Newton Falls Hydroelectric Project

Recertification Application to the Low Impact Hydropower Institute

LIHI #32 and FERC Project No. 7000

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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 recertification of the Newton Falls Project (LIHI #32), subsequent to a previous LIHI certification that expires November 2, 2017. The Newton Falls Project consists of two developments (Upper Newton Falls and Lower Newton Falls), which are located on the Oswegatchie River in the Town of Clifton, St. Lawrence County, New York. There have been no material changes in the facility design or operation since the most recent LIHI review that was concluded in December 2012 (see letter from LIHI reviewer Patricia McIlvaine on 12/29/2012[1]). There also have been no material changes in the environmental conditions in the Project vicinity since that most recent LIHI review. The only material changes that have occurred recently are in the revised LIHI certification criteria described in the 2016 version of LIHI's certification handbook.

Erie has reviewed the Project description for the Newton Falls Project that is posted on the LIHI website and determined that it is an accurate representation of the subject Project. The information provided in this recertification application provides an update to support a new LIHI certification.

[1] http://lowimpacthydro.org/assets/files/Newton%20Falls%20Recertification%20Letter%20122912.pdf

PART I. FACILITY DESCRIPTION

The key features of the Newton Falls Hydroelectric Project are described in Tables I-1 and I-2. A description of the Project can be found on the LIHI website at http://lowimpacthydro.org/lihi-certificate-32-newton-falls-project-new-york-ferc-7000/.

Table I-1. Facility Description Information for the Upper Newton Falls Development of the Newton Falls Project (LIHI #32).

Information Type	***Facility Description***	***Response(and reference to further details)***
Name of the Facility	Facility name (use FERC project name if possible)	Newton Falls Project (FERC No. 7000) *Upper Newton Falls Development*
Location	River name (USGS proper name)	Oswegatchie River
	River basin name	Oswegatchie River Basin
	Nearest town, county, and state	Clifton, St. Lawrence County, New York
	River mile of dam above next major river	River Mile 99.6
	Geographic Latitude	44.2147 N
	Geographic Longitude	-74.9869 W
Facility Owner	Application contact names (IMPORTANT: you must also complete the Facilities Contact Form):	See Part V of the LIHI certification application for more information.
	- Facility owner (individual and company names)	Erie Boulevard Hydropower, L.P.
	- Operating affiliate (if different from owner)	Same as above
	- Representative in LIHI certification	Daniel J. Maguire, P.E., Compliance Specialist
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates	FERC Project Number 7000 New license issued on August 13, 2003. The Newton Falls Settlement Agreement dated, July 15, 2002 was filed with FERC on July 16, 2002. License expires on January 31, 2044.
	FERC license type or special classification (e.g., "qualified conduit")	License for major project (<5MW)
	Water Quality Certificate identifier and issuance date, plus source agency name	The Section 401 Water Quality Certificate (WQC) was issued by the New York State

		Department of Environmental Conservation (NYSDEC) on December 20, 2002 and adopted into Article 401 of the FERC License.
	Hyperlinks to key electronic records on FERC e-library website (e.g., most recent Commission Orders, WQC, ESA documents, etc.)	July 16, 2002 Settlement Agreement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=1047240 December 20, 2002 401 WQC: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341 May 27, 2003 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10450341 August 13, 2003 License Order: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=9786914 November 21, 2011 FERC Environmental Inspection Report: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12801878
Power Plant Character-istics	Date of initial operation (past or future for operational applications)	The Newton Falls Project began operation in 1927.
	Total name-plate capacity (MW)	Newton Falls Project: *Upper Newton Falls Development:* 1.54 MW *Lower Newton Falls Development:* 680kW **Total installed capacity: 2.22 MW**
	Average annual generation (MWh)	The average annual generation is estimated at 9,500 MWh in the 2003 license. Actual annual generation is filed with the FERC each year. The average generation from 2011 to 2016 is 8,982 MWh.
	Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit	Generating Units: 3 Type: James Leffel & Company vertical Francis turbines Description of Turbines:

		Unit 2 = Design capacity of 800 HP at a design head of 48 feet and a speed of 400 rpm Unit 3 = Design capacity of 800 HP at a design head of 48 feet and a speed of 400 rpm Unit 4 = Design capacity of 450 HP at a design head of 48 feet and a speed of 514 rpm Maximum Capacity: Unit 2 = 182 cfs Unit 3 = 182 cfs Unit 4 = 100 cfs Minimum Capacity: Unit 2 = 80 cfs Unit 3 = 80 cfs Unit 4 = 50 cfs
	Modes of operation (run-of-river, peaking, pulsing, seasonal storage, etc.)	The Upper Newton Falls Development is licensed to operate in a storage and release peaking mode with a 1-foot maximum drawdown allowed (per license order). A seasonal drawdown of 0.5-foot is required from May 1 – July 15.
	Dates and types of major equipment upgrades	In 2016, Unit No. 2 received a complete generator rewind and a new turbine. The turbine was replaced-in-kind and therefore, did not result in a change in the hydraulic capacity.
	Dates, purpose, and type of any recent operational changes	There have been no recent operational changes at the Project.
	Plans, authorization, and regulatory activities for any facility upgrades	There are no plans for any facility upgrades at the Project.
Character-istics of Dam, Diversion, or Conduit	Date of construction	The Upper Newton Falls Development was constructed in 1927.
	Dam height	50 feet
	Spillway elevation and hydraulic capacity	Spillway Elevation: 1421.0 ft msl Flashboards: 2.3 feet high Hydraulic Capacity: 1,732 cfs, without flashboards, at elevation 1425.0 ft msl (top of right non-overflow section)
	Tailwater elevation	1406.5 ft msl

	Length and type of all penstocks and water conveyance structures between reservoir and powerhouse	Water is conveyed from the dam to the powerhouse via a 1,200-foot-long wood stave penstock. Along the penstock is a surge tank located upstream of the penstock trifurcation into the powerhouse.
	Dates and types of major, generation-related infrastructure improvements	The construction and major events/alterations/repairs to the Project are listed as follows: • Late 1920s - The Newton Falls Project was constructed. Both the upper and lower dams replaced timber crib dams originally constructed around 1895. The only construction related records available are circa 1926-1927 and consist of communications between the design engineer (W.H. Cushman) and the Office of the State Engineer. There are no other construction records available or information regarding rehabilitative work prior to 1985, although field inspections indicate that both dams had received shotcrete surface coatings. • 1986 - Replacement of the 9-foot-diameter wood-stave penstock with a new wood-stave penstock with timber supports. The surge tank dish was replaced and the entire surge tank painted. Deteriorated concrete near the normal pool water level inside the hydro intake structure was rehabilitated. • 1989 - Upper Dam rehabilitation including construction of a 5-foot-high concrete parapet wall on the south non-overflow wall, repair of deteriorated concrete surfaces on the spillway, flood gate and south non-overflow sections, the installation of post-tensioned anchors in the spillway and flood gate sections, and replacement of flashboards.

		• 1999 - Repair of deteriorated concrete and undercutting of the toe of the left training wall downstream of the floodgate structure.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Upper Newton Falls Development is for power production.
	Water source	Oswegatchie River
	Water discharge location or facility	Oswegatchie River
Characte-ristics of Reservoir and Watershed	Gross volume and surface area at full pool	Volume: 5,930.0 acre-feet Surface Area: 650 acres
	Maximum water surface elevation (ft. MSL)	Maximum elevation with flashboards: 1423.3 ft msl
	Maximum and minimum volume and water surface elevations for designated power pool, if available	1423.3 feet maximum; 1422.3 feet minimum
	Upstream dam(s) by name, ownership, FERC number (if applicable), and river mile	Cranberry Lake Hydroelectric Project, Algonquin Power, FERC No. 9685, RM 108.8
	Downstream dam(s) by name, ownership, FERC number (if applicable), and river mile	Browns Falls Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 96.9 Flat Rock Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 95.5 South Edwards Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 87.1 Oswegatchie Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 86.6
	Operating agreements with upstream or downstream reservoirs that affect water availability, if any, and facility operation	The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development and is the principal storage facility in the Oswegatchie River Basin. The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made.

		Downstream of the Upper Newton Falls development are the Lower Newton Falls, Browns Falls and Flat Rock developments, which are all owned and operated by Erie. Erie's hydroelectric facilities are operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie's other hydroelectric facilities on the Oswegatchie River.
	Area inside FERC project boundary, where appropriate	The 650-acre reservoir is located entirely within the FERC Project boundary. Project lands within the Project boundary are less than one acre. See Appendix B for FERC project boundary.
Hydrologic Setting	Average annual flow at the dam	The approximate average annual flows at the Newton Falls Project based on flow data from 2012 through 2016 at the downstream Browns Falls development is 354 cfs.
	Average monthly flows	The approximate average monthly flows at the Newton Falls Project based on flow data from 2012 through 2016 at the downstream Browns Falls development are as follows: January – 507 cfs February – 370 cfs March – 335 cfs April – 508 cfs May – 405 cfs June – 406 cfs July – 206 cfs August – 171 cfs September – 124 cfs October – 263 cfs November – 473 cfs December – 477 cfs
	Location and name of relevant stream gauging stations above and below the facility	USGS Gage No. 04261000 Oswegatchie River at Cranberry Lake (upstream of Upper Newton Falls Development) USGS Gage No. 04262000 Oswegatchie

		River Near Oswegatchie NY (just downstream of Flat Rock Development)
	Watershed area at the dam	Drainage Area: 168 sq. mi.
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the Upper Newton Falls Development.
	Upstream and downstream locations by river miles	Zone 1: 99.4 to 99.3 Zone 2: 99.6 to 99.4 Zone 3: 104.8 to 99.6
	Type of waterbody (river, impoundment, by-passed reach, etc.)	Zone 1: River Zone 2: Bypassed Reach Zone 3: Impoundment
	Delimiting structures	Zone 1: Upper Newton Falls powerhouse, downstream approximately 0.10 miles. Zone 2: Upper Newton Falls dam, downstream bypassed reach approximately 0.29 miles. Zone 3: From the head of the Upper Newton Falls impoundment, downstream approximately 5.2 miles to the Upper Newton Falls dam.
	Designated uses by state water quality agency	Flows in the Oswegatchie River upstream of the Newton Falls facilities are regulated by the Cranberry Lake Dam. The NYSDEC has identified the river from the Cranberry Lake Dam to the Newton Falls Upper Dam as Class A(t). Downstream of the Newton Falls Dam to the bridge at Fine, NY, the stream is classified as Class C. Class A waters are designated for drinking and culinary purposes, recreation, and suitable for fish propagation and survival. The (t) classification also indicates that a trout population may also be supported. Class C waters are designated for recreation and suitable for fish propagation and survival. Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=docum

		enttoc&transitionType=Default&contextData=(sc.Default)
Additional Contact Information	Names, addresses, phone numbers, and e-mail for local state and federal resource agencies	See Part V of the LIHI certification application for more information.
	Names, addresses, phone numbers, and e-mail for local non-governmental stakeholders	See Part V of the LIHI certification application for more information.
Photographs and Maps	Photographs of key features of the facility and each of the designated zones of effect	See Appendix A.
	Maps, aerial photos, and/or plan view diagrams of facility area and river basin	See Appendix B.

Table I-2. Facility Description Information for the Lower Newton Falls Development of the Newton Falls Project (LIHI #32).

Information Type	***Facility Description***	***Response (and reference to further details)***
Name of the Facility	Facility name (use FERC project name if possible)	Newton Falls Project (FERC No. 7000) *Lower Newton Falls Development*
Location	River name (USGS proper name)	Oswegatchie River
	River basin name	Oswegatchie River Basin
	Nearest town, county, and state	Clifton, St. Lawrence County, New York
	River mile of dam above next major river	River Mile 99.1
	Geographic Latitude	44.2117 N
	Geographic Longitude	-74.9983 W
Facility Owner	Application contact names (IMPORTANT: you must also complete the Facilities Contact Form):	See Part V of the LIHI certification application for more information.
	- Facility owner (individual and company names)	Erie Boulevard Hydropower, L.P.
	- Operating affiliate (if different from owner)	Same as above
	- Representative in LIHI certification	Daniel J. Maguire, P.E., Compliance Specialist
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates	FERC Project Number 7000 The Newton Falls Settlement Agreement dated, July 15, 2002 was filed with FERC on July 16, 2002. New license issued on August 13, 2003. License expires on January 31, 2044.
	FERC license type or special classification (e.g., "qualified conduit")	License for major project (<5MW)
	Water Quality Certificate identifier and issuance date, plus source agency name	The Section 401 Water Quality Certificate (WQC) was issued by the New York State Department of Environmental Conservation (NYSDEC) on December 20, 2002 and adopted into Article 401 of the FERC License.

