

# Brookfield

## Low Impact Hydropower Institute Recertification Application

### Sworn Statement and Waiver of Liability

**Certified Facility Name:** Raquette River Project (FERC Nos. 2060, 2084, 2320, 2330)  
**Location:** Raquette River, New York  
**LIHI Certification No.:** 000014  
**Date of Issuance:** October 21, 2004  
**Effective Date:** July 9, 2004  
**Statement Period:** July 9, 2014 – July 9, 2019

Sworn Statement:

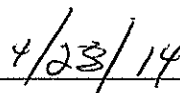
I hereby certify that the information provided in this Application is true and correct to the best of my knowledge.

Waiver of Liability:

The primary goal of the Low Impact Hydropower Institute's Certification Program is public benefit. The Governing Board and its agents are not responsible for financial or other private consequences of its certification decisions. The undersigned Applicant agrees to hold the Low Impact Hydropower Institute, the Governing Board and its agents harmless for any decision rendered on this or other applications or on any other action pursuant to the Low Impact Hydropower Institute's Certification Program.



Thomas Uncher  
Vice President, North American Operations



Date

**LOW IMPACT HYDROPOWER INSTITUTE**

APPENDIX B – QUESTIONNAIRE  
DECEMBER, 2013 REVISION

<b>Background Information</b>	
<p>1) Name of the Facility as used in the FERC license/exemption.</p>	<p>Four Raquette River Projects consisting of the Carry Falls Project No. 2060, Upper Raquette River Project No. 2084, Middle Raquette River Project No. 2320 and the Lower Raquette River Project No. 2330, were included in the Raquette River Settlement of March 1998 and include the following fourteen facilities (from upstream to downstream): Carry Falls, Stark, Blake, Rainbow, Five Falls, South Colton, Higley, Colton, Hannawa, Sugar Island, Norwood, East Norfolk, Norfolk and Raymondville.</p>
<p>2) Applicant's name, contact information and relationship to the Facility. If the Applicant is not the Facility owner/operator, also provide the name and contact information for the Facility owner and operator. Also provide contact information for Compliance and Accounts Payable, including email addresses.</p>	<p>Mr. Matthew Johnson Compliance Manager Brookfield Renewable Energy Group 399 Big Bay Road Queensbury, NY 12804</p>
<p>3) Location of Facility including (a) the state in which Facility is located; (b) the river on which Facility is located; (c) the river-mile location of the Facility dam; (d) the river's drainage area in square miles at the</p>	<p><b>Carry Falls</b> a) New York b) Raquette River c) 68 miles (upstream of confluence with St. Lawrence River) d) 877 Sq. Mi. Total e) See other dams listed.</p>

Facility intake; (e) the location of other dams on the same river upstream and downstream of the Facility; and (f) the exact latitude and longitude of the Facility dam.

f) Coordinates: 44.4352 / -74.7473

**Stark**

- a) New York
- b) Raquette River
- c) 66 miles (upstream of confluence with St. Lawrence River)
- d) 877 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.45112 / -74.76587

**Blake**

- a) New York
- b) Raquette River
- c) 62 miles (upstream of confluence with St. Lawrence River)
- d) 908 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.502 / -74.7461

**Rainbow**

- a) New York
- b) Raquette River
- c) 56 miles (upstream of confluence with St. Lawrence River)
- d) 929 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.51667 / -74.82045

**Five Falls**

- a) New York
- b) Raquette River
- c) 54 miles (upstream of confluence with St. Lawrence River)
- d) 932 Sq. Mi. Total

- e) See other dams listed.
- f) Coordinates: 44.52994 / -74.84340

**South Colton**

- a) New York
- b) Raquette River
- c) 52 miles (upstream of confluence with St. Lawrence River)
- d) 942 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.51744 / -74.88137

**Higley**

- a) New York
- b) Raquette River
- c) 47 miles (upstream of confluence with St. Lawrence River)
- d) 979 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.53053 / -74.93198

**Colton**

- a) New York
- b) Raquette River
- c) 45 miles (upstream of confluence with St. Lawrence River)
- d) 981 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.55520 / -74.93935

**Hannawa**

- a) New York
- b) Raquette River
- c) 39 miles (upstream of confluence with St. Lawrence River)

- d) 993 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.61185 / -74.97466

**Sugar Island**

- a) New York
- b) Raquette River
- c) 38 miles (upstream of confluence with St. Lawrence River)
- d) 994 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.629798 / -74.974045

