September 9, 2009

Fred Ayer, Executive Director  
Low Impact Hydropower Institute  
34 Providence Street  
Portland, Maine 04103

RE: RE-CERTIFICATION REVIEW – HOOSIC RIVER PROJECT

Dear Fred,

Attached is my report and recommendation for the requested re-certification of the Hoosic River Project. As we agreed, the format for my report involves utilizing LIHI’s certification review document done for the original certification (in 2004), and then updating the analysis and contact information, presented all in one document. In this way, you and your board can see what has changed and what has remained the same, with all the information contained in one place.

Please be aware that my three voice messages throughout August to NYDEC’s water quality person, Mark Woythal, were never returned, but I do not believe that any information that he might possess would be determinative based on the record I have reviewed and assembled, and my discussion with other contacts.

Please contact me with any questions that you might have.

Sincerely,

Ronald A. Kreisman
Low Impact Hydropower Institute  
Re-Certification Review  

Hoosic River Project  FERC #2616  
Schaghticoke and Johnsonville, New York  

Introduction:  

Application for Re-Certification: filed by letter dated July 8, 2009 by Brookfield Renewable Power Inc. (Brookfield) on behalf of Erie Boulevard Hydropower, L.P., a wholly-owned subsidiary of Brookfield. Brookfield acquired the project from Reliant Energy.

An application for Low Impact Hydro Certification was filed with the Low Impact Hydro Institute (LIHI) in June 2004 by Erie Boulevard Hydropower, LP (Reliant Energy), for its 18.2 MW Hoosic River Hydroelectric Project (FERC No. 2616), in eastern New York State. A copy of the application was posted on the LIHI website July 9, 2004, with a public comment period ending September 9, 2004. No comments were received.

The Hoosic River Project is located in upstate New York northeast of Albany and Troy. The project includes two developments, a dam and generating facility located in Schaghticoke (RM 7.1), and a dam and generating facility at Johnsonville (RM 13.3), which are licensed together as one project. A hydropower facility at Valley Falls (Thompson Project) operated by a different owner is situated in between two Erie-owned projects, and a fourth project (not owned by Erie) is located upstream of Johnsonville in Hoosic Falls. A new FERC license was issued for the Hoosic Project on November 6, 2002. The license was issued following an Offer of Settlement signed in June 2002 by Erie and twelve other parties1, which was filed with FERC on August 16, 2002. The Project was previously owned by the Niagara Mohawk Power Corporation, and was originally licensed in 1969. In 1992, New York State Department of Environmental Conservation (NYSDEC) denied without prejudice Niagara Mohawk’s application for a Section 401 Water Quality Certification. Niagara Mohawk appealed the certification, and settlement negotiations ensued to resolve issues pertaining to issuance of the certification and the new license. The original FERC license expired in 1993 and the project operated under an annual license in the interim period until the settlement negotiations were completed and the new license was issued. FERC issued a draft environmental assessment (EA) in 1996, and following comments by several parties, a final EA was issued on June 30, 2000, noting that the water quality certification appeal was ongoing.

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Re-certification update on project location, site characteristics, and general post-certification licensing history: Subsequent to certification, the Hoosic Project was purchased by Brookfield from Reliant. No revisions or amendments to the settlement, FERC license, or the water quality certification have occurred. A careful review by LIHI of FERC filings and issuances subsequent to certification does not reveal any state or federal-determined violations of license articles, although (1) very occasional exceedances of flow requirements have occurred, and (2) there has been one apparent failure discovered by LIHI in both Brookfield reporting to FERC as required and fully resolving (to date) an upstream eel passage issue at one of the spillways, all as explained in appropriate sections below. Otherwise, compliance seems to be good, with two FERC on-site inspection reports (August 2005 and July 2008) finding no non-compliance or follow-up needed on any issue of concern to LIHI.

LIHI has received no correspondence in the five years since certification from either the licensee or third parties stating that any violations or non-compliance with these documents has occurred.

