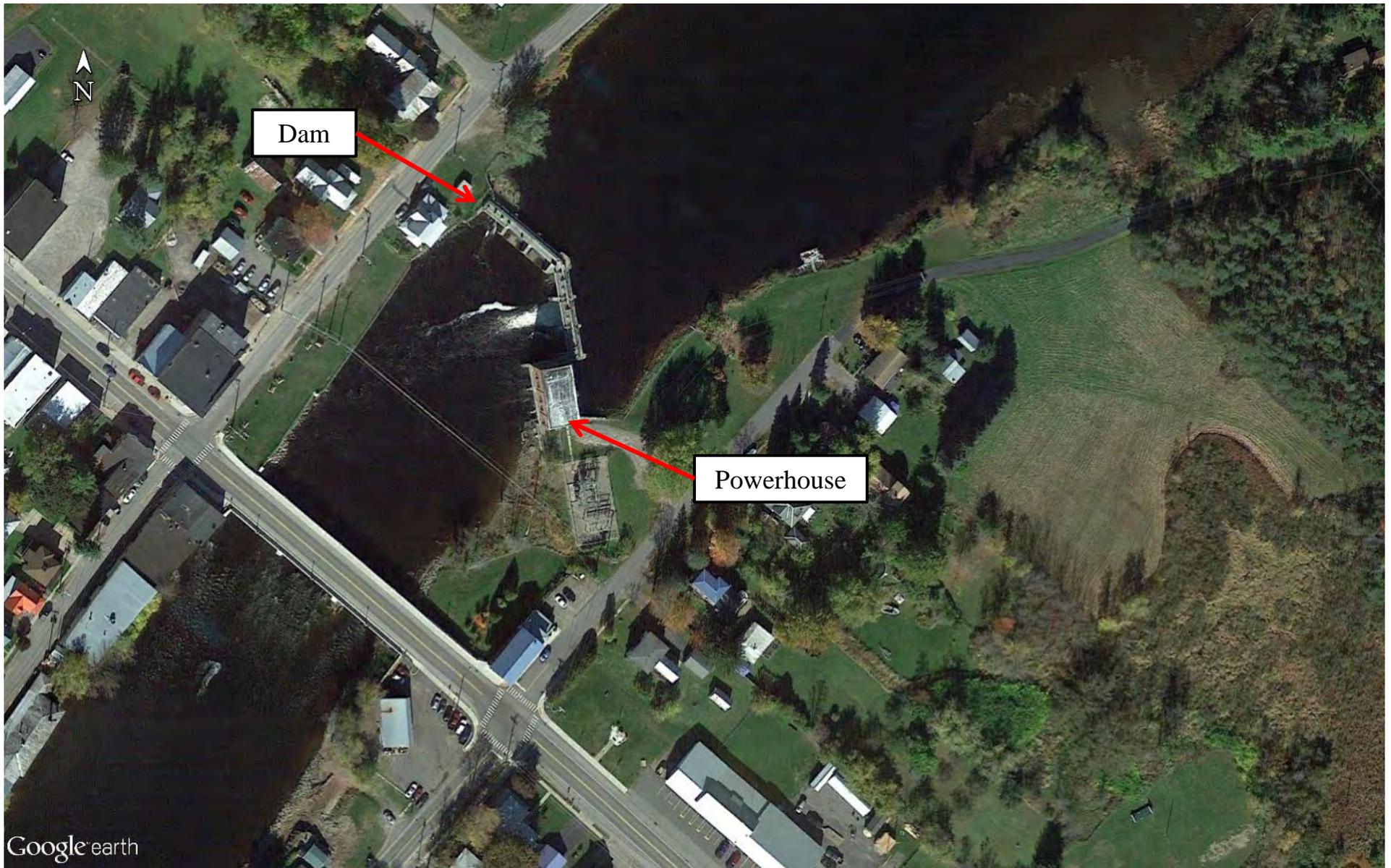
Google earth

APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN
OSWEGATCHIE DEVELOPMENT



APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN

HEUVELTON DEVELOPMENT



APPENDIX C – MAPS AND AERIAL PHOTOS OF FACILITY AREA AND RIVER BASIN

EEL WEIR DEVELOPMENT



APPENDIX D

401 WATER QUALITY CERTIFICATION CONSULTATION

Submitted Electronically only

January 3, 2019

Ms. Jessica Hart
New York State Department of Environmental Conservation
317 Washington Street
Watertown, NY 13601