**Norwood**

- a) New York
- b) Raquette River
- c) 28 miles (upstream of confluence with St. Lawrence River)
- d) 1,045 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.7433 / -75.0053

**East Norfolk**

- a) New York
- b) Raquette River
- c) 23 miles (upstream of confluence with St. Lawrence River)
- d) 1,063 Sq. Mi. Total
- e) See other dams listed.
- f) Coordinates: 44.794722 / -74.98556

**Norfolk**

- a) New York
- b) Raquette River

	<ul style="list-style-type: none"> <li>c) 22 miles (upstream of confluence with St. Lawrence River)</li> <li>d) 1,077 Sq. Mi. Total</li> <li>e) See other dams listed.</li> <li>f) Coordinates: 44.80222 / -74.99055</li> </ul> <p><b>Raymondville</b></p> <ul style="list-style-type: none"> <li>a) New York</li> <li>b) Raquette River</li> <li>c) 20 miles (upstream of confluence with St. Lawrence River)</li> <li>d) 1,066 Sq. Mi. Total</li> <li>e) See other dams listed.</li> <li>f) Coordinates: 44.8339 / -74.9806</li> </ul>
4)	<p>Installed capacity.</p> <p>Total installed capacity = 162.5 MW (FERC License). By project, installed capacity is as follows:</p> <ul style="list-style-type: none"> <li>Carry Falls: 0.0 MW (storage reservoir)</li> <li>Upper Raquette: 102.4 MW</li> <li>Middle Raquette: 45.9 MW</li> <li>Lower Raquette: 13.7 MW (upgraded 2006-2008)</li> </ul>
5)	<p>Average annual generation.</p> <p>807,390 megawatt hours</p>
6)	<p>Regulatory status.</p> <p>Relicensed via a collaborative Settlement. The Settlement was signed in 1998 and the four new licenses were issued in February 2002.</p>
7)	<p>Reservoir volume and surface area measured at the normal maximum operating level.</p> <ul style="list-style-type: none"> <li>Carry Falls: 104,463 acre feet and 3,000 surface acres</li> <li>Stark: 12,000 acre feet and 641 surface acres</li> <li>Blake: 12,800 acre feet and 660 surface acres</li> <li>Rainbow: 12,700 acre feet and 710 surface acres</li> <li>Five Falls: 2,300 acre feet and 120 surface acres</li> <li>South Colton: 3,000 acre feet and 225 surface acres</li> </ul>

8) Area occupied by non-reservoir facilities (e.g., dam, penstocks, powerhouse).	<p>Higley: 4,400 acre feet and 742 surface acres          Colton: 620 acre feet and 195 surface acres          Hannawa: 690 acre feet and 204 surface acres          Sugar Island: 55 acre feet and 29 surface acres          Norwood: 1,900 acre feet and 350 surface acres          East Norfolk: 360 acre feet and 135 surface acres          Norfolk: 35 acre feet and 10 surface acres          Raymondville: 315 acre feet and 50 surface acres</p> <p>Not required.</p>
9) Number of acres inundated by the Facility.	Not required.
10) Number of acres contained in a 200-foot zone extending around entire reservoir.	Not required.
11) Contacts for Resource Agencies and non-governmental organizations	N/A
12) Description of the Facility, its mode of operation (i.e., peaking/run of river) and photographs, maps and diagrams.	Project Description and Project Operations excerpts from License are attached. Exhibit F and G Project Drawings are attached.
<b>Questions for “New” Facilities Only:</b> If the Facility you are applying for is “new” (i.e., an existing dam that added	

<p>or increased power generation capacity after August of 1998) please answer the following questions to determine eligibility for the program.</p>	
<p>13) When was the dam associated with the Facility completed?</p>	<p>1911</p>
<p>14) When did the added or increased generation first generate electricity? If the added or increased generation is not yet operational, please answer question 18 as well.</p>	<p>1) Higley redevelopment: September 2003 2) Lower Raquette (Norwood, East Norfolk, Norfolk, &amp; Raymondville) redevelopment: 2006-2008.</p>
<p>15) Did the added or increased power generation capacity require or include any new dam or other diversion structure?</p>	<p>Higley Redevelopment – penstock configuration change, four penstocks versus one penstock. Lower Raquette Redevelopment- turbine and generator upgrades.</p>
<p>16) Did the added or increased capacity include or require a change in water flow through the facility that worsened conditions for fish, wildlife, or water quality (for example, did operations change from run-of-river to peaking)?</p>	<p>The DEC (May 17, 2002) and FWS (May 22, 2002) stated that the revised configuration was better suited to efficiently matching the range of flows expected than the original, single penstock configuration. This correspondence was filed with the Commission on May 22, 2002. The Commission provided verbal approval to proceed with the redevelopment project on May 31, 2002, followed by written approval on June 4, 2002. This redevelopment project also expedited fish protection measures by 10 years. Correspondence attached.</p>
<p>17 (a) Was the existing dam recommended for removal or decommissioning by resource agencies, or recommended for removal or decommissioning by a broad representation of interested persons and</p>	<p>17 (a) <b>NO</b></p>