	Hyperlinks to key electronic records on FERC e-library website (e.g., most recent Commission Orders, WQC, ESA documents, etc.)	July 16, 2002 Settlement Agreement: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=1047240 December 20, 2002 401 WQC: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341 May 27, 2003 Environmental Assessment: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10450341 August 13, 2003 License Order: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=9786914 November 21, 2011 FERC Environmental Inspection Report: https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12801878
Power Plant Character-istics	Date of initial operation (past or future for operational applications)	The Newton Falls Project began operation in 1927.
	Total name-plate capacity (MW)	Newton Falls Project: *Upper Newton Falls Development:* 1.54 MW *Lower Newton Falls Development:* 680kW **Total installed capacity: 2.22 MW**
	Average annual generation (MWh)	The average annual generation is estimated at 9,500 MWh in the 2003 license. Actual annual generation is filed with the FERC each year. The average generation from 2011 to 2016 is 8,982 MWh.
	Number, type, and size of turbines, including maximum and minimum hydraulic capacity of each unit	Generating Units: 1 Type: James Leffel & Company vertical Francis turbine Description of Turbine: Design capacity of 900 HP at a design head of 22 feet and a speed of 144 rpm Maximum Capacity: 486 cfs

		Minimum Capacity: 146 cfs
	Modes of operation (run-of-river, peaking, pulsing, seasonal storage, etc.)	Run-of-river
	Dates and types of major equipment upgrades	There have been no major equipment upgrades at the Project.
	Dates, purpose, and type of any recent operational changes	There have been no recent operational changes at the Project.
	Plans, authorization, and regulatory activities for any facility upgrades	There are no plans for any facility upgrades at the Project.
Character-istics of Dam, Diversion, or Conduit	Date of construction	The Lower Newton Falls Development was constructed in 1927.
	Dam height	24 feet
	Spillway elevation and hydraulic capacity	Spillway Elevation: 1372.5 ft msl Flashboards: 1.5 feet high Hydraulic Capacity: 4200 cfs, without flashboards, at elevation 1376.5 ft msl (top of intake bulkhead wall)
	Tailwater elevation	1350.5 ft msl (assumed)
	Length and type of all penstocks and water conveyance structures between reservoir and powerhouse	There are no penstocks or flumes at the Lower Newton Falls Development. The powerhouse and intake are integral structures.
	Dates and types of major, generation-related infrastructure improvements	The construction and major events/alterations/repairs to the Project are listed as follows: • Late 1920s - The Newton Falls Project was constructed. Both the upper and lower dams replaced timber crib dams originally constructed around 1895. The only construction related records available are circa 1926-1927 and consist of communications between the design engineer (W.H. Cushman) and the Office of the State Engineer. There are no other construction records available or information regarding rehabilitative work prior to 1985, although field inspections indicate that both dams had received shotcrete surface coatings. • 1996 – Rehabilitated the left embankment, spillway and forebay wall. This work included concrete

		resurfacing of the spillway and forebay wall. • 1997 – A toe drain and filter blanket were installed at the left embankment toe to mitigate seepage. • 2006 – The powerhouse substructure sidewalls/foundation and buttresses were rehabilitated. This rehabilitation included a concrete overlay.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	The purpose of the Lower Newton Falls Development is for power production.
	Water source	Oswegatchie River
	Water discharge location or facility	Oswegatchie River
Characte-ristics of Reservoir and Watershed	Gross volume and surface area at full pool	Volume: 115.0 acre-feet Surface Area: 9 acres
	Maximum water surface elevation (ft. MSL)	Maximum full reservoir elevation with 1.5 foot flashboards: 1374.0 ft msl
	Maximum and minimum volume and water surface elevations for designated power pool, if available	Not applicable.
	Upstream dam(s) by name, ownership, FERC number (if applicable), and river mile	Cranberry Lake Hydroelectric Project, Algonquin Power, FERC No. 9685, RM 108.8 Upper Newton Falls Development, Erie Boulevard Hydropower, L.P., FERC No. 7000, RM 99.6
	Downstream dam(s) by name, ownership, FERC number (if applicable), and river mile	Browns Falls Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 96.9 Flat Rock Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 95.5 South Edwards Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 87.1 Oswegatchie Development, Erie Boulevard Hydropower, L. P., FERC No. 2713, RM 86.6

	Operating agreements with upstream or downstream reservoirs that affect water availability, if any, and facility operation	The Cranberry Lake Dam is located approximately 12 miles upstream of the Upper Newton Falls development and is the principal storage facility in the Oswegatchie River Basin. The Cranberry Lake Operators notify Erie Travelling Operators directly when any flow changes are made. Downstream of the Upper Newton Falls development are the Lower Newton Falls, Browns Falls and Flat Rock developments, which are all owned and operated by Erie. Erie's hydroelectric facilities are operated based on the outflow from the Cranberry Lake Dam and in coordination with Erie's other hydroelectric facilities on the Oswegatchie River.
	Area inside FERC project boundary, where appropriate	The 9-acre reservoir is located entirely within the FERC Project boundary. Project lands within the Project boundary are less than one acre.
Hydrologic Setting	Average annual flow at the dam	The approximate average annual flows at the Newton Falls Project based on flow data from 2012 through 2016 at the downstream Browns Falls development is 354 cfs.
	Average monthly flows	The approximate average monthly flows at the Newton Falls Project based on flow data from 2012 through 2016 at the downstream Browns Falls development are as follows: January – 507 cfs February – 370 cfs March – 335 cfs April – 508 cfs May – 405 cfs June – 406 cfs July – 206 cfs August – 171 cfs September – 124 cfs

		October – 263 cfs November – 473 cfs December – 477 cfs
	Location and name of relevant stream gauging stations above and below the facility	USGS Gage No. 04261000 Oswegatchie River at Cranberry Lake (upstream of Upper Newton Falls Development) USGS Gage No. 04262000 Oswegatchie River Near Oswegatchie NY (just downstream of Flat Rock Development)
	Watershed area at the dam	Drainage Area: 172 sq. mi.
Designated Zones of Effect	Number of zones of effect	There are three zones of effect at the Lower Newton Falls Development.
	Upstream and downstream locations by river miles	Zone 1: 99.1 to 99.0 Zone 2: 99.1 to 89.9 Zone 3: 99.4 to 99.1
	Type of waterbody (river, impoundment, by-passed reach, etc.)	Zone 1: River Zone 2: Bypassed Reach Zone 3: Impoundment
	Delimiting structures	Zone 1: Lower Newton Falls powerhouse, downstream approximately 0.08 miles. Zone 2: Lower Newton Falls dam, downstream approximately 0.22 miles. Zone 3: From the head of the Lower Newton Falls impoundment, downstream approximately 0.26 miles to the Lower Newton Falls dam.
	Designated uses by state water quality agency	Flows in the Oswegatchie River upstream of the Newton Falls facilities are regulated by the Cranberry Lake Dam. The NYSDEC has identified the river from the Cranberry Lake Dam to the Newton Falls Upper Dam as Class A(t). Downstream of the Newton Falls Dam to the bridge at Fine, NY, the stream is classified as Class C. Class A waters are designated for drinking and culinary purposes, recreation, and suitable for fish propagation and survival. The (t) classification also indicates that a trout population may also be supported. Class C waters are designated for recreation and suitable for fish

		propagation and survival. Link to NYSDEC Classification Codes: https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I06849fe0b5a111dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)
Additional Contact Information	Names, addresses, phone numbers, and e-mail for local state and federal resource agencies	See Part V of the LIHI certification application for more information.
	Names, addresses, phone numbers, and e-mail for local non-governmental stakeholders	See Part V of the LIHI certification application for more information.
Photographs and Maps	Photographs of key features of the facility and each of the designated zones of effect	See Appendix A.
	Maps, aerial photos, and/or plan view diagrams of facility area and river basin	See Appendix B.

PART II. STANDARD MATRICES

The Newton Falls Hydroelectric Project has six zones of effect for this application. The Upper Newton Falls development has three zones of effect and the Lower Newton Falls development has three zones of effect. The three zones for the Upper Newton Falls development are defined as: (1) Zone one, which extends from the Upper Newton Falls powerhouse, downstream approximately 0.10 miles, (2) Zone two, which extends from the Upper Newton Falls dam, downstream approximately 0.29 miles to an area approximately 0.04 miles downstream of the Upper Newton Falls powerhouse, and (3) Zone three, which extends from the head of the Upper Newton Falls impoundment, downstream approximately 5.2 miles to the Upper Newton Falls dam. Zones 1 and Zone 2 discharge directly into the impoundment of the Lower Newton development (Zone 3) The three zones of effect for the Lower Newton Falls development are defined as: (1) Zone one, which extends from the Lower Newton Falls powerhouse, downstream approximately 0.08 miles, (2) Zone two, which extends from the Lower Newton Falls dam, downstream approximately 0.22 miles, and (3) Zone three, which extends from the head of the Lower Newton Falls impoundment, downstream approximately 0.26 miles to the Lower Newton Falls dam. Zone 2 discharge directly into the most upstream impoundment of the Oswegatchie River Hydroelectric Project, Browns Falls impoundment. The standards selected to satisfy the LIHI certification criteria in each of these zones are identified in the following tables.

Upper Newton Zones of Effect


Zone 2


Zone 3
Newton Falls

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

		Alternative Standards				
	Criterion	***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 Upper Newton Falls Development

		Alternative Standards				
	Criterion	***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 Upper Newton Falls Development

		Alternative Standards				
	Criterion	***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			

Lower Newton Zones of Effect


Zone 2


Zone 3
60

Table II-5. LIHI Standards Selected for Zone of Effect No. 1 for the Lower Newton Falls Development

		Alternative Standards				
	Criterion	***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. 2 for the Lower Newton Falls Development

		Alternative Standards				
	Criterion	***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. 3 for the Lower Newton Falls Development

		Alternative Standards				
	Criterion	***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			

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).

UPPER NEWTON FALLS DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.1 Ecological Flows: Upper Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
A	1	Not Applicable / De Minimis Effect: • Confirm the location of the powerhouse relative to other dam/diversion structures to establish that there are no bypassed reaches at the facility. • If Run-of-River operation, provide details on how flows, water levels, and operation are monitored to ensure such an operational mode is maintained. • In a conduit project, identify the water source and discharge points for the conduit system within which the hydropower plant is located. • For impoundment zones only, explain 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 Upper Newton Falls development includes the area downstream of the powerhouse, therefore there is no bypassed reach within this zone. The Upper Newton Falls development operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards).

Remote gaging equipment is in place to sample and record headpond elevations every minute. Measurements are recorded to the nearest 0.1 foot and are stored at Erie's North America System Control Center (NASCC) in Marlborough, MA. The monitoring system includes measures that alert the NASCC whether pond levels are decreasing or increasing, allowing Erie to make adjustments to pond levels by changing discharge or, if necessary, dispatch a traveling operator to the site.

The minimum hydraulic capacity of the Upper Newton powerhouse is 80 cfs. In the event powerhouse goes offline, the tailrace will remain backwatered by the Lower Newton impoundment.

III.A.2 Ecological Flows: Upper Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
A	2	Agency Recommendation (see Appendix A for definitions): • 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 stringent). • 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 2 of the Upper Newton Falls development includes the bypassed reach extending from the dam to the confluence with the tailrace.

The Newton Falls Project is in compliance with resource agency recommendations regarding flow conditions. The Settlement Agreement/License Order includes requirements for flow releases recommended by the New York State Department of Environmental Conservation (NYSDEC) and the U. S. Fish and Wildlife Service (USFWS).

A Demonstration Flow Study was performed in 2001 to assess the appropriate flows for the bypassed reach. The initial phase of the study consisted of mapping the habitat of the upper bypassed reach and updating the lower bypassed reach habitat map. The second phase entailed evaluating the bypassed reaches under a range of flows, from leakage up to 50 cfs. Limited habitat for smallmouth bass spawning or fallfish was available at any flow. The primary use of this bypassed reach is to provide forage. Fish movement was limited at leakage, but maximized at flows of 20 cfs and higher. The USFWS' engineering guidelines for downstream fish movement require a minimum flow of 20 cfs. This flow was determined to provide adequate habitat to meet the management objectives of the bypassed reach.

Article 402 of the license requires a Stream Flow and Water Level Monitoring Plan (SFWLMP) to be developed to ensure compliance with impoundment fluctuations, and fish movement/bypass flows. The final SFWLMP was filed with FERC on January 27, 2006. On May 2, 2006 FERC issued an order Modifying and Approving SFWLMP pursuant to Article 402 of the FERC license.

Minimum flows in the Upper Newton Falls bypassed reach are 20 cfs year-round. The minimum flows at Upper Newton Falls were implemented in 2006. The Upper Newton Falls development

operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards).

A copy of the SFWLMP can be viewed at:
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11017322

The NYSDEC and USFWS have not identified any specific measures for evaluating and managing fish and wildlife habitat in this zone.

III.A.3 Ecological Flows: Upper Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
A	1	Not Applicable / De Minimis Effect: • Confirm the location of the powerhouse relative to other dam/diversion structures to establish that there are no bypassed reaches at the facility. • If Run-of-River operation, provide details on how flows, water levels, and operation are monitored to ensure such an operational mode is maintained. • In a conduit project, identify the water source and discharge points for the conduit system within which the hydropower plant is located. • For impoundment zones only, explain 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 Upper Newton Falls development includes the impoundment, which is located upstream of the dam, therefore there is no bypassed reach within this zone. The Upper Newton Falls development operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards). Flashboards are in-place year round. The flashboard system is designed to fail with about 1 to 2 feet of overtopping. Failed flashboards are replaced in the spring as river conditions allow. Minimum flow to the bypassed reach is provided via the fish passage outlet during flashboard replacement.

Cranberry Lake controls 140 square miles of the drainage that contributes to Upper Newton Falls. Erie has no control over inflows into the Upper Newton development. Cranberry Lake is operated to try to maintain elevation 1,602 feet during the summer and operators provides communication to Erie Water Resource Managers. There is about a 14 hour lag time for arrival of releases from Cranberry Lake.

Remote gaging equipment is in place to sample and record headpond elevations every minute. Measurements are recorded to the nearest 0.1 foot and are stored at Erie's North America System

Control Center (NASCC) in Marlborough, MA. The monitoring system includes measures that alert the NASCC whether pond levels are decreasing or increasing, allowing Erie to make adjustments to pond levels by changing discharge or, if necessary, dispatch a traveling operator to the site.