Subject: **Oswegatchie River Hydroelectric Project (FERC No. 2713)
Low Impact Hydropower Institute Certification
Water Quality Certificate Verification**

Dear Ms. Hart:

Erie Boulevard Hydropower, L.P. (Erie) is applying for Low Impact Hydropower Institute (LIHI) certification for the Oswegatchie River Hydroelectric Project (FERC No. 2713). This Project is comprised of six hydroelectric developments located at six dams along the Oswegatchie River in St. Lawrence County. From upstream to downstream, these are the Browns Falls (River Mile [RM] 96.9), Flat Rock (RM 95.5), South Edwards (RM 87.1), Oswegatchie (RM 86.6), Heuvelton (RM 12.0), and Eel Weir (RM 5.1) developments.

Erie is requesting confirmation from the New York State Department of Environmental Conservation stating that the 401 Water Quality Certificate issued for the operation of the Oswegatchie River Project on October 24, 2012 is still valid. Please provide this confirmation by reply to this letter via letter or email.

Erie respectfully requests a response within 30 days of the date of this letter. Thank you in advance for your assistance, and if you have any questions, please do not hesitate to contact me at (315) 267-1036 or by email at Danny.Maguire@brookfieldrenewable.com.

Sincerely,



Daniel Maguire, P.E.
Compliance Manager
North Atlantic Operations

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, Bureau of Ecosystem Health, Region 6

Dulles State Office Building, 317 Washington Street, Watertown, NY 13601-3787

P: (315) 785-2263 | F: (315) 785-2242

www.dec.ny.gov

1-14-2018

Daniel Maguire, P. E.
Compliance Manager
North Atlantic Operations
Brookfield Renewable
184 Elm Street
Potsdam NY 13676

Re: Oswegatchie River Hydroelectric project (FERC No. 2713) LIHI Re-Certification
Water Quality Certificate Verification.

Dear Mr. Maguire

The current 401 water quality certification issued by the NYSDEC on October 24, 2012 for the operation of the Oswegatchie river hydroelectric projects (FERC No. 2713) is still valid.

If you have any questions, please do not hesitate to contact me at 315-785-2293

Sincerely,



Stephanie Larkin

Biologist

NYSDEC - Reg 6

Stephanie.Larkin@dec.ny.gov



Department of
Environmental
Conservation

APPENDIX E

RARE, THREATENED AND ENDANGERED SPECIES CONSULTATION



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

January 31, 2019

Consultation Code: 05E1NY00-2019-SLI-0793

Event Code: 05E1NY00-2019-E-02516

Project Name: Oswegatchie River Project - Browns Falls & Flat Rock

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>)

[eagle_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-0793

Event Code: 05E1NY00-2019-E-02516

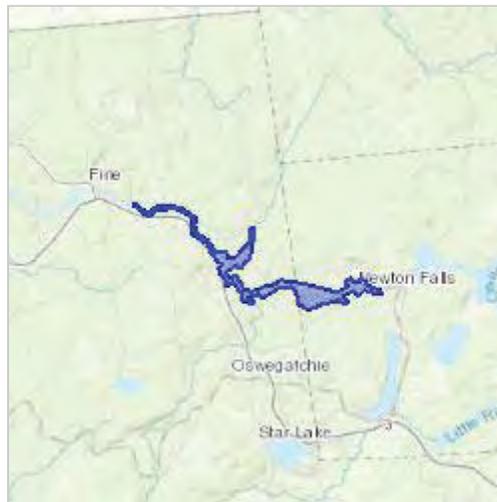
Project Name: Oswegatchie River Project - Browns Falls & Flat Rock

Project Type: DAM

Project Description: The Oswegatchie River Hydroelectric Project (FERC No. 2713) consists of six developments along the Oswegatchie River, located within St. Lawrence, New York. Progressing downstream, these are the Browns Falls (RM 96.9), Flat Rock (95.5), South Edwards (RM 87.1), Oswegatchie (RM 86.6), Heuvelton (RM 12.0), and Eel Weir (RM 5.1) developments. The Oswegatchie River Project is applying to the Low Impact Hydropower Institute (LIHI) for a certification of their project and is looking for information regarding rare, threatened or endangered species that may occur in the project area. LIHI requires documentation of a finding of no negative effects or documentation that the facility is in compliance with relevant conditions in the species recovery plans. This RTE request is specific to two of the developments included in the Oswegatchie River Project (Browns Falls and Flat Rock).