<p>organizations in the local and/or regional community prior to the added or increased capacity?</p> <p>(b) If you answered “yes” to question 17(a), the Facility is not eligible for certification, unless you can show that the added or increased capacity resulted in specific measures to improve fish, wildlife, or water quality protection at the existing dam. If such measures were a result, please explain.</p>	<p>17 (b) N/A</p>
<p>18 (a) If the added or increased generation is not yet operational, has the increased or added generation received regulatory authorization (e.g., approval by the Federal Energy Regulatory Commission)? If not, the facility is not eligible for consideration; and</p> <p>(b) Are there any pending appeals or litigation regarding that authorization? If so, the facility is not eligible for consideration.</p>	<p>18 (a) N/A</p> <p>18 (b) NO</p>
<p><b>A. Flows</b></p> <p>1) Is the Facility in Compliance with Resource Agency Recommendations issued after December 31, 1986</p>	<p>PASS</p> <p>YES = Pass, Go to B N/A = Go to A2</p> <p>FAIL</p> <p>NO = Fail</p>

regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?

regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?	<p>Yes. The Raquette River Projects are in compliance with the pertinent resource agency recommendations that were provided in the form of the Settlement Agreement and were incorporated into both the state's 401 Water Quality Certifications (WQC), dated June 11, 1998, and the FERC Orders, dated February 13, 2002. The required flows are being implemented according to the schedule in the WQC and Settlement Agreement. All required plans were filed and approved by FERC after appropriate consultation with resource agencies</p> <p>Minimum flows in the bypassed reaches are specified at each development as follows:</p>	
Project/Development Carry Falls Project Upper Raquette River Project Stark Blake	Schedule Date NA 2003 2003	Required Flows No bypass reach 45 cfs / 90 cfs 55 cfs; 120 cfs for walleye spawning season
Rainbow Falls Five Falls	2005 2004	20 cfs 50 cfs; 145 cfs for walleye spawning season
South Colton Middle Raquette River Project Higley	2004	20 cfs/ 60 cfs
Colton	2002	None required in bypass; 20 cfs fish movement Seasonal schedule: 100/240/200/125/90 cfs
Hannawa Sugar Island	2002 2002	50/95/65 cfs 300/400 cfs
Lower Raquette River Project Norwood	2002	No bypass flows required; 20 cfs fish movement
East Norfolk Norfolk Raymondville	2002 2002 2002	75 cfs 55 cfs + 20 cfs No bypass flow required; 20 cfs fish movement