Article 402 of the license requires a Stream Flow and Water Level Monitoring Plan (SFWLMP) to be developed to ensure compliance with impoundment fluctuations, and fish movement/bypass flows. The final SFWLMP was filed with FERC on January 27, 2006. On May 2, 2006 FERC issued an order Modifying and Approving SFWLMP pursuant to Article 402 of the FERC license.

Minimum flows in the Upper Newton Falls bypassed reach are 20 cfs year-round. The minimum flows at Upper Newton Falls were implemented in 2006. The Upper Newton Falls development operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards).

A copy of the SFWLMP can be viewed at:
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11017322

The NYSDEC and USFWS have not identified any specific measures for evaluating and managing fish and wildlife habitat in this zone.

Information Required to Support Water Quality Standards.

III.B.1 Water Quality: Upper Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Newton Falls Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 Water Quality Certificate (WQC). The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued December 20, 2002 (https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341).

On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

Per review of the September 2014 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the September 2014 Section 303(d) list for New York State can be viewed at https://www.epa.gov/sites/production/files/2015-10/documents/ny_303dlist_final_2014_2014-11-3.pdf.

III.B.2 Water Quality: Upper Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

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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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

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III.B.3 Water Quality: Upper Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Newton Falls Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 Water Quality Certificate (WQC). The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued December 20, 2002 (https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341). On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the

current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

Per review of the September 2014 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the September 2014 Section 303(d) list for New York State can be viewed at https://www.epa.gov/sites/production/files/2015-10/documents/ny_303dlist_final_2014_2014-11-3.pdf.

Information Required to Support Upstream Fish Passage Standards.

III.C.1 Upstream Fish Passage: Upper Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. • 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.

Zone one of this Project is the area downstream of the powerhouse and upstream fish passage is not applicable because there is no barrier to fish.

III.C.2 Upstream Fish Passage: Upper Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. • 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 mandatory prescriptions (section 18 or similar) for the passage of riverine fish at the Project. Several natural water falls in the Project area have created barriers for upward migration of fish species. Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout. No requirements for upstream fish passage have been required by Resource Agencies for the Newton Falls Project.

Dating back to 1931 and encompassing four different fisheries surveys, no records exist of any anadromous or catadromous fish species inhabiting the Oswegatchie River between Gouverneur and Cranberry Lake (Carlson, 1992)[2]. The 2003 FERC Environmental Assessment (EA) stated that given the existing resident fish community within the Project area and the human-made and natural barriers to upstream fish passage downstream of the project, upstream fish passage would not be necessary at the Newton Falls Project.

III.C.3 Upstream Fish Passage: Upper Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. • 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.

Zone three of this Project is an impoundment and upstream fish passage is not applicable because there is no barrier to fish.

Information Required to Support Downstream Fish Passage Standards.

III.D.1 Downstream Fish Passage: Upper Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
D	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to downstream fish passage in the designated zone, considering both physical obstruction and increased mortality relative to natural downstream movement (e.g., entrainment into hydropower turbines). • 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.

[2] Carlson, D. M. 1992. A fisheries management survey of the middle Oswegatchie River (Gouverneur to Cranberry Lake). New York State Department of Environmental Conservation, Albany, NY. September 25, 1992.

There are no downstream fish passage barriers or migratory fish management issues in Zone 1. There are no mandatory prescriptions (section 18 or similar) for the passage of riverine fish at the Project. Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. Downstream fish passage was implemented at the Upper Newton Falls dam in 2006.

III.D.2 Downstream Fish Passage: Upper Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
D	2	Agency Recommendation: • 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 stringent). • 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.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. A Demonstration Flow Study was performed to assess the appropriate flows for the bypassed reach. Limited habitat for smallmouth bass spawning or fallfish was available at any flow. All other target organisms exhibited increased habitat with increasing flows up to 30 cfs. Smallmouth bass adult and juvenile habitat demonstrated moderate increases when flows were increased from 20 cfs to 30 cfs. In addition to the minimum 20 cfs flows in the bypassed reach, 1-inch trashracks were installed at the Project's intake area for downstream fish protection to minimize fish entrainment through the powerhouse. The estimated maximum water velocity at the trashracks is 1.8 feet per second (fps). With this velocity, most fish should have sufficient burst speed to swim upstream against the prevailing flow and should be able to avoid entrainment (actual burst speeds of individual fish depend upon the species and the size of the fish).

The primary use of this bypassed reach is to provide forage. Both macroinvertebrate habitat and habitat for riffle-dwelling species (represented by longnose dace) showed significant increases with increasing flow from leakage to 30 cfs. Fish movement was limited at leakage, but maximized at flows of 20 cfs and higher.

The USFWS' engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. It was determined by the settlement parties that this flow will provide

adequate habitat to meet the management objectives of the bypassed reach. Since the flow through the fish movement structure is discharged to the bypassed reach, the bypassed reach will always receive at least 20 cfs plus leakage.

Pursuant to Article 404, the licensee implemented downstream fish movement facilities at the Upper Newton Falls development in 2006. The downstream movement facilities consist of plunge pools, smooth transitions, channel modifications, etc. and the routes consist of the spillway, sluiceway and gates. The article requires that a minimum flow of 20 cfs or inflow, whichever is less, be provided to the bypassed reach for downstream fish passage. Per the Settlement Agreement, Erie is not required to test the effectiveness of any, or all, components of existing and future protection or fish movement measures and/or structures.

Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

February 8, 2006 FERC Order Approving Plans and Drawings for Downstream Fish Movement Facilities https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10946610

February 20, 2008 Fish Movement Facilities Design Drawings
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11595117

III.D.3 Downstream Fish Passage: Upper Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
D	2	Agency Recommendation: • 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 stringent). • 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.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. The article requires that a minimum flow of 20 cfs or inflow, whichever is less, be provided to the bypassed reach for downstream fish passage. Additionally, as required in the Settlement Agreement, the installation of 1-inch trash racks occurred at the development prior to January 31, 2008. Per the Settlement Agreement, Erie is not required to make qualitative or quantitative determinations of fish entrainment and/or mortality or provide compensation for any fish entrainment and/or mortality.

Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

Information Required to Support Shoreline and Watershed Protection Standards.

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

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

A Shoreline Erosion Monitoring Plan (SEMP) was developed in coordination with the State Historic Preservation Office (SHPO) and filed with FERC on January 31, 2005. There have been no indications from any state, federal, or non-governmental organizations of concerns regarding shoreline and watershed protection measures at the Upper Newton Falls development in Zone 1. Erosion monitoring in the SEMP was focused on the impoundment and no monitoring is required in Zone 1 of the facility.

The entire Project lies within the Adirondack State Park boundary, near the village of Newton Falls in St. Lawrence County, New York. Minimal urban development has occurred within the Project vicinity given its location within the Adirondack State Park. Aside from the small community of Newton Falls, land surrounding the Project area is heavily wooded. Strip mines are located to the south of Newton Falls along State Route 60. There is also an industrial area that borders the Oswegatchie River north of the powerhouse and lower reservoir. Logging roads within the Project vicinity provide access for recreational activities.

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

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

A SEMP was developed in coordination with the SHPO and filed with FERC on January 31, 2005. There have been no indications from any state, federal, or non-governmental organizations of concerns regarding shoreline and watershed protection measures at the Upper Newton Falls

development in Zone 2. Erosion monitoring in the SEMP was focused on the impoundment and no monitoring is required in Zone 2 of the facility.

The entire Project lies within the Adirondack State Park boundary, near the village of Newton Falls in St. Lawrence County, New York. Minimal urban development has occurred within the Project vicinity given its location within the Adirondack State Park. Aside from the small community of Newton Falls, land surrounding the Project area is heavily wooded. Strip mines are located to the south of Newton Falls along State Route 60. There is also an industrial area that borders the Oswegatchie River north of the powerhouse and lower reservoir. Logging roads within the Project vicinity provide access for recreational activities.

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

Criterion	*Standard*	*Instructions*
E	2	Agency Recommendation: • Provide copies or links to any agency recommendations or management plans that are in effect related to protection, mitigation, or enhancement of shoreline surrounding the facility (e.g., Shoreline Management Plans). • Provide documentation that indicates the facility is in full compliance with any agency recommendations or management plans that are in effect.

The Upper Newton Falls development operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards). Erie's property ownership of the impoundment is limited to project boundary. The property adjoining the project boundary is privately-owned.

A SEMP was developed in coordination with the SHPO and filed with FERC on January 31, 2005. The SEMP included provisions for (1) initial reconnaissance of portion of the Upper Newton Falls development's reservoir shoreline to establish a baseline to compare future erosion conditions in areas of concern identified by the SHPO, (2) follow-up comparative reconnaissance monitoring of the reservoir shoreline area following the occurrence of an extreme flow event (reservoir elevation exceeds 1,424 feet NGVD), and (3) reconnaissance and monitoring of the area of concern by responsible personnel of the licensee as defined by the SHPO. The Upper Newton exceeded an elevation of 1,424 feet once since implementation of the SEMP. The Upper Newton impoundment reached an elevation of 1,424.1 feet in April 2014. No impacts to the shoreline were observed following the event.

In the event significant signs of erosion are discovered, Erie shall, within 30 days of the discovery, consult further with the SHPO to determine what further actions and/or investigations, if any, are needed, and file the results of this consultation. Erie remains in compliance with the approved SEMP.

January 31, 2005 SEMP
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10410372

May 19, 2005 Order Approving SEMP
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10566025

Information Required to Support Threatened and Endangered Species Standards.

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

Criterion	*Standard*	*Instructions*
F	3	Recovery Planning and Action: • 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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for information on rare, threatened or endangered (RTE) species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat (*Myotis septentrionalis*) may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

The following recovery plan has been adopted by the USFWS for the Indiana bat, which closely resembles the northern long-eared bat that may be present in the vicinity of the Newton Falls Project. U.S. Fish and Wildlife Service. 2007. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Northern long-eared bats often winter in the same hibernaculum with other species of bats and are occasionally observed clustered with or adjacent to other species, including gray bats, Virginia big-eared bats, little brown bats, and Indiana bats.

Recovery actions identified in USFWS's Indiana Bat Draft Recovery Plan include hibernacula-related recovery actions and summer habitat management. No bat hibernacula, which typically include caves and mines, are known to exist in the immediate vicinity of the Newton Falls Project. Transient individuals, presumably in association with summer habitat, may, however

exist in the Project area. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this draft recovery plan.

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 Upper Newton development, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

Erie also contacted the NYSDEC on May 12, 2017, regarding the presence of rare or state-listed animals and plants, significant natural communities, or other significant habitats.

By letter dated June 14, 2017, the NYSDEC indicated that the Bald Eagle (*Haliaeetus leucocephalus*), which is state-listed as threatened, has been documented nesting along the shore of the Oswegatchie River, at the edge of the Project boundary. The Common Loon (*Gavia immer*) is listed as a species of Special Concern on the Oswegatchie River Reservoir. The NYSDEC also indicated that Northern Reedgrass (*Calamagrostis stricta* ssp. *inexpansa*) was listed as threatened among Oswegatchie River Islands. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Northern Reedgrass. In 2016, the NYSDEC developed a Bald Eagle Conservation Plan that describes the historic and current status of the bald eagle in New York State and provides guidelines for future management actions. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this conservation plan.

The record of RTE consultation is included in Appendix D.

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

Criterion	***Standard***	***Instructions***
F	3	Recovery Planning and Action: • 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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for

information on RTE species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

The following recovery plan has been adopted by the USFWS for the Indiana bat, which closely resembles the northern long-eared bat that may be present in the vicinity of the Newton Falls Project. U.S. Fish and Wildlife Service. 2007. Indiana Bat Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Northern long-eared bats often winter in the same hibernaculum with other species of bats and are occasionally observed clustered with or adjacent to other species, including gray bats, Virginia big-eared bats, little brown bats, and Indiana bats.

Recovery actions identified in USFWS's Indiana Bat Draft Recovery Plan include hibernacula-related recovery actions and summer habitat management. No bat hibernacula, which typically include caves and mines, are known to exist in the immediate vicinity of the Newton Falls Project. Transient individuals, presumably in association with summer habitat, may, however exist in the Project area. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this draft recovery plan.

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 Upper Newton development, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

By letter dated June 14, 2017, the NYSDEC indicated that the Bald Eagle, which is state-listed as threatened, has been documented nesting along the shore of the Oswegatchie River, at the edge of the Project boundary. The Common Loon is listed as a species of Special Concern on the Oswegatchie River Reservoir. The NYSDEC also indicated that Northern Reedgrass was listed as threatened among Oswegatchie River Islands. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Northern Reedgrass. In 2016, the NYSDEC developed a Bald Eagle Conservation Plan that describes the historic and current status of the bald eagle in New York State and provides guidelines for future management actions. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this conservation plan.

The record of RTE consultation is included in Appendix D.

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

Criterion	*Standard*	*Instructions*
F	3	Recovery Planning and Action: • If listed species are present, document that the facility is in

Criterion	*Standard*	*Instructions*
		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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for information on RTE species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

The following recovery plan has been adopted by the USFWS for the Indiana bat, which closely resembles the northern long-eared bat that may be present in the vicinity of the Newton Falls Project. U.S. Fish and Wildlife Service. 2007. Indiana Bat Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Northern long-eared bats often winter in the same hibernaculum with other species of bats and are occasionally observed clustered with or adjacent to other species, including gray bats, Virginia big-eared bats, little brown bats, and Indiana bats.

Recovery actions identified in USFWS's Indiana Bat Draft Recovery Plan include hibernacula-related recovery actions and summer habitat management. No bat hibernacula, which typically include caves and mines, are known to exist in the immediate vicinity of the Newton Falls Project. Transient individuals, presumably in association with summer habitat, may, however exist in the Project area. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this draft recovery plan.