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/44.22363249687449N75.07670328395085W>



Counties: St. Lawrence, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

January 31, 2019

Consultation Code: 05E1NY00-2019-SLI-0792

Event Code: 05E1NY00-2019-E-02514

Project Name: Oswegatchie River Project - South Edwards & Oswegatchie

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>)

[eagle_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-0792

Event Code: 05E1NY00-2019-E-02514

Project Name: Oswegatchie River Project - South Edwards & Oswegatchie

Project Type: DAM

Project Description: The Oswegatchie River Hydroelectric Project (FERC No. 2713) consists of six developments along the Oswegatchie River, located within St. Lawrence, New York. Progressing downstream, these are the Browns Falls (RM 96.9), Flat Rock (95.5), South Edwards (RM 87.1), Oswegatchie (RM 86.6), Heuvelton (RM 12.0), and Eel Weir (RM 5.1) developments. The Oswegatchie River Project is applying to the Low Impact Hydropower Institute (LIHI) for a certification of their project and is looking for information regarding rare, threatened or endangered species that may occur in the project area. LIHI requires documentation of a finding of no negative effects or documentation that the facility is in compliance with relevant conditions in the species recovery plans. This RTE request is specific to two of the developments included in the Oswegatchie River Project (South Edwards and Flat Oswegatchie).

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/44.27782348848024N75.22082832105758W>



Counties: St. Lawrence, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

January 31, 2019

Consultation Code: 05E1NY00-2019-SLI-0791

Event Code: 05E1NY00-2019-E-02512

Project Name: Oswegatchie River Project - Heuvelton & Eel Weir

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>)

[eagle_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-0791

Event Code: 05E1NY00-2019-E-02512

Project Name: Oswegatchie River Project - Heuvelton & Eel Weir

Project Type: DAM

Project Description: The Oswegatchie River Hydroelectric Project (FERC No. 2713) consists of six developments along the Oswegatchie River, located within St. Lawrence, New York. Progressing downstream, these are the Browns Falls (RM 96.9), Flat Rock (95.5), South Edwards (RM 87.1), Oswegatchie (RM 86.6), Heuvelton (RM 12.0), and Eel Weir (RM 5.1) developments. The Oswegatchie River Project is applying to the Low Impact Hydropower Institute (LIHI) for a certification of their project and is looking for information regarding rare, threatened or endangered species that may occur in the project area. LIHI requires documentation of a finding of no negative effects or documentation that the facility is in compliance with relevant conditions in the species recovery plans. This RTE request is specific to two of the developments included in the Oswegatchie River Project (Heuvelton and Eel Weir).

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/44.636784548908366N75.48826510499096W>



Counties: St. Lawrence, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Caley, Katherine

From: naturalheritage@nynhp.org
Sent: Thursday, January 03, 2019 7:06 PM
To: Caley, Katherine
Subject: Confirmation of your submitted request to New York Natural Heritage

Submission ID: 2905
Submitted on Thursday, January 3, 2019 - 19:05 Submitted values are:

Company, Organization, or Agency: HDR, Inc.
Requestor Name: Katherine Caley
Requestor Address (Street/PO Box): 1304 Buckley Road, Suite 202 Requestor City: Syracuse Requestor State: New York
Requestor Zip Code: 13212 Requestor Telephone #: 315-414-2213 Requestor Email: Katherine.Caley@hdrinc.com Project
Type: hydroelectric facility/project Project Name: Browns Falls & Flat Rock LIHI Consultation Project Applicant: Erie
Boulevard Hydropower Project County: St Lawrence Town (St Lawrence County):
- Clifton
- Fine

Project Summary:

Erie is presently working with the Low Impact Hydropower Institute (LIHI) to certify the Oswegatchie Hydroelectric Project (FERC No. 2713) as a low impact project. In preparing the application for LIHI certification, Erie must update or confirm consultation with resource agencies with respect to the presence of threatened or endangered species within the vicinity of the hydroelectric developments. Per the request from LIHI, Erie respectfully requests information on the presence of threatened or endangered species within the vicinity of the Browns Falls and Flat Rock developments.