	<p>Base flow requirements below Raymondville: 560 cfs in normal or wet years 290 cfs in dry years</p> <p>The Settlement Agreement and FERC Order also include requirements for filing and implementing a plan for monitoring headwater and tailwater elevations, base flows and minimum flows. These plans were approved by FERC and are being implemented.</p> <p>A letter dated August 14, 2003 from David Stillwell of US Fish and Wildlife Service to Reliant Energy indicated that inspections of the flow and fish movement measures undertaken to date on the Raquette developments were satisfactory.</p> <p><b>Maximum daily reservoir fluctuations</b> under normal flow conditions are limited as follows:</p> <ul style="list-style-type: none"> <li>Carry Falls: 30.0 feet permitted, guide curve</li> <li>Stark: 1 foot</li> <li>Blake: 1 foot</li> <li>Rainbow: 1 foot</li> <li>Five Falls: 2 feet</li> <li>South Colton: 2 feet</li> <li>Higley: 2.5 feet, end of Labor Day weekend to Memorial Day weekend;</li> <li>2.0 feet, Memorial Day weekend to end of Labor Day weekend.</li> <li>Colton: 0.4 feet</li> <li>Hannawa: 0.4 feet</li> <li>Sugar Island: 1 foot</li> <li>Norwood: 0.5 feet</li> <li>East Norfolk 0.5 feet</li> <li>Norfolk: 1 foot</li> <li>Raymondville: 0.5 feet</li> </ul> <p>Erie provides releases for whitewater recreation at Colton, Hannawa and Sugar Island Developments. The whitewater season is designated as July through September. Whitewater budget for years 2002 to 2006 shall not exceed 800 Mwh per year. After</p>	
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	<p>2006 and every five years thereafter, adjustments may be made with a whitewater budget between 400 Mwh and 1,080 Mwh. The approximate peak whitewater flows are: Colton 1250 cfs. Hannawa 800 cfs and Sugar Island 1500 cfs. Ramping flows are an hourly doubling of the instream flow when ascending to the peak flow and an hourly halving when descending and associated energy losses are part of the whitewater budget. An implementation schedule for provisions of flows was contained in the License. Erie has provided the flows in accordance with this schedule and additionally, has filed annual reports on License implementation measures denoting when the flows were initiated. The annual reports, commencing in 2002, have been approved by the Commission via Order Approving Annual Implementation Reports dated, July 30, 2002, June 18, 20003 and June 14, 2004. FWS correspondence dated August 14, 2003 denotes compliance with the flow requirements.</p>	
<p>2) If there is no flow condition recommended by any Resource Agency for the Facility, or if the recommendation was issued prior to January 1, 1987, is the Facility in Compliance with a flow release schedule, both below the tailrace and in all bypassed reaches, that at a minimum meets Aquatic Base Flow standards or "good" habitat flow standards calculated using the Montana-Tennant method?</p>	<p>YES = Pass, go to B NO = Go to A3  N/A</p>	
<p>3) If the Facility is unable to meet the flow standards in A.2., has the Applicant demonstrated, and obtained a letter from the relevant Resource Agency confirming that demonstration, that the flow conditions at the Facility are appropriately protective of fish,</p>	<p>YES = Pass, go to B  N/A</p>	<p>NO = Fail</p>

wildlife, and water quality?		
<b>B. Water Quality</b>	PASS	FAIL
<p>1) Is the Facility either:</p> <p>a) In Compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the Facility after December 31, 1986? Or</p> <p>b) In Compliance with the quantitative water quality standards established by the state that support designated uses pursuant to the federal Clean Water Act in the Facility area and in the downstream reach?</p>	<p>YES = Go to B2</p> <p>1a) <b>Yes.</b> The four Raquette River Projects are in compliance with all conditions issued pursuant to the Clean Water Act – Section 401 Water Quality Certification (WQC) issued for the four projects on June 11, 2002. The Section 401 WQC includes and incorporates the terms of the Settlement Agreement. Therefore, compliance with the WQC implies compliance with the <i>entire</i> Settlement Agreement, including the provisions that were specifically excluded from the FERC license. We have found no instances to date where the applicant has failed to meet the terms of the Settlement Agreement.</p> <p>The WQC contains standard provisions related to erosion and sediment control for project maintenance and construction activities. The NYSDEC has confirmed that Erie has properly consulted with the Department when there has been any construction at the projects that triggers 401 certification conditions. The most prominent occurrence was for redevelopment of the Higley development.</p> <p>1b) N/A</p>	NO = Fail
<p>2) Is the Facility area or the downstream reach currently identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act?</p>	<p>YES = Go to B3</p> <p>NO = Pass</p> <p><b>Yes.</b> The DEC has identified several areas of the Raquette River Projects and associated tributaries in their June 3, 2002 Section 303 (d) List. Carry Falls Reservoir is on the 2002 303(d) list of waterbodies</p>	

	<p>that fail to meet one or more applicable water quality standards.</p> <p>The DEC classifies the project area based on their designated best use. Water classifications for the project areas include Class B (coldwater fishery) (Best use is primary contact recreation and other uses except as a source of water supply for drinking and culinary or food processing purposes), Class C (T) (Coldwater fishery that supports trout) (best use is fishing and all other uses except as a source of water supply for drinking, culinary or food processing purposes and primary contact recreation), and Class D (warm water fishery) (best use is secondary contact recreation).</p>	
<p>3) If the answer to question B.2 is yes, has there been a determination that the Facility does not cause, or contribute to, the violation?</p>	<p>YES = Pass</p> <p>Yes. The DEC Section 303(d) List (attached) indicates atmospheric deposition (acid rain) is the source for all areas of the Raquette River Projects and associated tributaries identified under Section 303 (d). The list indicates that the Carry Falls Reservoir is in non-attainment of water quality standards (categorical: fish consumption) due to mercury contamination from atmospheric deposition. There are no indications that the Raquette Projects contribute to the non-attainment.</p>	<p>NO = Fail</p>
<p><b>C. Fish Passage and Protection</b></p> <p>1) Are anadromous and/or catadromous fish present in the Facility area or are they known to have been present historically?</p>	<p>PASS</p> <p>YES = Go to C2 NO = Go to C6</p> <p>Yes. Eels presently get as far upstream as Hannawa Falls without passage structures. There are reports from USFWS and NYSDEC that stray Pacific salmon which were stocked in Lake Ontario are sometimes found below Raymondville. Also, Bill Gordon of NYSDEC mentioned that sturgeon may occur in the lower Raquette.</p>	<p>FAIL</p>