At the time of license issuance, according to the FERC order, the Schaghticoke Development included a 28 foot high, 700 foot long concrete gravity dam topped with 2.5 foot high wooden flashboards; a reservoir with a 150 acre surface area; a 2,300 foot-long open canal; a forebay; a pipeline intake equipped with 2.5 inch clear-spaced vertical trashracks; an 820 foot-long 12.5 foot diameter steel pipeline; a surge tank; five penstocks; and a powerhouse containing four turbine generators with a total installed capacity of 16,200 kilowatts (kW). The canal, forebay, pipeline and penstocks create a two-mile bypassed reach between the dam and the powerhouse. The bypassed reach is a gorge that drops about 150 feet over two miles.

The Johnsonville Development included a 39 foot high, 529 foot long concrete gravity dam topped with 2.5 foot high wooden flashboards; a reservoir with a 450 acre surface area; a sluice gate; a forebay structure; an intake structure equipped with 2 inch clear-spaced vertical trashracks; a powerhouse containing two turbine generators with a total installed capacity of 2,100 kilowatts (kW). The Johnsonville facility has no bypass reach.

Re-certification update on project structures and operations: No changes have taken place in project structures or operations other than those required by the FERC license and/or settlement (e.g., minimum flows, fishways for eels, etc.). These changes are set forth in the section on “Environmental Context,” below.

Environmental Context

The Hoosic River begins in Massachusetts where it flows northwest past North Adams and Williamstown, MA, then further northwest through the southwest corner of Vermont into New York State. It flows northwest through Hoosick Falls and Buskirk, then west through

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2 The Schaghticoke impoundment includes three connected waterbodies, the main impoundment and two connected ponds: Electric Lake and Fisherman’s Lane Pool, and one unconnected pool. The main impoundment is a long, narrow, slow flowing, riverine habitat. The connected ponds are relatively shallow and heavily vegetated (reportedly with invasive aquatic plants including water chestnut).
Johnsonville and Schaghticoke before emptying into the Hudson River near Stillwater, NY. The Hudson River flows south into Long Island Sound.

The Hoosic River and its tributaries drain an area of 730 square miles, comprised of rural areas of forest and farmland dotted by small villages. The project area rises from the Hudson Valley into the foothills of the Taconic Range, the Green Mountains and the Berkshires. The project is a short drive from Albany, Troy, Schenectady and Saratoga regions, where almost a million people reside within a two hour drive.

The area experiences cold, snowy winters and hot summers. Annual precipitation is about 39 inches. Summertime stream flow is typically near 350 cfs, while spring high flows may exceed 2,500 cfs. Floodplains in the lower river are narrow due to the steeper topography, while the upper project area has broader, flatter floodplains and several wetlands connected to the Johnsonville project.

**General Description of the Hoosic River Project Settlement**

Key issues in the Settlement Agreement include limiting the pond level fluctuations (0.25 ft in summer and 0.5 feet in other months at Johnsonville, and 0.5 feet year-round at Schaghticoke), providing upstream passage structures for American eels and downstream passage and protection measures for American eels and riverine fish, and providing bypass flows and dependable base flows. Pond level control will be improved by installation (now underway) of pneumatic flashboards on a portion of the Schaghticoke dam. Fish protection will be provided to prevent entrainment seasonally by recently constructed 1.5 inch perforated plates overlaying the trashracks.

Also, the settlement includes requirements for maintaining and improving recreation access, and implementing scheduled whitewater releases for boating in the Schaghticoke Gorge bypass reach. The settlement also requires flow and water level monitoring and visible gages.

By limiting pond level fluctuation and requiring instream flows and baseflows, the Settlement Agreement allows the project to operate more efficiently in pulsing mode.

**Re-certification update on key environmental and recreational issues.** Based on discussions with contacts and a review of the post-licensing FERC record, no new key environmental or recreational issues (e.g., new species listed under ESA) have emerged since the Hoosic Project received LIHI certification in 2004. Nor have new or different aspects or problems regarding previously-known key issues been raised (e.g., flows that were provided in settlement agreement were inadequate to resolve habitat or recreation release issues).

**Issues Resulting from the Certification Review**

During interviews conducted by Land & Water Associates, the resource agencies and interested parties expressed a consistently positive attitude toward the Settlement Agreement and new
FERC License, and satisfaction with Erie's implementation of the requirements in the Agreement and FERC. With only a few minor delays for reasonable “real life” issues, Erie has reportedly met the timetables established for completing plans, conducting agency coordination, and construction of facility improvements.