As a matter of background, the license from the Federal Energy Regulatory Commission (FERC) was issued for this Project on November 26, 2012. Project operations and environmental protection measures at this Project have been largely determined by a comprehensive Offer of Settlement that Erie developed in conjunction with the New York State Department of Environmental Conservation and other entities in 2010. The licensing processes for this Project included consultation with resource agencies regarding threatened and endangered species.

Current Land Use: The site is currently developed for the primary purpose of hydroelectric energy production on the Oswegatchie River.

Tax parcel number:

Latitude: 44.212

Longitude: -75.037

Street Address of Project:

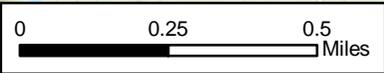
Project Notes:



Browns Falls Dam
75° 2' 14.36" W
44° 12' 44.56" N



USGS QUAD MAPS: Oswegatchie and Newton Falls



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

January 30, 2019

Katherine Caley
HDR, Inc.
1304 Buckley Road, Suite 202
Syracuse, NY 13212

Re: Browns Falls & Flat Rock LIHI Consultation
County: St Lawrence Town/City: Clifton, Fine

Dear Ms. Caley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 6 Office, Division of Environmental Permits at dep.r6@dec.ny.gov, (315) 785-2245.

Sincerely,



Heidi Krahlting
Environmental Review Specialist
New York Natural Heritage Program



The following rare animal and significant natural community have been documented in the vicinity of the project.

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQ. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animal, while not listed by New York State as Endangered or Threatened, is rare in New York and is of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Common Loon <i>Breeding</i>	<i>Gavia immer</i>	Special Concern	
Documented in the Oswegatchie River Reservoir, within 0.5 mile east of the eastern edge of the project site. 1985-07-29: The loons were observed on two large water bodies connected by a narrow section approximately 0.7 mi long. A dam is at the west end.			5294

The following natural community is considered significant from a statewide perspective by the NY Natural Heritage Program. By meeting specific, documented criteria, the NY Natural Heritage Program considers this community occurrence to have high ecological and conservation value.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Maple-Basswood Rich Mesic Forest			High Quality Occurrence of Uncommon Community Type
Documented at the western edge of the project site. This is an enormous matrix forest occurrence with both maturing and apparently mature patches, including very large, moderately protected, little disturbed sub-occurrences with excellent biotic diversity. The forest is located near the edge of, but remains generally well connected to, its moderately large, locally intact, remote forest landscapes. Exotic species are essentially lacking but many unnatural disturbances and displacements are present.			7316

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA’s Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage’s Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

Caley, Katherine

From: naturalheritage@nynhp.org
Sent: Thursday, January 03, 2019 7:14 PM
To: Caley, Katherine
Subject: Confirmation of your submitted request to New York Natural Heritage

Submission ID: 2906
Submitted on Thursday, January 3, 2019 - 19:13 Submitted values are:

Company, Organization, or Agency: HDR, Inc.
Requestor Name: Katherine Caley
Requestor Address (Street/PO Box): 1304 Buckley Road, Suite 202 Requestor City: Syracuse Requestor State: New York
Requestor Zip Code: 13212 Requestor Telephone #: 315-414-2213 Requestor Email: Katherine.Caley@hdrinc.com Project
Type: hydroelectric facility/project Project Name: South Edwards & Oswegatchie LIHI Consultation Project Applicant: Erie
Boulevard Hydropower Project County: St Lawrence Town (St Lawrence County):

- Edwards
- Fine

Project Summary:

Erie is presently working with the Low Impact Hydropower Institute (LIHI) to certify the Oswegatchie Hydroelectric Project (FERC No. 2713) as a low impact project. In preparing the application for LIHI certification, Erie must update or confirm consultation with resource agencies with respect to the presence of threatened or endangered species within the vicinity of the hydroelectric developments. Per the request from LIHI, Erie respectfully requests information on the presence of threatened or endangered species within the vicinity of the South Edwards and Oswegatchie developments.

As a matter of background, the license from the Federal Energy Regulatory Commission (FERC) was issued for this Project on November 26, 2012. Project operations and environmental protection measures at this Project have been largely determined by a comprehensive Offer of Settlement that Erie developed in conjunction with the New York State Department of Environmental Conservation and other entities in 2010. The licensing processes for this Project included consultation with resource agencies regarding threatened and endangered species.

Current Land Use: The site is currently developed for the primary purpose of hydroelectric energy production on the Oswegatchie River.