<p>2) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and downstream passage of anadromous and catadromous fish issued by Resource Agencies after December 31, 1986?</p>	<p>River, but that passage is not deemed desirable</p> <p>YES = Go to C6 N/A = Go to C3</p> <p>Yes. Erie has confirmed with both the USFWS and the NYSDEC that upstream passage for anadromous or catadromous fish was not a management objective at the time of the Settlement Agreement, and no prescriptions or provisions have been made in the agreement or the FERC licenses. The FERC MPEA states at page 125, "Because there are no anadromous fish species in the reach of the Raquette being considered in this MPEA, anadromous fish passage is not recommended at this time".</p> <p>The 2002 Settlement Agreement and the new FERC licenses contain the relevant requirements by Resource Agencies for downstream fish passage in the form of required downstream passage flows, modifications to the structures and streambed in order to make the flows more "fish friendly", and scheduled installation of 1 inch clear spaced bar trashracks to prevent/reduce entrainment. The 2002 Settlement Agreement supercedes previous prescriptions issues by USDOI in 1999.</p> <p>Further, the US Departments of Interior and Commerce have also reserved their authority to prescribe fish passage facilities for the Raquette Project, and Article 403 of the FERC license reserves FERC authority to require construction, operation and maintenance of any such prescribed fish passage facilities.</p>	<p>NO = Fail</p>
<p>3) Are there historic records of</p>	<p>YES = Go to C3a</p>	<p>3)</p>

<p>anadromous and/or catadromous fish movement through the Facility area, but anadromous and/or catadromous fish do not presently move through the Facility area (e.g., because passage is blocked at a downstream dam or the fish no longer have a migratory run)?</p> <p>a) If the fish are extinct or extirpated from the Facility area or downstream reach, has the Applicant demonstrated that the extinction or extirpation was not due in whole or part to the Facility?</p> <p>b) If a Resource Agency Recommended adoption of upstream and/or downstream fish passage measures at a specific future date, or when a triggering event occurs (such as completion of passage through a downstream obstruction or the completion of a specified process), has the Facility owner/operator made a legally enforceable commitment to provide such passage?</p>	<p>NO = Go to C4</p> <p><b>No.</b> FERC's Final Multiple Project Environmental Assessment notes that "Up to the turn of the century, ... the lower Raquette River shared the fish fauna of the St. Lawrence River (including Atlantic salmon), which were unable to travel upstream past Hannawa Falls." (pg 104). Discussions with fisheries biologists at US FWS and NYSDEC indicate that it is not known whether the historic Atlantic salmon populations were sea-run or landlocked. Also, the historic record indicates that Atlantic salmon had disappeared from the Raquette River (in the late 1800s) long before the dams were built (in the 1930s), presumably due to pollution, previous dams (for paper mills, sawmills and other industry), overfishing, and clearcutting in the watershed resulting in higher water temperatures.</p> <p>YES = Go to C3b  N/A = Go to C3b</p> <p>3a) N/A. See response to #3 above.</p> <p>YES = Go to C6  N/A = Go to C4</p> <p>3b) N/A</p>	<p>NO = Fail</p> <p>NO = Fail</p>
<p>4) If, since December 31, 1986:</p> <p>a) Resource Agencies have had the</p>	<p>YES = Go to C4b  NO = Go to C6</p>	