There appear to be no significant issues that conflict with the Settlement Agreement, the FERC License and the Low Impact Criteria.

![Re-certification update on issues resulting from re-certification review.](#) The positive attitude noted above largely continued, although the FERC record contains two critical filings at FERC made by the USFWS: one in December 2006 expressing concern regarding the “potential for future baseflow interruptions” following one that occurred a few days earlier, and one in August 2006 that was critical of Brookfield's refusal to accept certain FWS recommendations in the design of eel passage. In contacting the FWS, it reports that the potential for frequent baseflow interruptions that triggered its December 2006 letter has not materialized. Regarding the design for eel passage, FERC adopted some, but not all of the design elements that the FWS was requesting, and Brookfield is not officially yet in compliance with FERC order on upstream eel passage at Johnsonville spillway. See discussion below.

**Public Comment:**

There were no public comments received outside of the interview process by the reviewer.

![Re-certification update on public comment.](#) No public comments were received outside of the interview process.

**Conclusion:**

Based on our review of project documents filed by the applicant, and available from FERC, and on the interviews conducted with knowledgeable parties, I conclude that this project meets the current criteria for Low Impact Hydropower Certification. I therefore recommend certification.

![Re-certification conclusion and recommendation:](#) Decision on re-certification should be held in abeyance until USFWS has confirmed that upstream eel passage at Johnsonville Project is working as required, and FERC officially has so found. Certification prior to this occurring may appear to reward Brookfield for its less-than-aggressive past efforts to address an issue that was an important part of the settlement, and its failure to make a timely filing with FERC on an important natural resource issue. Once this issue is satisfactorily resolved, re-certification is recommended.

LIHI might suggest to Brookfield that once these actions have occurred (meaning USFWS confirmation and FERC's official finding) that Brookfield send written
documentation showing as much to LIHI, which would be LIHI’s trigger for the re-certification process to re-start and reach conclusion.

Independent Reviewer:

David A. Van Wie
Land & Water Associates, Inc.

Independent Re-Certification Reviewer:

Ronald A. Kreisman, Esq.
Low Impact Certification Criteria:

A. Flows [PASS]

1) Is the Facility in Compliance with Resource Agency Recommendations issued after December 31, 1986 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?

YES = Pass, Go to B
N/A = Go to A2
NO = Fail

Yes. PASS

The relevant resource agency recommendations were provided in the form of the Settlement Agreement and were incorporated into both the state’s 401 Water Quality Certification, dated September 19, 2002, and the FERC Order, dated November 6, 2002. The required flows were implemented as of February 2004 using interim controls (FERC letter dated June 17, 2004), and construction of the pneumatic flashboards at Schaghticoke is currently underway to allow better control of flows and water levels. The pneumatic flashboards are designed to prevent the annual (or more frequent) failure of the wooden flashboards, thus maintaining a consistent pond level. Erie expects to complete by September 2004 the construction of the flashboards, the upstream eel conveyance structure (already in place with associated flows), a permanent “orifice” in the wooden flashboards for downstream fish passage flows (to be included in the bypass minimum flow), and a minor streambed modification to bedrock below the Schaghticoke dam to direct the downstream flow. All required plans were filed and approved by FERC after appropriate consultation with resource agencies (January 15, 2004 FERC Order; May 10, 2004 FERC Order; June 17, 2004 FERC Approval letter).

Minimum flows are as follows: Schaghticoke 60 cfs or inflow in bypass reach
Johnsonville no bypass reach, no required flow

Baseflow requirements below powerhouse: Schaghticoke 220 cfs or inflow
Johnsonville 240 cfs or inflow

Maximum daily reservoir fluctuations: Schaghticoke 0.5 ft yearround
Johnsonville 0.25 ft June 1 to Sept 30
0.5 ft Oct 1 to May 31

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. This plan was approved by FERC Order dated March 8, 2004, and is being implemented.
Annual whitewater releases have been implemented according to the Settlement Agreement and FERC license. During the first ever scheduled whitewater release into the gorge in April 2004, the ramping rates were approved in consultation with NYSDEC.