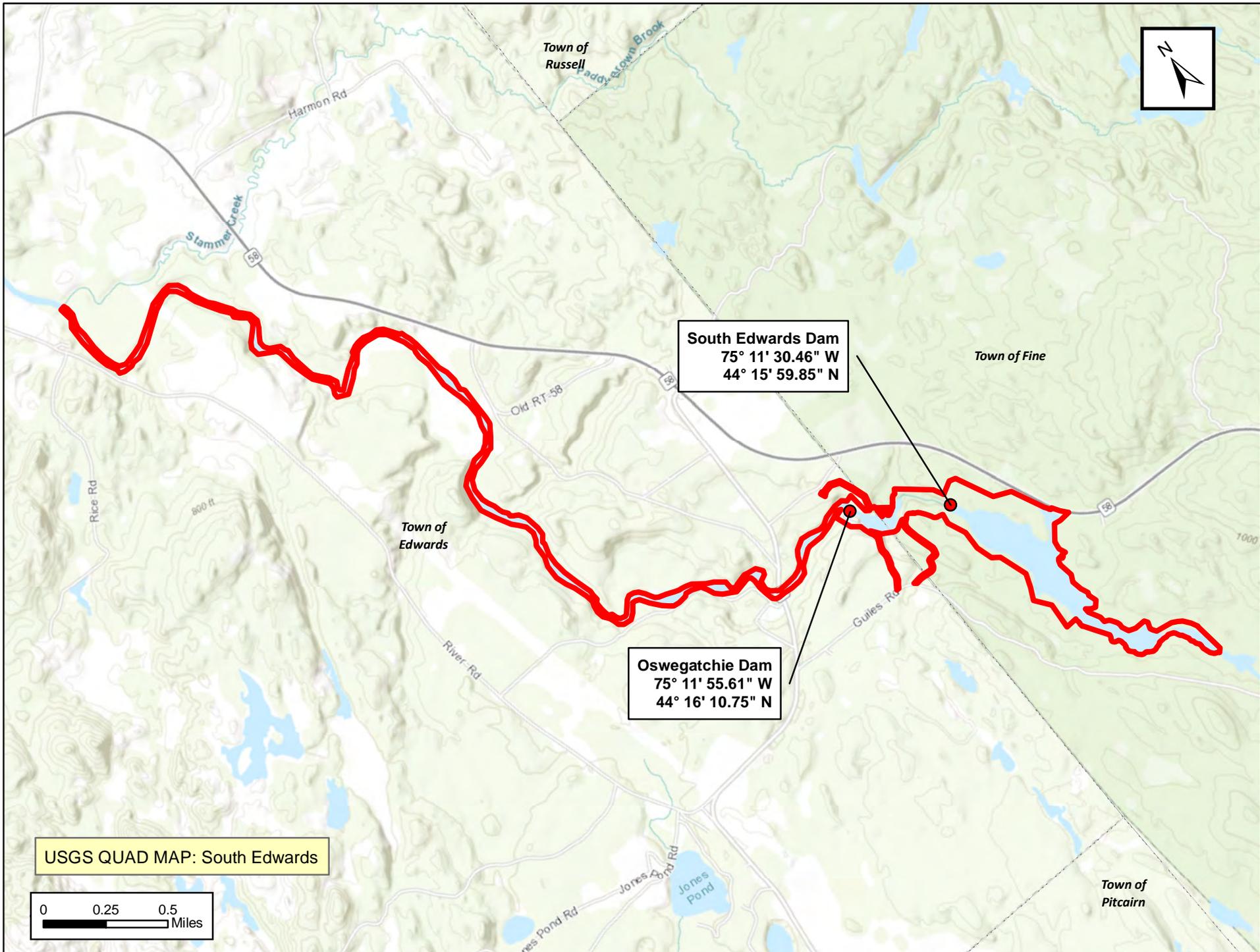
Tax parcel number:

Latitude: 44.270

Longitude: -75.199

Street Address of Project:

Project Notes:



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

January 31, 2019

Katherine Caley
HDR, Inc.
1304 Buckley Road, Suite 202
Syracuse, NY 13212

Re: South Edwards & Oswegatchie LIHI Consultation
County: St. Lawrence Town/City: Edwards, Fine

Dear Ms. Caley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 6 Office, Division of Environmental Permits at dep.r6@dec.ny.gov, (315) 785-2245.