<p>opportunity to issue, and considered issuing, a Mandatory Fish Passage Prescription for upstream and/or downstream passage of anadromous or catadromous fish (including delayed installation as described in C.3.a above), and</p>	<p>N/A = Go to C5</p> <p>Yes, they did.</p>	
<p>b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,</p>	<p>YES = Go to C4c NO = Go to C6 N/A = Go to C5</p>	
<p>c) Was a reason for the Resource Agencies' declining to issue a Mandatory Fish Passage Prescription one of the following: (1) the technological infeasibility of passage, (2) the absence of habitat upstream of the Facility due at least in part to inundation by the Facility impoundment, or (3) the anadromous or catadromous fish are no longer present in the Facility area and/or downstream reach due in whole or part to the presence of the Facility?</p>	<p>No. The agencies included fish passage conditions in the Settlement Agreement.</p> <p>NO = Go to C6 N/A = Go to C5</p> <p>No. See response to C3 above. The lack of anadromous fish in the river is not attributed to the presence of the applicant's facilities.</p> <p>Erie has confirmed with both the USFWS and the NYSDEC that upstream passage for anadromous or catadromous fish was not a management objective at the time of the Settlement Agreement, and no prescriptions or provisions have been made in the settlement agreement or the FERC licenses. The FERC MPEA states at page 125 "Because there are no anadromous fish species in the reach of the Raquette being considered in this MPEA, anadromous fish passage is not</p>	<p>YES = Fail</p>

	<p>recommended at this time".</p> <p>Nevertheless, in Article 403 of each FERC license, the Department of Interior has reserved its right to issue fish passage prescriptions in the future in the event circumstances change.</p>	
<p>5) If C4 was not applicable:</p> <p>a) Are upstream and downstream fish passage survival rates for anadromous and catadromous fish at the dam each documented at greater than 95% over 80% of the run using a generally accepted monitoring methodology? Or</p> <p>b) If the Facility is unable to meet the fish passage standards in 5.a, has the Applicant either i) demonstrated, and obtained a letter from the U.S. Fish and Wildlife Service or National Marine Fisheries Service confirming that demonstration, that the upstream and downstream fish passage measures (if any) at the Facility are appropriately protective of the fishery resource, or ii) committed to the provision of fish passage measures in the future and obtained a letter from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service indicating that passage measures are not currently</p>	<p>YES = Go to C6</p> <p>N/A</p>	<p>NO = Fail</p>

warranted?		
6) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish?	<p>YES = Go to C7 N/A = Go to C7</p> <p><b>Yes.</b> The Settlement Agreement and FERC license requirements for downstream fish passage at all 14 developments are intended to provide for downstream passage of riverine fish (yellow perch, rock bass, white sucker, brown bullhead, walleye, northern pike and pumpkinseed) and American eels in the lower river. There are no mandatory prescriptions for the upstream passage of riverine fish. The downstream passage is facilitated by minimum flows and new release structures at Stark, Blake, Rainbow, Five Falls, South Colton, Higley, Colton, Hannawa, Sugar Island, Norwood, East Norfolk, Norfolk and Raymondville. Carry Falls has no fish movement requirement.</p>	NO = Fail
7) Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrapment protection, such as tailrace barriers?	<p>YES = Pass, go to D N/A = Pass, go to D</p> <p><b>Yes.</b> The Settlement Agreement and FERC License require the phased future installation of 1-inch clear spacing physical barrier (bars or overlay) at the location of the existing trash racks at each development, beginning in 2002 to 2007 in the Lower Raquette; 2007 to 2011 in the Middle Raquette, and 2013 to 2019 in the Upper Raquette. The new one inch trashracks are already installed at Higley, several years ahead of schedule, as a result of the redevelopment construction there. Parties to the settlement commented that the fish protection structures were not viewed by the parties as a high priority, and thus were scheduled for future installation to spread the costs out over time.</p>	NO = Fail
<b>D. Watershed Protection</b>	PASS	FAIL