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 Upper Newton development, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

By letter dated June 14, 2017, the NYSDEC indicated that the Bald Eagle, which is state-listed as threatened, has been documented nesting along the shore of the Oswegatchie River, at the edge of the Project boundary. The Common Loon is listed as a species of Special Concern on the Oswegatchie River Reservoir. The NYSDEC also indicated that Northern Reedgrass was listed

as threatened among Oswegatchie River Islands. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Northern Reedgrass. In 2016, the NYSDEC developed a Bald Eagle Conservation Plan that describes the historic and current status of the bald eagle in New York State and provides guidelines for future management actions. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this conservation plan.

The record of RTE consultation is included in Appendix D.

Information Required to Support Cultural and Historic Resources Standards.

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

Criterion	*Standard*	*Instructions*
G	1	Not Applicable / De Minimis Effect: • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past adversely affected any cultural or historic resources that are present on facility lands.

No cultural or historic resources have been identified within Zone 1, therefore there are no anticipated impacts to cultural or historic resources There has been no documentation that the facility construction and operation have adversely affected any cultural or historic resources within Zone 1. A SEMP was developed for the Newton Falls Project, however the erosion monitoring focused on the Upper Newton Falls impoundment. No monitoring is required in Zone 1.

As stated in the 2003 FERC EA, the Area of Potential Effect (APE) for Upper Newton Falls is the Project boundary at elevation 1,424 feet NGVD, just above the maximum normal pool elevation (1,423.3 feet NGVD). For Lower Newton Falls, the Project boundary and upper limit of the APE is at elevation 1,375.5 feet NGVD, just above the maximum normal pool elevation (1,372.5 feet NGVD). These delineations enclose the shorelines of both Project reservoirs, areas immediately adjacent to Project facilities, and the easements for the boat access and canoe portage areas. They do not enclose any properties that are currently listed on the National Register of Historic Places (National Register) or known to be eligible for listing. Within the APE, two properties that may be eligible – the Newton Falls Upper Hydroelectric Plant, constructed in 1927, and the Newton Falls Lower Hydroelectric Plant, constructed in 1929 – have been identified, but have not been evaluated for listing on the National Register. By letter dated November 6, 2002, the SHPO stated that it had no concerns regarding the potential effects of the continued operation of the Project on historic structures or buildings within the APE. The SHPO identified no archaeological sites within the Newton Falls Project.

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

Criterion	*Standard*	*Instructions*
G	1	Not Applicable / De Minimis Effect: • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past adversely affected any cultural or historic resources that are present on facility lands.

There are no Project facilities within Zone 2, therefore there are no impacts to cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. Since there are no Project facilities within Zone 2 they have not impacted any cultural or historic resources within this zone of effect in the past.

As stated in the 2003 FERC EA, the Area of Potential Effect (APE) for Upper Newton Falls is the Project boundary at elevation 1,424 feet NGVD, just above the maximum normal pool elevation (1,423.3 feet NGVD). For Lower Newton Falls, the Project boundary and upper limit of the APE is at elevation 1,375.5 feet NGVD, just above the maximum normal pool elevation (1,372.5 feet NGVD). These delineations enclose the shorelines of both Project reservoirs, areas immediately adjacent to Project facilities, and the easements for the boat access and canoe portage areas. They do not enclose any properties that are currently listed on the National Register of Historic Places (National Register) or known to be eligible for listing. Within the APE, two properties that may be eligible – the Newton Falls Upper Hydroelectric Plant, constructed in 1927, and the Newton Falls Lower Hydroelectric Plant, constructed in 1929 – have been identified, but have not been evaluated for listing on the National Register. By letter dated November 6, 2002, the SHPO stated that it had no concerns regarding the potential effects of the continued operation of the Project on historic structures or buildings within the APE. The SHPO identified no archaeological sites within the Newton Falls Project.

Information Required to Support Cultural and Historic Resources Standards.

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

Criterion	*Standard*	*Instructions*
G	2	Approved Plan: • Provide documentation of all approved state, provincial, 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.

The Upper Newton Falls development operates with a maximum 1.0 foot fluctuation from July 16 through April 30 and 0.5 foot from May 1 through July 15 (measured in a downward direction from top of flashboards).

A SEMP was developed in coordination with the SHPO and filed with FERC on January 31, 2005. The SEMP included provisions for (1) initial reconnaissance of portion of the Upper Newton Falls development's reservoir shoreline to establish a baseline to compare future erosion conditions in areas of concern identified by the SHPO, (2) follow-up comparative reconnaissance monitoring of the reservoir shoreline area following the occurrence of an extreme flow event, and (3) reconnaissance and monitoring of the area of concern by responsible personnel of the licensee as defined by the SHPO. The Upper Newton exceeded an elevation of 1,424 feet once since implementation of the SEMP. The Upper Newton impoundment reached an elevation of 1,424.1 feet in April 2014. No impacts to the shoreline were observed following the event.

In the event significant signs of erosion are discovered, Erie shall, within 30 days of the discovery, consult further with the SHPO to determine what further actions and/or investigations, if any, are needed, and file the results of this consultation. Erie remains in compliance with the approved SEMP.

January 31, 2005 SEMP
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10410372

May 19, 2005 Order Approving SEMP
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10566025

Information Required to Support Recreational Resources Standards.

III.H.1 Recreational Resources: Upper Newton Falls Development Zone 1

Criterion	***Standard***	***Instructions***
H	2	Agency Recommendation: • 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 Newton Falls Project is in compliance with recreational access, accommodation, and facilities conditions in the FERC license. Article 406 of the 2003 FERC license requires the licensee to file for FERC approval a recreation plan to construct, operate, and maintain then-proposed recreational facilities at each development. The licensee filed the final recreation plan for the Newton Falls Project on March 7, 2005. An Order Approving the Recreation Plan under Article 406 was issued on February 9, 2006 by FERC.

The enhancements outlined in the plan have all been implemented by the Licensee and are further described in the final recreation plan for the Newton Falls Project that was filed with FERC. As-built drawings of completed recreation facilities were submitted to FERC on July 23, 2007. The licensee continues to maintain these recreation facilities and files FERC Form 80 recreational use data for this development every 5 years as required.

Final Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10478399

Order Approving Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10947857

License Article 406 –As-built Exhibit R Drawings
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408044
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408075
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

III.H.2 Recreational Resources: Upper Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
H	2	Agency Recommendation: • 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 Newton Falls Project is in compliance with recreational access, accommodation, and facilities conditions in the FERC license. Article 406 of the 2003 FERC license requires the licensee to file for FERC approval a recreation plan to construct, operate, and maintain then-proposed recreational facilities at each development. The licensee filed the final recreation plan for the Newton Falls Project on March 7, 2005. An Order Approving the Recreation Plan under Article 406 was issued on February 9, 2006 by FERC.

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https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408075
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

III.H.3 Recreational Resources: Upper Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
H	2	Agency Recommendation: • 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 Newton Falls Project is in compliance with recreational access, accommodation, and facilities conditions in the FERC license. Article 406 of the 2003 FERC license requires the licensee to file for FERC approval a recreation plan to construct, operate, and maintain then-proposed recreational facilities at each development. The licensee filed the final recreation plan for the Newton Falls Project on March 7, 2005. An Order Approving the Recreation Plan under Article 406 was issued on February 9, 2006 by FERC.

The enhancements outlined in the plan have all been implemented by the Licensee and are further described in the final recreation plan for the Newton Falls Project that was filed with FERC. As-built drawings of completed recreation facilities were submitted to FERC on July 23, 2007. The licensee continues to maintain these recreation facilities and files FERC Form 80 recreational use data for this development every 5 years as required.

Final Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10478399

Order Approving Recreation Management Plan
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https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

LOWER NEWTON FALLS DEVELOPMENT

Information Required to Support Ecological Flows Standards.

III.A.1 Ecological Flows: Lower Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
A	2	Agency Recommendation (see Appendix A for definitions): • 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 stringent). • 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 1 of the Lower Newton Falls development extends from the powerhouse downstream approximately 0.10 miles.

The Newton Falls Project is in compliance with resource agency recommendations regarding flow conditions. The Settlement Agreement/License Order includes requirements for flow releases recommended by the NYSDEC and the USFWS.

Article 402 of the license requires a SFWLMP to be developed to ensure compliance with impoundment fluctuations, minimum base flow, and fish movement/bypass flows. The final SFWLMP was filed with FERC on January 27, 2006. On May 2, 2006 FERC issued an order Modifying and Approving SFWLMP pursuant to Article 402 of the FERC license.

Minimum flows in the Lower Newton Falls bypassed reach are 20 cfs year-round and a base flow of 100 cfs, or inflow, whichever is less. The 100 cfs base flow requirement is a continuation of a requirement under the previous FERC license for the Project. The minimum flows at Lower Newton Falls were implemented in 2008. The Lower Newton Falls development is operated as run-of-river with limited fluctuation (0.3 ft below top of flashboards).

The minimum hydraulic capacity of the Upper Newton powerhouse is 146 cfs. In the event powerhouse goes offline, base flow requirements will be restored through the spillway. Operation of the Lower Newton development is determined by releases from the Upper Newton

development and operation at the Lower powerhouse will cease when incoming flows are reduced to 120 cfs and all inflow will be passed over the dam.

A copy of the SFWLMP can be viewed at:
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11017322

III.A.2 Ecological Flows: Lower Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
A	2	Agency Recommendation (see Appendix A for definitions): • 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 stringent). • 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 2 of the Lower Newton Falls development extends from the dam downstream approximately 0.22 miles.

The Newton Falls Project is in compliance with resource agency recommendations regarding flow conditions. The Settlement Agreement/License Order includes requirements for flow releases recommended by the NYSDEC and the USFWS.

The USFWS' engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. The Settlement parties concluded, based in part on videotapes of 20 cfs, that the 20 cfs fish conveyance flow would be adequate for this relatively short bypassed reach.

Article 402 of the license requires a SFWLMP to be developed to ensure compliance with impoundment fluctuations, minimum base flow, and fish movement/bypass flows. The final SFWLMP was filed with FERC on January 27, 2006. On May 2, 2006 FERC issued an Order Modifying and Approving SFWLMP pursuant to Article 402 of the FERC license. In accordance with the Order Modifying and Approving SFWLMP, Erie plans to install minimum flow staff gage/monument in 2018, as river conditions allow, to provide visual verification of minimum flow compliance. Numerous prior attempts to install the minimum flow staff gage in the bypass reach were unsuccessful due to leakage and the inability to adjust the low level gate. The leakage

and gate have now been addressed. The Licensee will identify a secure and visible location to install minimum flow staff gage/monument.

Minimum flows in the Lower Newton Falls bypassed reach are 20 cfs year-round and a base flow of 100 cfs, or inflow, whichever is less. The 100 cfs base flow requirement is a continuation of a requirement under the previous FERC license for the Project. The minimum flows at Lower Newton Falls were implemented in 2008. The Lower Newton Falls development is operated as run-of-river with limited fluctuation (0.3 ft below top of flashboards).

The minimum hydraulic capacity of the Upper Newton powerhouse is 146 cfs. In the event powerhouse goes offline, base flow requirements will be restored through the spillway. Operation of the Lower Newton development is determined by releases from the Upper Newton development and operation at the Lower powerhouse will cease when incoming flows are reduced to 120 cfs and all inflow will be passed over the dam.

A copy of the SFWLMP can be viewed at:
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11017322

III.A.3 Ecological Flows: Lower Newton Falls Development Zone 3

Criterion	***Standard***	***Instructions***
A	1	Not Applicable / De Minimis Effect: • Confirm the location of the powerhouse relative to other dam/diversion structures to establish that there are no bypassed reaches at the facility. • If Run-of-River operation, provide details on how flows, water levels, and operation are monitored to ensure such an operational mode is maintained. • In a conduit project, identify the water source and discharge points for the conduit system within which the hydropower plant is located. • For impoundment zones only, explain 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 Lower Newton Falls development includes the impoundment, which is located upstream of the dam and powerhouse, therefore there is no bypassed reach within this zone. The Lower Newton Falls development is operated as run-of-river with limited fluctuation (0.3 feet below top of flashboards). Flashboards are in-place year round. The flashboard system is designed to fail with about 2 feet of overtopping. Failed flashboards are replaced in the spring as river conditions allow. Minimum flows to the bypassed reach and downstream reach are provided via the powerhouse and the fish passage outlet during flashboard replacement.

Remote gaging equipment is in place to sample and record headpond elevations every minute. Measurements are recorded to the nearest 0.1 foot and are stored at Erie's North America System Control Center (NASCC) in Marlborough, MA. The monitoring system includes measures that alert the NASCC whether pond levels are decreasing or increasing, allowing Erie to make adjustments to pond levels by changing discharge or, if necessary, dispatch a traveling operator to the site.

Information Required to Support Water Quality Standards.

III.B.1 Water Quality: Lower Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Newton Falls Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 Water Quality Certificate (WQC). The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued December 20, 2002 (https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341). On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

Per review of the September 2014 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the September 2014 Section 303(d)

list for New York State can be viewed at https://www.epa.gov/sites/production/files/2015-10/documents/ny_303dlist_final_2014_2014-11-3.pdf.

III.B.2 Water Quality: Lower Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Newton Falls Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 Water Quality Certificate (WQC). The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued December 20, 2002 (https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341). On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

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III.B.3 Water Quality: Lower Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
B	2	Agency Recommendation: • If facility is located on a Water Quality Limited river reach, 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, including the date of issuance. • Identify any other agency recommendations related to water quality and explain their scientific or technical basis. • Describe all compliance activities related to the water quality related agency recommendations for the facility, including on-going monitoring, and how those are integrated into facility operations.