2) Not applicable

3) Not applicable

Re-certification review regarding flows: no change. Flows have almost always been in compliance. Problems are promptly reported to FERC, appear to occur only very occasionally, are short-term in nature, and appear to be due to circumstances beyond Brookfield’s control. Correction appears to be prompt. No violations of flow regime has been found by FERC. FWS reports that no follow-up to its December 2006 letter to FERC has been required. FWS appears happy with the flows.

B. Water Quality [PASS]

1) Is the Facility either:

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

Yes.

L&W has confirmed, through interviews with NYSDEC, that the Hoosic River Project is in compliance with all conditions contained in the Clean Water Act - Section 401 Water Quality Certification (WQC) issued for the project on September 19, 2002. The Section 401 WQC specifically includes and incorporates the terms of the Settlement Agreement. (Nearly all provisions of the Settlement Agreement are also incorporated specifically into the FERC Licenses with three specific exclusions). Therefore, compliance with the WQC implies compliance with the entire 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. One of the terms included in the Settlement Agreement, but excluded from the FERC license is the Fisherman’s Lane Fishing and Boat Access provision, which has not yet been completed. However, there was no deadline provided in the Settlement Agreement and planning for that project continues.

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 whenever there is any construction at the project that triggers 401 certification conditions. The most recent occurrence was for a drawdown of the reservoir this year to install the trashrack overlays, and for some minor concrete repair work
The streambed modification is expected to be conducted with hand tools in ledge (bedrock), and coordination for planning this project has occurred.

There has been no maintenance dredging, and there is none planned. Provisions in the FERC license require sediment testing and consultation with resource agencies before any planned impoundment drawdowns, disturbance or dredging of sediments.

**Habitat conditions in the project impoundment above the Schaghticoke dam favor an existing infestation of water chestnut, and possibly other invasive aquatic plants. While this issue was not raised by NYSDEC, it was noted that the problem with water chestnut could lead to local water quality degradation, specifically low dissolved oxygen. This issue should be monitored, and appropriate actions taken by the project owner to manage the plant population to prevent localized water quality problems.**

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?**

- **YES** = Go to B2
- **NO** = Fail
- **N/A**

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?**

- **YES** = Go to B3
- **NO** = Pass

**Yes.** Johnsonville Reservoir is on the NYSDEC 2002 303(d) list of waterbodies that fail to attain one or more applicable water quality standards.

3) **If the answer to question B.2 is yes, has there been a determination that the Facility is not a cause of that violation?**

- **YES** = Pass
- **NO** = Fail

**Yes. PASS**

The 2002 NYSDEC 303(d) list indicates that the Hoosic River and the Johnsonville Reservoir are in non-attainment of water quality standards (fish consumption) due to PCB contamination in sediments. The contaminated sediments are widely considered to be legacy pollutants from past industrial discharges into the river upstream of the project, and
the FERC EA indicates that NYSDEC has not attributed this contamination to the Hoosic Project, so we conclude that the Facility is not a cause of the violation.

> **Re-certification review regarding water quality:** no change. Regarding discussion above on Fisherman’s Landing Road Fishing and Boat Access provision, handicap accessible fishing platform has been constructed off Fisherman’s Landing Road, although there is some concern by the town’s mayor -- apparently not communicated to Brookfield -- about its design limitations. Aquatic plants in the lake have depressed fishing activity, an issue that the mayor would like to do something about, but again there has been no communication with Brookfield on this matter according to the mayor. LiHI may want to encourage Brookfield to work with the Village of Schaghticoke on the aquatic plants issue in Electric Lake, and see what happens over the next five years, although there is no record scientific evidence that either the impoundment itself or Brookfield’s project operations are responsible for the aquatic plants. Alternatively, if the Board of LIHI has independent information that this type of invasive plant is existing because of the impoundment and would not be there without it, a condition of certification could be that Brookfield investigate with NYDEC whether environmentally acceptable and economically reasonable techniques are available to address the issue, and if so Brookfield should implement them.

**C. Fish Passage and Protection [PASS]**

1) **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?**

   YES = Go to C5  
   N/A = Go to C2  
   NO = Fail

   Yes.