Sincerely,



Heidi Kraehling
Environmental Review Specialist
New York Natural Heritage Program



The following significant natural community has been documented in the vicinity of the project site.

We recommend that potential impacts of the proposed project on this community be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following natural community is considered significant from a statewide perspective by the NY Natural Heritage Program. By meeting specific, documented criteria, the NY Natural Heritage Program considers this community occurrence to have high ecological and conservation value.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Upland/Terrestrial Communities			
Maple-Basswood Rich Mesic Forest			High Quality Occurrence of Uncommon Community Type
<p>Documented along either side of the Oswegatchie River at the eastern edge of the project site. This is an enormous matrix forest occurrence with both maturing and apparently mature patches, including very large, moderately protected, little disturbed sub-occurrences with excellent biotic diversity. The forest is located near the edge of, but remains generally well connected to, its moderately large, locally intact, remote forest landscapes. Exotic species are essentially lacking but many unnatural disturbances and displacements are present.</p>			7316

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

Caley, Katherine

From: naturalheritage@nynhp.org
Sent: Thursday, January 03, 2019 7:20 PM
To: Caley, Katherine
Subject: Confirmation of your submitted request to New York Natural Heritage

Submission ID: 2907
Submitted on Thursday, January 3, 2019 - 19:19 Submitted values are:

Company, Organization, or Agency: HDR, Inc Requestor Name: Katherine Caley Requestor Address (Street/PO Box): 1304 Buckley Road, Suite 202 Requestor City: Syracuse Requestor State: New York Requestor Zip Code: 13212 Requestor Telephone #: 315-414-2213 Requestor Email: Katherine.Caley@hdrinc.com Project Type: hydroelectric facility/project Project Name: Huevelton & Eel Weir LIHI Consultation Project Applicant: Erie Boulevard Hydropower Project County: St Lawrence Town (St Lawrence County):

- De Peyster
- Oswegatchie

Project Summary:

Erie is presently working with the Low Impact Hydropower Institute (LIHI) to certify the Oswegatchie Hydroelectric Project (FERC No. 2713) as a low impact project. In preparing the application for LIHI certification, Erie must update or confirm consultation with resource agencies with respect to the presence of threatened or endangered species within the vicinity of the hydroelectric developments. Per the request from LIHI, Erie respectfully requests information on the presence of threatened or endangered species within the vicinity of the Heuvelton and Eel Weir developments.

As a matter of background, the license from the Federal Energy Regulatory Commission (FERC) was issued for this Project on November 26, 2012. Project operations and environmental protection measures at this Project have been largely determined by a comprehensive Offer of Settlement that Erie developed in conjunction with the New York State Department of Environmental Conservation and other entities in 2010. The licensing processes for this Project included consultation with resource agencies regarding threatened and endangered species.

Current Land Use: The sites are currently developed for the primary purpose of hydroelectric energy production on the Oswegatchie River.

Tax parcel number:

Latitude: 44.618

Longitude: -75.404

Street Address of Project:

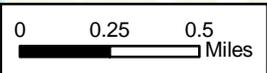
Project Notes:



Town of Lisbon

Heuvelton Dam
75° 24' 15.82" W
44° 37' 3.95" N

USGS QUAD MAP: Heuvelton



Highway 812

Delaney Rd

McIntyre Rd

McGowan Rd



Sheddy Hollow Ln

Black Lake Rd

Town of Oswegatchie

Simms Camp Rd

Simms Grove Rd

McIntyre Rd

Taylor Rd

Monkey Hill Rd

331 ft

334 ft

Oswegatchie River

Eel Weir Dr

Eel Weir State Park

47 Lane

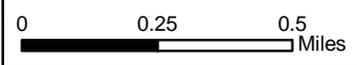
Eel Weir Dam
75° 29' 31.18" W
44° 38' 17.66" N

Houses Pine Dr

300 ft

305 ft

USGS QUAD MAP: Ogdensburg East



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

January 31, 2019

Katherine Caley
HDR, Inc
1304 Buckley Road, Suite 202
Syracuse, NY 13212

Species and confidential locational data redacted from public version of the application.

Re: Huevelton & Eel Weir LIH Consultation
County: St Lawrence Town/City: De Peyster, Oswegatchie

Dear Ms. Caley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 6 Office, Division of Environmental Permits at dep.r6@dec.ny.gov, (315) 785-2245.

Sincerely,



Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program