The Newton Falls Project is in compliance with all conditions issued pursuant to a Clean Water Act – Section 401 Water Quality Certificate (WQC). The Section 401 WQC is conditioned on compliance with the terms of the Settlement Agreement. The WQC for the Project was issued December 20, 2002 (https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10605341). On-going water quality monitoring at the Project is not required as part of the WQC or FERC license.

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 Newton Falls Project WQC, and the original WQC, issued on December 20, 2002, is still in effect.

Additionally, the Applicant contacted the NYSDEC on May 12, 2017, regarding the current WQC status for the Project. By letter dated March 5, 2018, the NYSDEC indicated that the current 401 WQC is still valid for the Newton Falls Project. The consultation documentation regarding the 401 WQC is included in Appendix C.

Per review of the September 2014 Section 303(d) list for New York State, no impaired waters in the Project area or downstream reach are listed. A copy of the September 2014 Section 303(d) list for New York State can be viewed at https://www.epa.gov/sites/production/files/2015-10/documents/ny_303dlist_final_2014_2014-11-3.pdf.

Information Required to Support Upstream Fish Passage Standards.

III.C.1 Upstream Fish Passage: Lower Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish

Criterion	*Standard*	*Instructions*
		passage in the designated zone. • 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.

Zone one of this Project is the area downstream of the powerhouse and upstream fish passage is not applicable because there is no barrier to fish.

III.C.2 Upstream Fish Passage: Lower Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. • 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 fish passage barriers or migratory fish management issues in Zone 2. There are no mandatory prescriptions (section 18 or similar) for the passage of riverine fish at the Project. Several natural water falls in the Project area have created barriers for upward migration of fish species. Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout. No requirements for upstream fish passage have been required by Resource Agencies for the Newton Falls Project.

Dating back to 1931 and encompassing four different fisheries surveys, no records exist of any anadromous or catadromous fish species inhabiting the Oswegatchie River between Gouverneur and Cranberry Lake (Carlson, 1992). The 2003 FERC EA stated that given the existing resident fish community within the Project area and the human-made and natural barriers to upstream fish passage downstream of the project, upstream fish passage would not be necessary at the Newton Falls Project.

III.C.3 Upstream Fish Passage: Lower Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
C	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to upstream fish passage in the designated zone. • Document available fish distribution data and the lack of migratory fish species in the vicinity.

Criterion	*Standard*	*Instructions*
		• If migratory fish species have been extirpated from the area, explain why the facility is or was not the cause of this.

Zone three of this Project is an impoundment and upstream fish passage is not applicable because there is no barrier to fish.

Information Required to Support Downstream Fish Passage Standards.

III.D.1 Downstream Fish Passage: Lower Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
D	1	Not Applicable / De Minimis Effect: • Explain why the facility does not impose a barrier to downstream fish passage in the designated zone, considering both physical obstruction and increased mortality relative to natural downstream movement (e.g., entrainment into hydropower turbines). • 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 1. There are no mandatory prescriptions (section 18 or similar) for the passage of riverine fish at the Project. Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. Downstream fish passage was implemented at the Lower Newton Falls dam in 2009.

III.D.2 Downstream Fish Passage: Lower Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
D	2	Agency Recommendation: • 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 stringent). • 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

Criterion	*Standard*	*Instructions*
		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.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. The USFWS' engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. Based on observations of 20 cfs flows, settlement parties determined that the 20 cfs fish conveyance flow would be adequate for this relatively short bypassed reach. In addition to the minimum 20 cfs flows in the bypassed reach, 1-inch trashracks were installed at the Project's intake area for downstream fish protection to minimize fish entrainment through the powerhouse. The estimated maximum water velocity at the trashracks is 2.0 fps. With this velocity, most fish should have sufficient burst speed to swim upstream against the prevailing flow and should be able to avoid entrainment (actual burst speeds of individual fish depend upon the species and the size of the fish).

Pursuant to Article 404, the licensee implemented downstream fish movement facilities at the Lower Newton Falls development in 2009. The downstream movement facilities consist of plunge pools, smooth transitions, channel modifications, etc. and the routes consist of the spillway and gates. The article requires that a minimum flow of 20 cfs or inflow, whichever is less, be provided to the bypassed reach for downstream fish passage. Additionally, as required in the Settlement Agreement, the installation of 1-inch trash racks occurred at the development prior to January 31, 2008.

Per the Settlement Agreement, Erie is not required to (1) test the effectiveness of any, or all, components of existing and future protection or fish movement measures and/or structures, (2) make qualitative or quantitative determinations of fish entrainment and/or mortality and (3) provide compensation for any fish entrainment and/or mortality.

Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

February 8, 2006 FERC Order Approving Plans and Drawings for Downstream Fish Movement Facilities https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10946610

February 20, 2008 Fish Movement Facilities Design Drawings
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11595117

III.D.3 Downstream Fish Passage: Lower Newton Falls Development Zone 3

Criterion	*Standard*	*Instructions*
D	2	Agency Recommendation: • 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 stringent). • 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.

Article 404 of the 2003 FERC License incorporates the requirements of the 2002 Settlement Agreement for downstream fish passage at the Newton Falls Project. The USFWS' engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. Based on observations of 20 cfs flows, settlement parties determined that the 20 cfs fish conveyance flow would be adequate for this relatively short bypassed reach. In addition to the minimum 20 cfs flows in the bypassed reach, 1-inch trashracks were installed at the Project's intake area for downstream fish protection to minimize fish entrainment through the powerhouse. The estimated maximum water velocity at the trashracks is 2.0 fps. With this velocity, most fish should have sufficient burst speed to swim upstream against the prevailing flow and should be able to avoid entrainment (actual burst speeds of individual fish depend upon the species and the size of the fish).

Pursuant to Article 404, the licensee implemented downstream fish movement facilities at the Lower Newton Falls development in 2009. The downstream movement facilities consist of plunge pools, smooth transitions, channel modifications, etc. and the routes consist of the spillway and gates. The article requires that a minimum flow of 20 cfs or inflow, whichever is less, be provided to the bypassed reach for downstream fish passage. Additionally, as required in the Settlement Agreement, the installation of 1-inch trash racks occurred at the development prior to January 31, 2008.

Per the Settlement Agreement, Erie is not required to (1) test the effectiveness of any, or all, components of existing and future protection or fish movement measures and/or structures, (2) make qualitative or quantitative determinations of fish entrainment and/or mortality and (3) provide compensation for any fish entrainment and/or mortality.

Fish known to occur in the Project vicinity include largemouth and smallmouth bass, pike, sucker, several species of minnows, and brook, brown, and rainbow trout.

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February 20, 2008 Fish Movement Facilities Design Drawings
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11595117

Information Required to Support Shoreline and Watershed Protection Standards.

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

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

The Lower Newton Falls development operates in a run-of-river mode with limited fluctuation (0.3 feet below top of flashboards). Each year Erie files documentation with FERC confirming compliance with flow and impoundment level conditions. There have been no indications from any state, federal, or non-governmental organizations of concerns regarding shoreline and watershed protection measures at the Lower Newton Falls development. A SEMP was developed for the Newton Falls Project however, it is specific to shoreline erosion monitoring for the Upper Newton Falls impoundment and does not require any monitoring for the Lower Newton Falls development.

The entire Project lies within the Adirondack State Park boundary, near the village of Newton Falls in St. Lawrence County, New York. Minimal urban development has occurred within the Project vicinity given its location within the Adirondack State Park. Aside from the small community of Newton Falls, land surrounding the Project area is heavily wooded. Strip mines are located to the south of Newton Falls along State Route 60. There is also an industrial area that borders the Oswegatchie River north of the powerhouse and lower reservoir. Logging roads within the Project vicinity provide access for recreational activities.

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

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

The Lower Newton Falls development operates in a run-of-river mode with limited fluctuation (0.3 feet below top of flashboards). Each year Erie files documentation with FERC confirming compliance with flow and impoundment level conditions. There have been no indications from any state, federal, or non-governmental organizations of concerns regarding shoreline and watershed protection measures at the Lower Newton Falls development. A SEMP was developed for the Newton Falls Project however, it is specific to shoreline erosion monitoring for the Upper Newton Falls impoundment and does not require any monitoring for the Lower Newton Falls development.

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

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

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Information Required to Support Threatened and Endangered Species Standards.

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

Criterion	*Standard*	*Instructions*
F	3	Recovery Planning and Action: • 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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for information on RTE species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

The following recovery plan has been adopted by the USFWS for the Indiana bat, which closely resembles the northern long-eared bat that may be present in the vicinity of the Newton Falls Project. U.S. Fish and Wildlife Service. 2007. Indiana Bat Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Northern long-eared bats often winter in the same hibernaculum with other species of bats and are occasionally observed clustered with or adjacent to other species, including gray bats, Virginia big-eared bats, little brown bats, and Indiana bats.

Recovery actions identified in USFWS's Indiana Bat Draft Recovery Plan include hibernacula-related recovery actions and summer habitat management. No bat hibernacula, which typically include caves and mines, are known to exist in the immediate vicinity of the Newton Falls Project. Transient individuals, presumably in association with summer habitat, may, however exist in the Project area. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this draft recovery plan.

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 Lower Newton development, especially with regard to tree clearing from June 1 through July 31, adhere to the prohibitions outlined in the final 4(d) rule.

By letter dated June 14, 2017, the NYSDEC indicated that the Bald Eagle, which is state-listed as threatened, has been documented nesting along the shore of the Oswegatchie River, at the edge of the Project boundary. The Common Loon is listed as a species of Special Concern on the Oswegatchie River Reservoir. The NYSDEC also indicated that Northern Reedgrass was listed as threatened among Oswegatchie River Islands. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Northern Reedgrass. In 2016, the NYSDEC developed a Bald Eagle Conservation Plan that describes the historic and current status of the bald eagle in New York State and provides guidelines for future management actions. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this conservation plan.

The record of RTE consultation is included in Appendix D.

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

Criterion	*Standard*	*Instructions*
F	3	Recovery Planning and Action: • 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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for information on RTE species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

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The record of RTE consultation is included in Appendix D.

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

Criterion	*Standard*	*Instructions*
F	3	Recovery Planning and Action: • 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.

The 2003 EA prepared by FERC for the Newton Falls Project, states that no federally listed endangered or threatened species are known to exist in the vicinity of the Newton Falls developments, except for transient individual bald eagles. The USFWS concluded that the continued Project operation would have no effect on the bald eagle or its habitat. Based on information received from the USFWS's New York Field Office regarding a recent request for

information on RTE species it appears that bald eagle (now delisted, but protected under the Bald and Golden Eagle Protection Act) and northern long-eared bat may potentially occur within the Project area. There are no critical habitats located within the Newton Falls Project area.

The following recovery plan has been adopted by the USFWS for the Indiana bat, which closely resembles the northern long-eared bat that may be present in the vicinity of the Newton Falls Project. U.S. Fish and Wildlife Service. 2007. Indiana Bat Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Northern long-eared bats often winter in the same hibernaculum with other species of bats and are occasionally observed clustered with or adjacent to other species, including gray bats, Virginia big-eared bats, little brown bats, and Indiana bats.

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By letter dated June 14, 2017, the NYSDEC indicated that the Bald Eagle, which is state-listed as threatened, has been documented nesting along the shore of the Oswegatchie River, at the edge of the Project boundary. The Common Loon is listed as a species of Special Concern on the Oswegatchie River Reservoir. The NYSDEC also indicated that Northern Reedgrass was listed as threatened among Oswegatchie River Islands. The NYSDEC has not adopted a formal recovery plan for the Common Loon or Northern Reedgrass. In 2016, the NYSDEC developed a Bald Eagle Conservation Plan that describes the historic and current status of the bald eagle in New York State and provides guidelines for future management actions. Operations of the Newton Falls Project, especially with regard to preservation of woodland buffer areas, are consistent with this conservation plan.

The record of RTE consultation is included in Appendix D.

Information Required to Support Cultural and Historic Resources Standards.

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

Criterion	*Standard*	*Instructions*
G	1	Not Applicable / De Minimis Effect: • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past adversely affected any cultural or historic resources that are present on facility lands.

There are no Project facilities within Zone 1, therefore there are no impacts to cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. Since there are no Project facilities within Zone 1 they have not impacted any cultural or historic resources within this zone of effect in the past.

As stated in the 2003 FERC EA, the Area of Potential Effect (APE) for Upper Newton Falls is the Project boundary at elevation 1,424 feet NGVD, just above the maximum normal pool elevation (1,423.3 feet NGVD). For Lower Newton Falls, the Project boundary and upper limit of the APE is at elevation 1,375.5 feet NGVD, just above the maximum normal pool elevation (1,372.5 feet NGVD). These delineations enclose the shorelines of both Project reservoirs, areas immediately adjacent to Project facilities, and the easements for the boat access and canoe portage areas. They do not enclose any properties that are currently listed on the National Register of Historic Places (National Register) or known to be eligible for listing. Within the APE, two properties that may be eligible – the Newton Falls Upper Hydroelectric Plant, constructed in 1927, and the Newton Falls Lower Hydroelectric Plant, constructed in 1929 – have been identified, but have not been evaluated for listing on the National Register. By letter dated November 6, 2002, the SHPO stated that it had no concerns regarding the potential effects of the continued operation of the Project on historic structures or buildings within the APE. The SHPO identified no archaeological sites within the Newton Falls Project.

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

Criterion	*Standard*	*Instructions*
G	1	Not Applicable / De Minimis Effect: • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past adversely affected any cultural or historic resources that are present on facility lands.