<p>1) Is there a buffer zone dedicated for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low-impact recreation) extending 200 feet from the average annual high water line for at least 50% of the shoreline, including all of the undeveloped shoreline?</p>	<p>YES = Eligible for 3 extra years of certification; Go to D4</p> <p>Yes. A key issue in the Settlement Agreement was to reduce the pond level fluctuations at Carry Falls, Stark, and other project developments to improve habitat, recreational values, and to protect shoreline. Erie has implemented a new "guide curve" for Carry Falls that sets seasonal pond elevation targets and reduces the drawdown from 55 feet to 30 feet. In addition, the drawdown at the Stark impoundment (which backwaters to Carry Falls) was reduced from as much as 23 feet down to 1 foot or less (due to the reduced drawdown at Carry Falls and the decoupling of the operation of the two reservoirs).</p> <p>The parties to the settlement negotiation were careful to consider the value of the Carry Falls storage for peaking power and river regulation, and accordingly carefully balanced the multiple resource values of the river in limiting the drawdown to 30 feet. The June 2002 Water Quality Certification provides assurance that the watershed and shoreline resources are protected.</p> <p>Pond level fluctuations have been reduced at other project impoundments as part of the license terms.</p> <p>The FERC licenses and WQCs also require erosion and sediment control plans for any new construction, maintenance and management facilities on project lands. According to the FERC licenses, conveyance of land rights for project lands (e.g. utility easements) to other parties also requires standards and protocols for protection, maintenance and enhancement of surrounding lands.</p> <p>In addition, a provision of the Settlement Agreement provides for adding certain lands associated with recreation access, canoe portages,</p>	<p>NO = Go to D2</p>
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	<p>and recreation trails to be within the project boundary. Further, a provision of the settlement agreement outside of the FERC project boundaries required the previous owner, Niagara Mohawk, to convey 12,000 acres of neighboring lands to the State of New York for permanent protection as part of the Settlement Agreement to mitigate for project impacts.</p>	
<p>2) Has the Facility owner/operator established an approved watershed enhancement fund that: 1) could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.1, and 2) has the agreement of appropriate stakeholders and state and federal resource agencies?</p>	<p>YES = Eligible for 3 extra years of certification; Go to D4  N/A</p>	<p>NO = Go to D3</p>
<p>3) Has the Facility owner/operator established through a settlement agreement with appropriate stakeholders, with state and federal resource agencies agreement, an appropriate shoreland buffer or equivalent watershed land protection plan for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low impact recreation)?</p>	<p>YES = Go to D4  N/A</p>	<p>NO = Go to D4</p>
<p>4) Is the facility in compliance with both state and federal resource agencies</p>	<p>YES = Pass, go to E N/A = Pass, go to E</p>	<p>No = Fail</p>

<p>recommendations in a license approved shoreland management plan regarding protection, mitigation or enhancement of shorelands surrounding the project?</p>	<p><b>Yes.</b></p>	
<p><b>E. Threatened and Endangered Species Protection</b></p> <p>1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?</p>	<p>PASS</p> <p>YES = Go to E2 NO = Pass, go to F</p> <p><b>Yes.</b> Except for the bald eagle and occasional transient species, there are no state or federal threatened or endangered species present in the Raquette River project areas or downstream reaches. Bald eagle nest sites, including at least one active site, exist near the Carry Falls impoundment.</p> <p>The yellow lampmussel exists in the vicinity of the Lower and Middle Raquette Projects, and is considered a species of concern/interest by the FWS and NYS DEC. The FERC MPEA notes that two state-listed species have been documented in the vicinity of the projects: the common loon (a protected wildlife/special concern species), and the spruce grouse (a threatened species).</p> <p>Erie surveyed reaches of the river and the final EA concluded no further studies required at this time. The FWS and DEC did not provide any comments on the final EA conclusions. Attached are copies of the appropriate documentation.</p> <p>The Bald Eagle Protection and Management Plan, approved by FERC on July 17, 2003, continues to be implemented. FERC approved the</p>	<p>FAIL</p>

	2008 Bald Eagle Monitoring Report filing on May 26, 2009. Correspondence is attached.	
<p>2) If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?</p>	<p>YES = Go to E3 N/A = Go to E3 N/A</p>	NO = Fail
<p>3) If the Facility has received authorization to incidentally Take a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental Take statement; (ii) Obtaining an incidental Take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authorization pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authorization?</p>	<p>YES = Go to E4 N/A = Go to E5 N/A</p>	NO = Fail
<p>4) If a biological opinion applicable to the Facility for the threatened or endangered species has been issued, can the Applicant demonstrate that:</p>	<p>YES = Pass, go to F N/A</p>	NO = Fail

<p>a) The biological opinion was accompanied by a FERC license or exemption or a habitat conservation plan? Or</p> <p>b) The biological opinion was issued pursuant to or consistent with a recovery plan for the endangered or threatened species? Or</p> <p>c) There is no recovery plan for the threatened or endangered species under active development by the relevant Resource Agency? Or</p> <p>d) The recovery plan under active development will have no material effect on the Facility's operations?</p>		
<p>5) If E.2 and E.3 are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?</p>	<p>YES = Pass, go to F</p> <p>Yes, The Settlement Agreement, signed by state and federal resource agencies, declares that project facilities and operations consistent with the agreement will have no adverse effect on federal or state listed threatened or endangered species.</p> <p>Article 407 of the FERC Order Issuing New License for the Carry Falls and Upper Raquette Projects, issued February 13, 2003, required Erie to file a bald eagle protection and management plan that contains measures for implementing any necessary signage to warn users not to</p>	<p>NO = Fail</p>