   The 2002 Settlement Agreement and the subsequent FERC license contain the relevant prescriptions by Resource Agencies for fish passage. The Agreement and the FERC License require the phased installation of seasonal upstream eel conveyance and downstream fish movement systems at both Schaghticoke and Johnsonville. There are no prescriptions for passage of anadromous fish, because the falls below the Schaghticoke dam limit the upstream movement of most fish species (FERC Final EA, June 2000, pg 46). The Resource Agency representatives confirm that Erie is in compliance with the required fish passage provisions. An eel conveyance structure with associated flows is in place at Schaghticoke. Permanent downstream passage provisions are under construction at Schaghticoke and are expected to be completed by September 2004. Similar facilities will be required at Johnsonville by the end of 2006.

   Further, the US Departments of Interior and Commerce have also reserved their authority to prescribe fish passage facilities for the Hoosic Project, and Article 408 of the FERC license
reserves FERC authority to require construction, operation and maintenance of any such prescribed fish passage facilities.

2) Are there historic records of 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 run is extinct)?

YES = Go to C2a
NO = Go to C3

No.

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?

YES = Go to C2b
N/A = Go to C2b
NO = Fail

N/A.

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?

YES = Go to C5
N/A = Go to C3
NO = Fail

YES. The USFWS and NYSDEC participated in the settlement negotiations and supported the requirement that upstream and downstream fish passage for American eels at Johnsonville be delayed until 2006 to allow eels to make use of the facilities at Schaghticoke. Erie is legally bound to implement these measures as a condition of the License (enforceable by FERC) and Settlement Agreement.

3) If, since December 31, 1986:

a) Resource Agencies have had the 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 C2a above), and
b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,

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?

   NO = Go to C5
   N/A = Go to C4
   YES = Fail

   No.

4) Skip.

5) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish?

   YES = Go to C6
   N/A = Go to C6
   NO = Fail

   Yes. The Settlement Agreement and FERC license requirements for downstream fish passage at both developments are intended to provide for both American eels and riverine fish. There are no mandatory prescriptions (section 18 or similar) for the upstream passage of riverine fish. L&WA has confirmed that Erie is in compliance with the fish passage requirements.

6) Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?

   YES = Pass, go to D
   N/A = Pass, go to D
   NO = Fail

   Yes.

   The Settlement Agreement and FERC License require the phased installation of 1.5-inch diameter perforated plates over the existing trash racks at both developments. The plates are installed at Schaghticoke, and are scheduled to be installed at Johnsonville by the end of 2006, according to the Settlement Agreement.
Re-certification review regarding fish passage and protection: The Johnsonville Project is not entirely in compliance with an outstanding FERC order and subsequent required action, although positive actions appear to be occurring. Specifically, in December 2007, Brookfield reported to FERC that it was having “ongoing difficulties with the ram pump feature of the eel ladder” at this project that was installed in 2007, meaning that it was not able to provide the wetting flow that was needed for upstream eel passage, and was experimenting with alternative approaches to providing electricity to the pump. In response, in a January 2008 order, FERC gave Brookfield until October 31, 2008 to submit a final report on this upstream passage flow issue. Brookfield never filed a response. FWS has confirmed to LIHI that there has been a compliance problem, but that Brookfield has now finally come up with a way to provide electricity to the pump using a solar energy system. FWS believes the system is working, but will field verify in September 2009 along with NY DEC.

It is not clear from the record and discussions whether the delay of approximately 1-2 years in solving this problem was necessary or not. Regardless, no compliance report has yet been filed with FERC, and signed off on by resource agencies.

In all other aspects of fish passage that was required by the settlement, no change and full compliance. Further, the FWS reports that there are no new issues that would require additional fish passage beyond what is required by the settlement.

D. Watershed Protection [PASS]

1) Is the Facility in Compliance with Resource Agency Recommendations, or, if none, with license conditions, regarding protection, mitigation or enhancement of lands inundated by the Facility or otherwise occupied by the Facility, and regarding other watershed protection, mitigation and enhancement activities?

YES and N/A= Pass
NO = Fail

Yes.