There are no Project facilities within Zone 2, therefore there are no impacts to cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. Since there are no Project facilities within Zone 2 they have not impacted any cultural or historic resources within this zone of effect in the past.

As stated in the 2003 FERC EA, the Area of Potential Effect (APE) for Upper Newton Falls is the Project boundary at elevation 1,424 feet NGVD, just above the maximum normal pool elevation (1,423.3 feet NGVD). For Lower Newton Falls, the Project boundary and upper limit of the APE is at elevation 1,375.5 feet NGVD, just above the maximum normal pool elevation (1,372.5 feet NGVD). These delineations enclose the shorelines of both Project reservoirs, areas immediately adjacent to Project facilities, and the easements for the boat access and canoe portage areas. They do not enclose any properties that are currently listed on the National Register of Historic Places (National Register) or known to be eligible for listing. Within the APE, two properties that may be eligible – the Newton Falls Upper Hydroelectric Plant, constructed in 1927, and the Newton Falls Lower Hydroelectric Plant, constructed in 1929 – have been identified, but have not been evaluated for listing on the National Register. By letter dated November 6, 2002, the SHPO stated that it had no concerns regarding the potential effects of the continued operation of the Project on historic structures or buildings within the APE. The SHPO identified no archaeological sites within the Newton Falls Project.

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

Criterion	***Standard***	***Instructions***
G	1	Not Applicable / De Minimis Effect: • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past adversely affected any cultural or historic resources that are present on facility lands.

The Lower Newton Falls development operates in a run-of-river mode with limited fluctuation (0.3 feet below top of flashboards). There have been no indications from any state, federal, or non-governmental organizations of concerns regarding cultural or historic resources located on facility lands that may have the potential to be affected by the Lower Newton Falls development. A SEMP was developed for the Newton Falls Project however, it is specific to shoreline erosion monitoring in regards to historic properties for the Upper Newton Falls impoundment and does not require any monitoring for the Lower Newton Falls development.

Information Required to Support Recreational Resources Standards.

III.H.1 Recreational Resources: Lower Newton Falls Development Zone 1

Criterion	*Standard*	*Instructions*
H	2	Agency Recommendation: • 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 Newton Falls Project is in compliance with recreational access, accommodation, and facilities conditions in the FERC license. Article 406 of the 2003 FERC license requires the licensee to file for FERC approval a recreation plan to construct, operate, and maintain then-proposed recreational facilities at each development. The Licensee filed the final recreation plan for the Newton Falls Project on March 7, 2005. An Order Approving the Recreation Plan under Article 406 was issued on February 9, 2006 by FERC.

The enhancements outlined in the plan have all been implemented by the Licensee and are further described in the final recreation plan for the Newton Falls Project that was filed with FERC. As-built drawings of completed recreation facilities were submitted to FERC on July 23, 2007. The Licensee continues to maintain these recreation facilities and files FERC Form 80 recreational use data for this development every 5 years as required.

Final Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10478399

Order Approving Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10947857

License Article 406 –As-built Exhibit R Drawings
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408044
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408075
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

III.H.2 Recreational Resources: Lower Newton Falls Development Zone 2

Criterion	*Standard*	*Instructions*
H	2	Agency Recommendation: • Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations.

Criterion	*Standard*	*Instructions*
		• Document that the facility is in compliance with all such recommendations and plans.

The Newton Falls Project is in compliance with recreational access, accommodation, and facilities conditions in the FERC license. Article 406 of the 2003 FERC license requires the licensee to file for FERC approval a recreation plan to construct, operate, and maintain then-proposed recreational facilities at each development. The Licensee filed the final recreation plan for the Newton Falls Project on March 7, 2005. An Order Approving the Recreation Plan under Article 406 was issued on February 9, 2006 by FERC.

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License Article 406 –As-built Exhibit R Drawings
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https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408075
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

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Final Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10478399

Order Approving Recreation Management Plan
https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10947857

License Article 406 –As-built Exhibit R Drawings
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408044
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408075
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408076
https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11408077

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 certification of the applying facility is issued, the LIHI Certification Mark License Agreement must be executed prior to marketing the electricity product as LIHI Certified.

The undersigned Applicant 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: Matthew Johnson Title: Director of Asset Management

Matt Johnson

State of New York

County of Warren)

On this, the 9th day of October, 2017, before me a notary public, the undersigned officer, personally appeared Matthew Johnson, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained. In witness hereof, I hereunto set my hand and official seal.

Notary Public Brenda J Schermerhorn

BRENDA J SCHERMERHORN
NOTARY PUBLIC, State of New York
Reg. No. 01SC6169934
Qualified in Saratoga County
My Commission Expires July 2, 2019

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	200 Donald Lynch Boulevard, Marlborough, MA 01752
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

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_X_, Water Quality _X_, Fish/Wildlife Resources _X_, Watersheds __, T/E Spp. __, Cultural/Historic Resources __, Recreation _X_):	
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. _X_, 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_X_, Water Quality _X_, Fish/Wildlife Resources _X_, Watersheds __, T/E Spp. _X_, 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. _X_, 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__, Water Quality __, Fish/Wildlife Resources __, Watersheds __, T/E Spp. __, Cultural/Historic Resources _X_, 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

PHOTOS OF KEY PROJECT FEATURES

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

UPPER NEWTON FALLS DEVELOPMENT

Photo 1. Upper Newton Falls spillway and floodgate section.

Photo 2. Upper Newton Falls spillway and minimum flow outlet.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 3. Upper Newton Falls bypassed reach.

Photo 4. Upper Newton Falls bypassed reach.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 5. Upper Newton Falls bypassed reach.

Photo 6. Upper Newton Falls tailrace.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 7. Confluence of Upper Newton Falls tailrace and bypassed reach.

Photo 8. Confluence of Upper Newton Falls tailrace and bypassed Reach at Lower Newton Falls impoundment.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 9. Woodstave pipeline from intake.

Photo 10. Woodstave pipeline towards surge tank.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

LOWER NEWTON FALLS DEVELOPMENT

Photo 11. Lower Newton Falls impoundment.

Photo 12. Lower Newton Falls forebay wall and spillway.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 13. Lower Newton Falls spillway and minimum flow outlet.

Photo 14. Lower Newton Falls reservoir and powerhouse.

APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 15. Lower Newton Falls bypassed reach.

Photo 16. Confluence of Lower Newton Falls tailrace and bypassed reach.

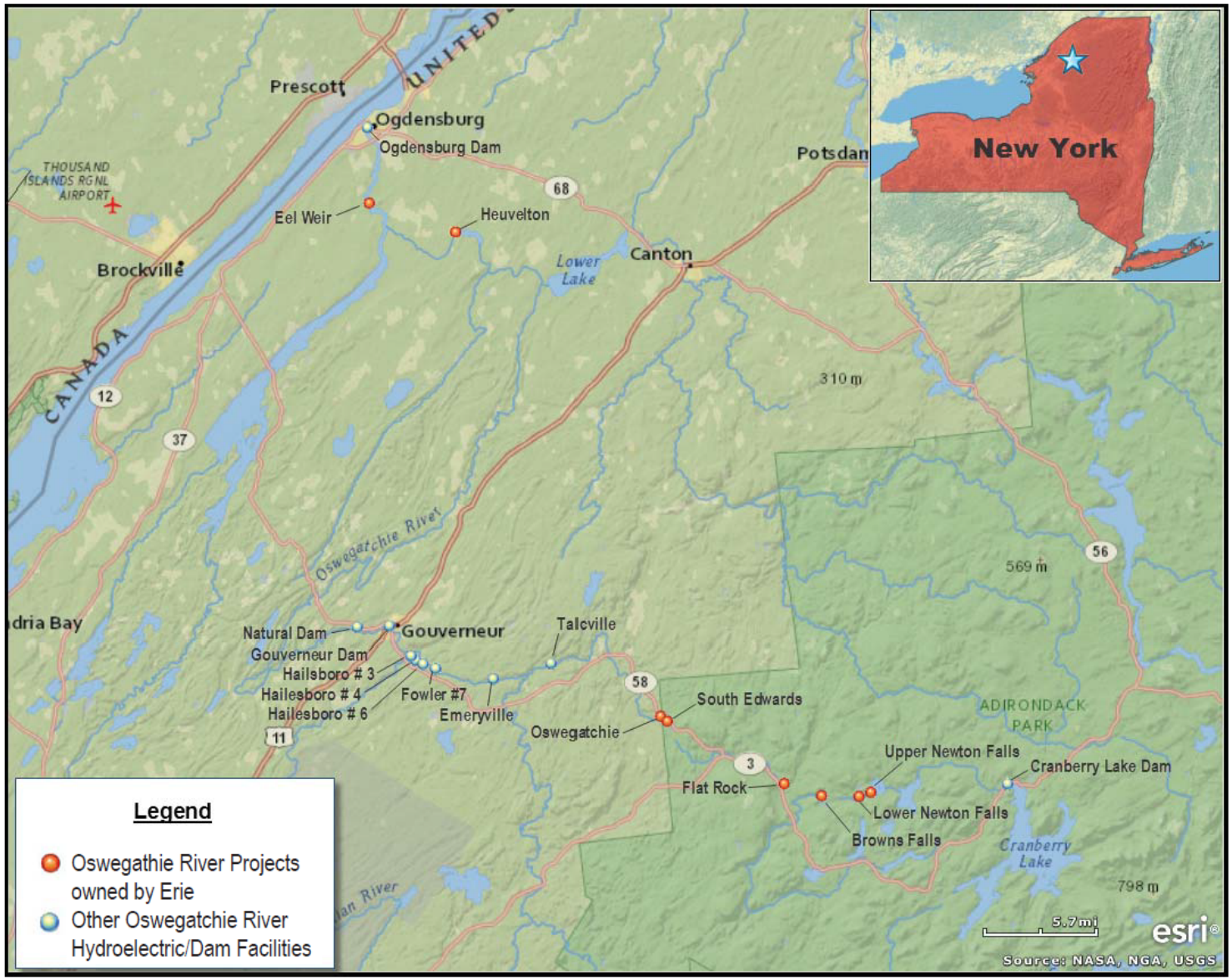
APPENDIX A – PHOTOGRAPHS OF KEY FEATURES OF THE FACILITY AND EACH OF THE DESIGNATED ZONES OF EFFECT

Photo 17. Lower Newton Falls tailrace.

APPENDIX B

PROJECT MAPS AND AERIALS

APPENDIX B – MAPS, AERIAL PHOTOS, AND/OR PLAN VIEW DIAGRAMS OF FACILITY AREA AND RIVER BASIN



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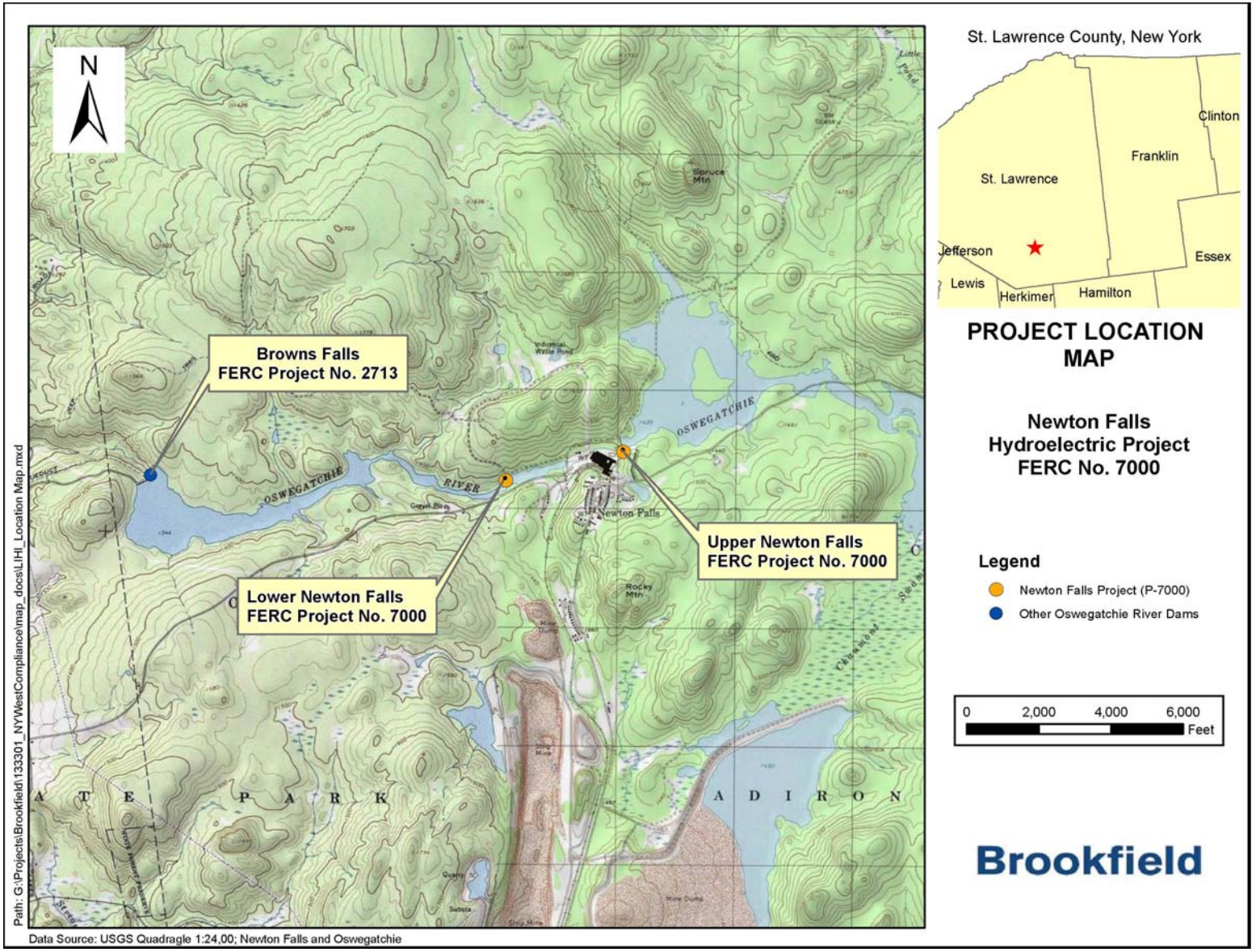