	<p>disturb nests, and monitoring the results of implemented measures, and reporting to US FWS, NYSDEC and FERC. The required plan was prepared including consultation with NYSDEC and USFWS, and was filed with FERC on April 11, 2003. An Order from FERC dated July 17, 2003 accepted and approved the plan. At this time, the agencies have decided <i>not</i> to mark the nests with warning signs, in order to avoid attracting attention from users which are normally dispersed over a remote area. NYSDEC monitors the nests.</p> <p>In July 2000, Erie conducted surveys following a study plan developed in consultation with US FWS and NYSDEC. The surveys indicated that yellow lampmussel is more abundant in the Raquette River than previously noted, and stable, self-sustaining populations exist where they had not been previously reported. The FERC MPEA concluded that reductions in pond level fluctuations at several project impoundments would improve and increase habitat further for yellow lampmussel, so no further studies or requirements were recommended.</p>	
<p><b>F. Cultural Resource Protection</b>  1) If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license or exemption?</p>	<p>PASS</p> <p>YES = Pass, go to G  N/A = Go to F2</p> <p><b>Yes.</b> On February 6, 2002, Erie signed a fully revised "Programmatic Agreement" with FERC, the Advisory Council on Historic Preservation, and the New York State Historic Preservation Officer (SHPO) for the four Raquette River projects, with the St. Regis Tribe and the US Department of Interior as concurring parties. By letter dated February 11, 2002, the Advisory Council on Historic Preservation filed with FERC the executed agreement that amended the previous 1996 Programmatic Agreement. On April 14, 2003, Erie</p>	<p>FAIL</p> <p>NO = Fail</p>

	<p>submitted its required Historic Property Management Plan to FERC, and has yet to receive a response. Erie reports that it has consulted as necessary with the State Historic Preservation Officer and the St. Regis Mohawk Tribe on ground disturbing activities.</p>	
<p>2) If not FERC-regulated, does the Facility owner/operator have in place (and is in Compliance with) a plan for the protection, mitigation or enhancement of impacts to Cultural Resources approved by the relevant state or federal agency or Native American Tribe, or a letter from a senior officer of the relevant agency or Tribe that no plan is needed because Cultural Resources are not negatively affected by the Facility?</p>	<p>YES = Pass, go to G  N/A</p>	<p>NO = Fail</p>
<p><b>G. Recreation</b>  1) If FERC-regulated, is the Facility in Compliance with the recreational access, accommodation (including recreational flow releases) and facilities conditions in its FERC license or exemption?</p>	<p>PASS  YES = Go to G3 N/A = Go to G2  Yes. Erie filed a recreation plan in accordance with the License orders and settlement agreement. A Raquette River Advisory Council (RRAC) has convened and has established its bylaws, and will advise the Project owner on issues related to recreation, and other resource enhancements.  Land &amp; Water Associates has confirmed that the recreation facility improvements required in the FERC license are being completed according to schedule in a timely manner, in consultation with parties</p>	<p>FAIL  NO = Fail</p>

	<p>to the settlement agreement, including the Adirondack Mountain Club. The parties we contacted expressed satisfaction with Erie's efforts and progress, and expressed no problems with compliance with the License or Settlement recreation requirements.</p> <p>The previous project owner, Niagara Mohawk, conducted extensive studies in the pre-application and settlement processes determine the most highly valued whitewater releases. The settlement agreement calls for annual releases, according to an annual whitewater budget, at Colton (the most highly values bypass reach), Sugar Island and/or Hannawa. Releases have been well received by the whitewater boaters.</p>	
<p>2) If not FERC-regulated, does the Facility provide recreational access, accommodation (including recreational flow releases) and facilities, as Recommended by Resource Agencies or other agencies responsible for recreation?</p>	<p>YES = Go to G3</p> <p>N/A</p>	<p>NO = Fail</p>
<p>3) Does the Facility allow access to the reservoir and downstream reaches without fees or charges?</p>	<p>YES = Pass, go to H</p> <p>Yes, all facilities have both access to the reservoir and downstream reaches free of charge.</p>	<p>NO = Fail</p>
<p><b>H. Facilities Recommended for Removal</b></p>	<p>PASS</p>	<p>FAIL</p>

<p>1) Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?</p>	<p>NO = Pass, Facility is Low Impact</p> <p><b>No.</b> The Settlement Agreement does not include any condition relating to dam removal of the subject project in whole or part. The Settlement Agreement states that “no signator to this Settlement has, or is, advocating decommissioning of any development of the Raquette River Projects or any of the project facilities during the term of the new licenses for the Raquette River Projects.”</p>	<p>YES = Fail</p>
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