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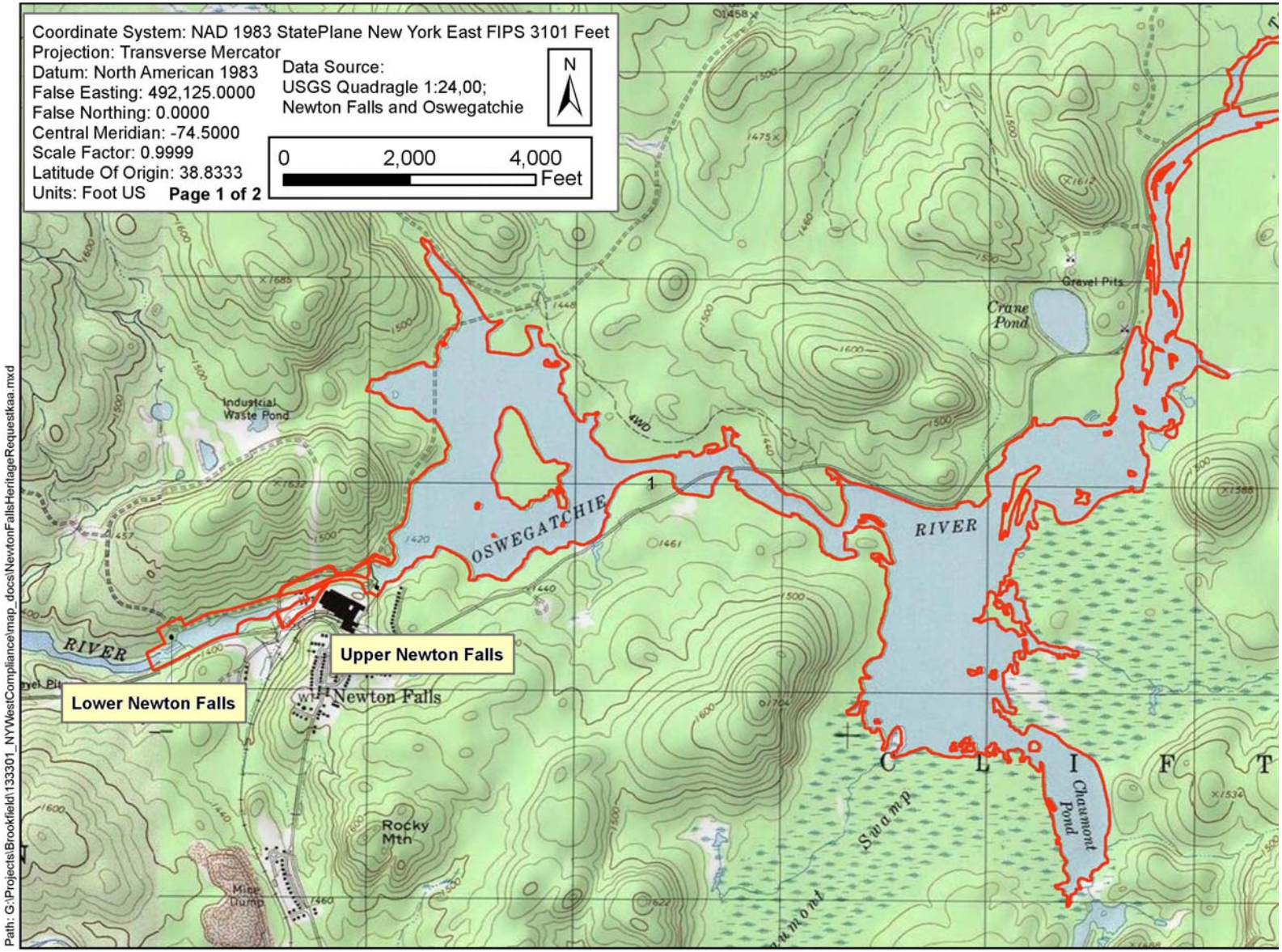

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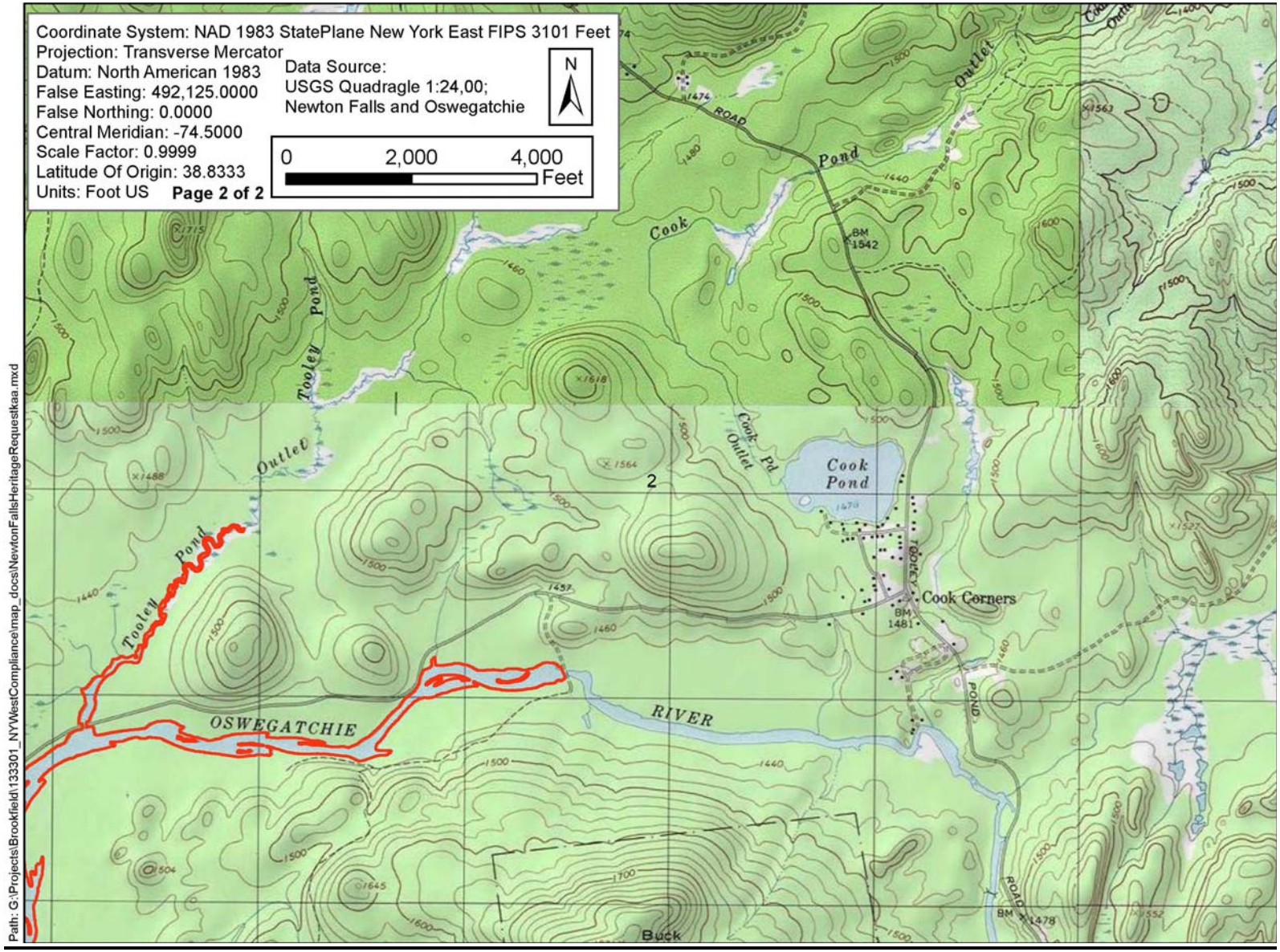

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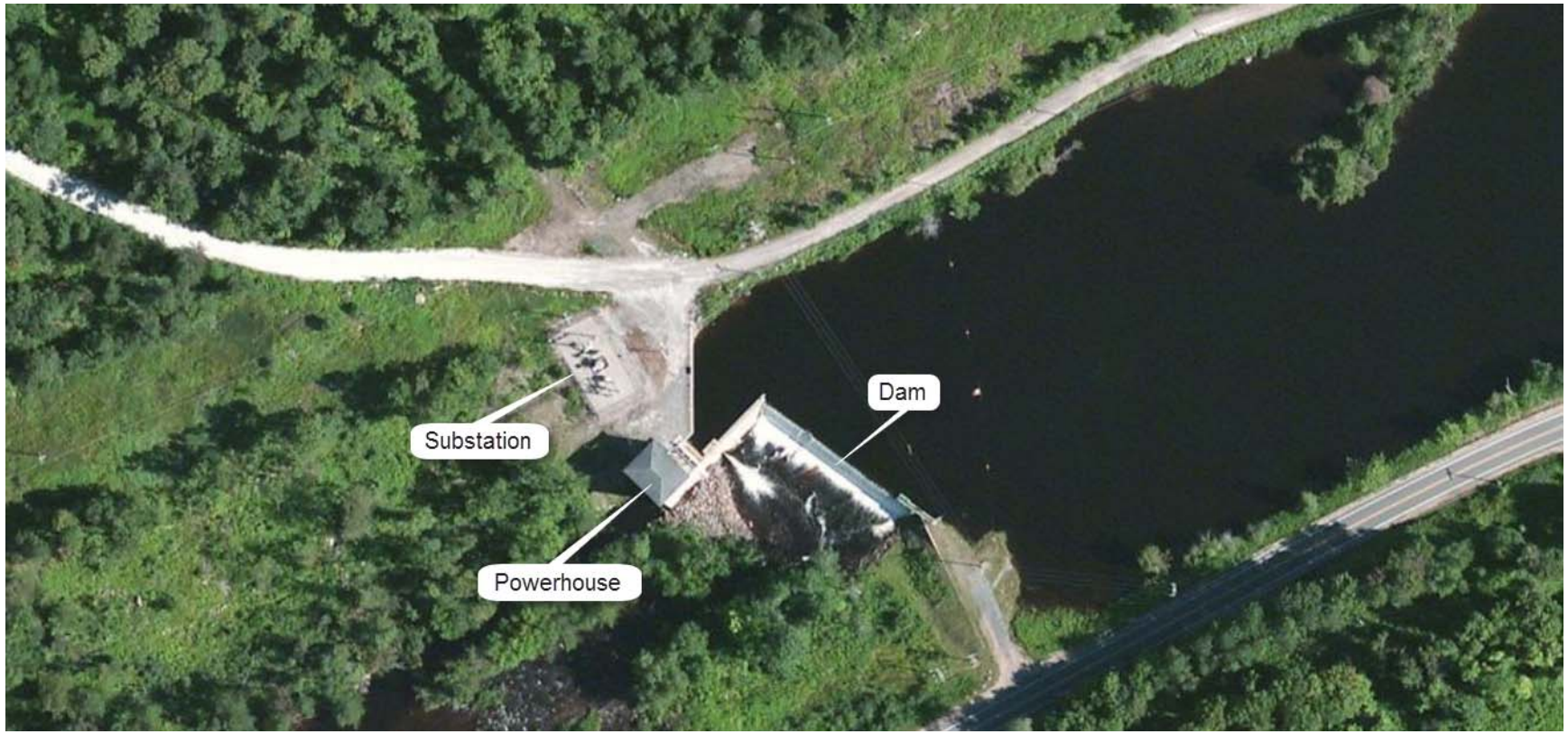
UPPER NEWTON FALLS DEVELOPMENT

APPENDIX B – MAPS, AERIAL PHOTOS, AND/OR PLAN VIEW DIAGRAMS OF FACILITY AREA AND RIVER BASIN

LOWER NEWTON FALLS DEVELOPMENT



APPENDIX C

401 WATER QUALITY CERTIFICATION CONSULTATION

Brookfield

Brookfield Renewable
184 Elm Street
Potsdam, NY 13676

Tel 315.267.1020
www.brookfieldrenewable.com

May 12, 2017

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

Subject: **Newton Falls Hydroelectric Project (FERC No. 7000)**
Low Impact Hydropower Institute Re-certification
Water Quality Certificate Verification

Dear Ms. Hart:

Erie Boulevard Hydropower, L.P. (Erie) is applying for Low Impact Hydropower Institute (LIHI) re-certification for the Newton Falls Hydroelectric Project (FERC No. 7000) (Project). The Project is comprised of two hydroelectric developments located at two dams along the Oswegatchie River in St. Lawrence County. From upstream to downstream, these are the Upper Newton Falls (River Mile [RM] 99.6) and Lower Newton Falls (RM 99.1) developments. LIHI requires the re-certification application include confirmation of the Project's compliance with conditions issued pursuant to Clean Water Act Section 401 Water Quality Certification issued for the project, and that the previously issued Water Quality Certificate is still valid.

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 Newton Falls Project on December 20, 2002 is still valid. Please provide this confirmation by reply to this letter via letter or email.

Erie would appreciate 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.

Respectfully submitted,

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

cc: D. Daoust (Erie)
I. Borlang (Erie)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, 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

March 5, 2018

Daniel Daoust
Brookfield Renewable
Erie Boulevard Hydropower, L.P.
33 West 1st Street South
Fulton, NY 13069

Re: Newton Falls Hydroelectric project (FERC No. 7000) Low Impact Hydropower Institute Re-Certification Water Quality Certificate Verification.

Dear Mr. Daoust,

The current 401 water quality certification issued for the Newton Falls (FERC No. 7000) projects is still valid and as of this date are in compliance with the conditions of the 401 water quality certification.

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

APPENDIX D

RARE, THREATENED AND ENDANGERS SPECIES CONSULTATION

Brookfield

Brookfield Renewable
184 Elm Street
Potsdam, NY 13676

Tel 315.267.1020
www.brookfieldrenewable.com

May 12, 2017

Mr. Nick Conrad
New York State Department of Environmental Conservation
New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757

Subject: **Newton Falls Hydroelectric Project (FERC No. 7000)**
Threatened and Endangered Species Consultation

Dear Mr. Nick Conrad:

Erie Boulevard Hydropower, L.P. (Erie) is the owner, operator, and licensee of the Newton Falls Project (FERC No. 7000) (Project). The Project is comprised of two hydroelectric developments located at two dams along the Oswegatchie River in St. Lawrence County. From upstream to downstream, these are the Upper Newton Falls (River Mile [RM] 99.6) and Lower Newton Falls (RM 99.1) developments.

The Federal Energy Regulatory Commission (FERC) issued the license for this project on August 13, 2003. 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 2002. The licensing process for this project included consultation with resource agencies regarding threatened and endangered species.

Erie is presently working with the Low Impact Hydropower Institute (LIHI) to recertify the Newton Falls Project 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 these two hydroelectric developments.

Per the request from LIHI, Erie respectfully requests information on the presence of threatened or endangered species within the vicinity of the above-listed project. The project location coordinates have been provided below, as well as on the enclosed maps.

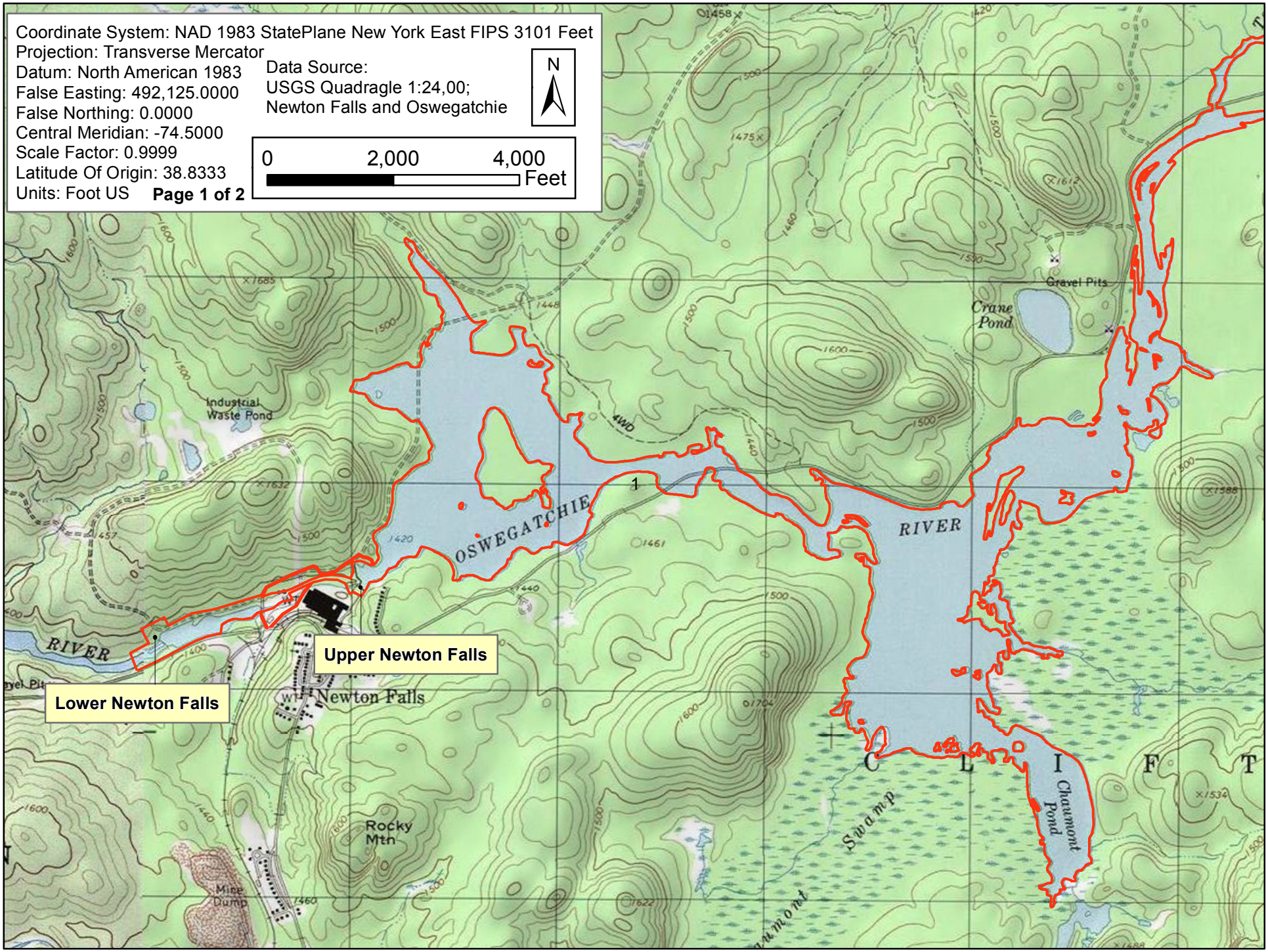
- Upper Newton Falls .... Latitude: 44.215; Longitude: -74.9867
- Lower Newton Falls.... Latitude: 44.2117; Longitude: -74.9983

Erie kindly requestst 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 Danny.Maguire@BrookfieldRenewable.com.

Respectfully submitted,

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

Enclosure



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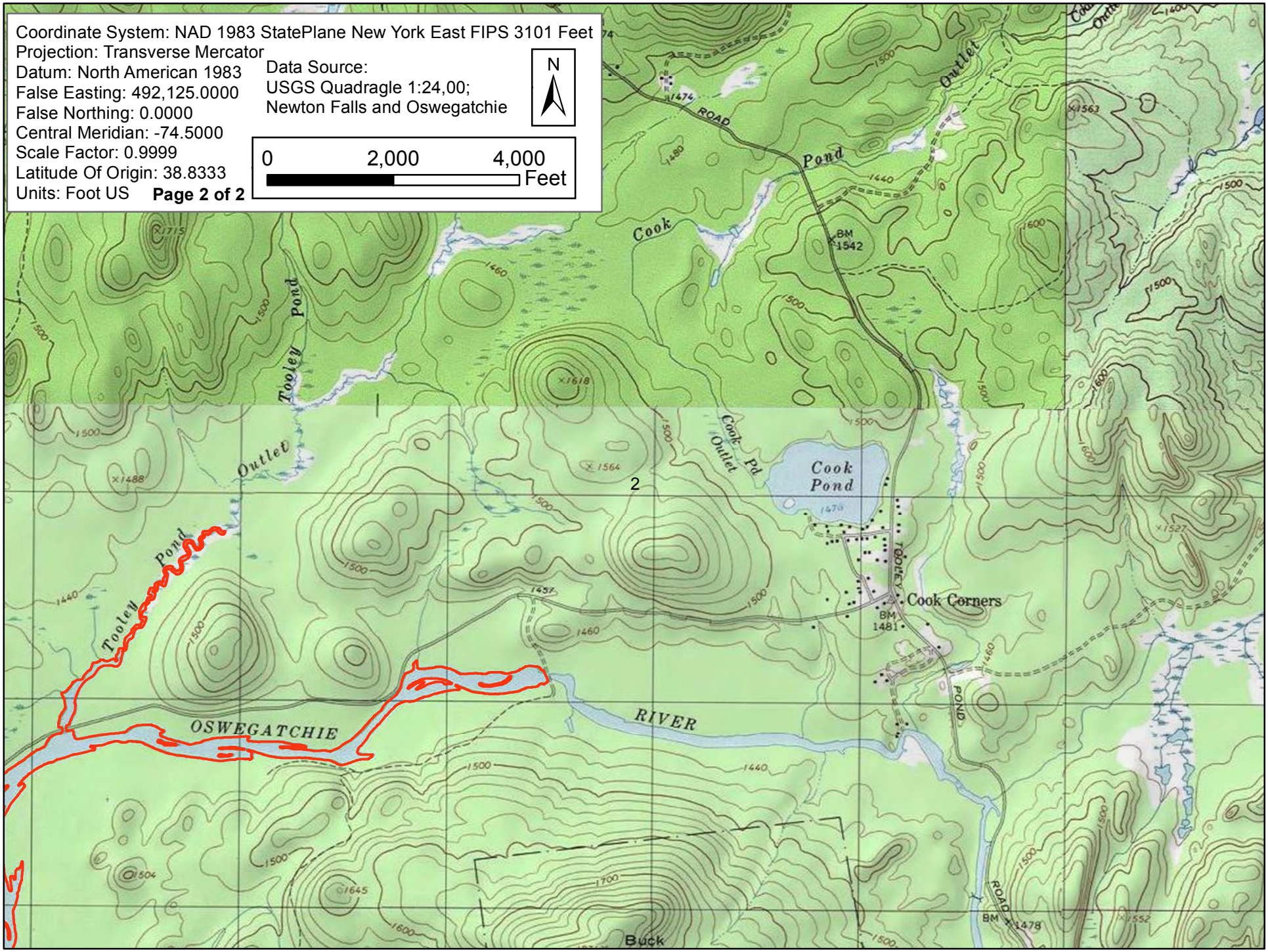

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

June 14, 2017

Daniel Maguire
Brookfield Renewable Erie Boulevard Hydropower, L.P.
184 Elm Street
Potsdam, NY 13676

Re: Newton Falls Hydroelectric Projects (FERC No. 7000)
County: St Lawrence Town/City: Clifton

Dear Mr. Maguire:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above projects.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur within or at the edge of the project boundary .

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, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

663

The following state-listed animals have been documented at the project boundary.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for the project, contact the Permits staff at the NYSDEC Region 6 Office. For information about potential impacts of the project on these species, and how to avoid, minimize, or mitigate any impacts, contact the Wildlife Manager.

A listing of Regional Offices is at http://www.dec.ny.gov/about/558.html.

The following species has been documented nesting on the shore of the Oswegatchie River, at the edge of the project boundary.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Bald Eagle *Nesting*	*Haliaeetus leucocephalus*	Threatened		14072

The following rare plants and rare animals have been documented within the project boundary.

The following animal, while not listed by New York State as Endangered or Threatened, is of conservation concern to the state.
The following plant is listed as Endangered or Threatened by New York State, and so is a vulnerable natural resource of conservation concern.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*	
Common Loon *Breeding*	*Gavia immer*	Special Concern		
Oswegatchie River Reservoir				5294
New England Northern Reedgrass	*Calamagrostis stricta* ssp. *inexpansa*	Threatened	Imperiled in NYS	
Oswegatchie River Islands, 2004-08-24: A wetland among islands in the river.				11946

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 listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9349
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: June 06, 2017
Consultation Code: 05E1NY00-2017-SLI-2476
Event Code: 05E1NY00-2017-E-07039
Project Name: Newton Falls Hydroelectric Project

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 13045-9349
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2017-SLI-2476

Event Code: 05E1NY00-2017-E-07039

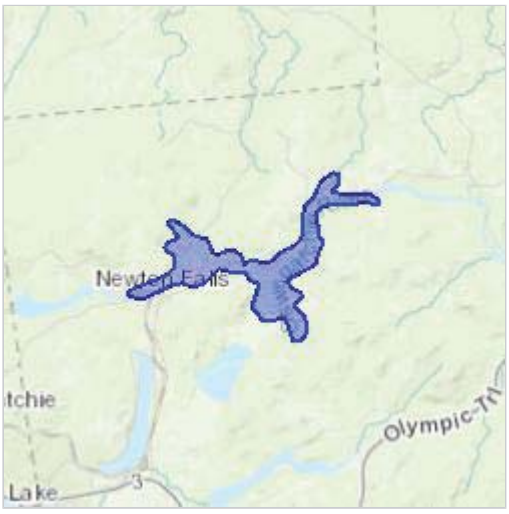
Project Name: Newton Falls Hydroelectric Project

Project Type: DAM

Project Description: The Newton Falls Hydroelectric Project is a 2.22 MW project that consists of two developments (Upper Newton Falls - RM 99.6 and Lower Newton Falls - RM 99.1), which are located on the Oswegatchie River in the Town of Clifton, St. Lawrence County, New York. The Project is located approximately 98 miles upstream of the river's confluence with the St. Lawrence River. The Newton Falls Project is applying to the Low Impact Hydropower Institute (LIHI) for a recertification of their project that expires on November 2, 2017 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.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.22158018090386N74.97378023603207W



Counties: St. Lawrence, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on your 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Northern Long-eared Bat *(Myotis septentrionalis)*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9045

Critical habitats

There are no critical habitats within your project area.

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
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June 14, 2017

Daniel Maguire
Brookfield Renewable Erie Boulevard Hydropower, L.P.
184 Elm Street
Potsdam, NY 13676

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Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

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