A key issue in the Settlement Agreement was to limit and better control pond level fluctuations at both projects to control shoreline erosion. The FERC license and WQC also require erosion and sediment control plans for any new construction, maintenance and management facilities on project lands. According to the FERC license, conveyance of land rights to other parties also requires standards and protocols for protection, maintenance and enhancement of surrounding lands. Recent inspections by FERC staff and interviews with resource agency staff confirm that Erie is in compliance with these provisions of the FERC license.
Re-certification review regarding watershed protection: See discussion under Flows criteria above regarding successful limitations and controls on pond level fluctuations.

E. Threatened and Endangered Species Protection [PASS]

1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?

YES = Go to E2
NO = Pass, go to F

No.

The Settlement Agreement, which is signed by NYSDEC, USFWS and other knowledgeable parties, states that:

“Consultation with NYSDEC and the USFWS has established that, except for some transient individuals, there are no federally- or state-listed threatened or endangered species in the area of the Johnsonville or Schaghticoke developments at this time. However, any ground or vegetation disturbance in conjunction with recreational or other mitigation or enhancement effort will conform to an Endangered Species Management plan requiring the licensee to assess the presence of the Karner Blue butterfly or its obligate host species, the Blue Lupine.”

According to NYSDEC and USFWS, bald eagles may occasionally visit or overwinter in the project area. The FERC EA declares that operation of the project and recreational measures would not affect bald eagles. There are no provisions related to the bald eagle in the Settlement Agreement or the FERC license.

Erie was required by the FERC license to complete a survey to determine if the project area contained Karner blue butterflies or their preferred plant species, blue lupine. This survey was conducted in consultation with US Fish and Wildlife Service, who indicated by letter from David Stillwell dated November 14, 2003 that no Karner blue butterflies or blue lupine were found in the project area, and that the project would not likely adversely affect the butterflies. By letter dated February 18, 2004, FERC acknowledged that Erie had met its requirement in the FERC license.

By letter dated, July 15, 2004, NYDEC Natural Heritage Program indicated that its databases contain no records of state threatened or endangered.

2) N/A

3) N/A

4) N/A
5) N/A

Re-certification review regarding threatened and endangered species: no change. No new species have been listed and no new issues have arisen.

F. Cultural Resource Protection [PASS]

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?

Yes.

Erie is complying with the requirement in the FERC License to implement the “Programmatic Agreement” signed in 1996 by Niagara Mohawk (previous project owner), FERC, the Advisory Council on Historic Preservation, and the New York State Historic Preservation Officer (SHPO) for managing historic properties that may be affected by licensing of hydroelectric projects in upstate New York. Erie is preparing a Cultural Resources Management Plan in consultation with the SHPO, and has been granted an extension until October 1, 2004 to file the plan with FERC.

Re-certification review regarding cultural resource protection: no change. No new issues have arisen.

G. Recreation [PASS]

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?

Yes.

Land & Water Associates has confirmed that the recreation facility improvements required in the FERC license have been completed in a timely manner. The required whitewater release study was completed with cooperation of boating interests to select the best flow levels. The
whitewater boating interests were especially happy with the cooperation and support they
have received from Erie, and with the first whitewater release in April 2004.

No agency or party to the settlement we contacted expressed any problems with compliance
with the License or Settlement recreation requirements.

The only recreation facility not completed per the Settlement Agreement (but not included in
the FERC license) is the Fisherman’s Lane Fishing and Boat Access provision, which is still
in the planning stages. No deadline for planning, construction or completion was included
in the Settlement Agreement. Planning for this facility is underway.

- Re-certification review regarding recreation: See discussion above under Water
  Quality re: Fisherman’s Lane Fishing and Boat Access provision. Brookfield has
  complied with all recreation requirements.

H. Facilities Recommended for Removal [PASS]

1) Is there a Resource Agency Recommendation for removal of the dam associated with
the Facility?

NO = Pass
YES = Fail

No. The Settlement Offer does not include any provisions relating to decommissioning or
dam removal of the subject project in whole or part. The Settlement Agreement states that
“no Party to this settlement offer has, or is advocating decommissioning of any of the project
facilities at this time, nor does evidence currently exit which would suggest the need to
advocate for decommissioning during the term of the new license. If and when the subject
project is decommissioned or retired during the term of any new license, the Parties will be
entitled to take such positions on decommissioning issues at that time as they find
appropriate”.

- Re-certification review regarding facilities recommended for removal: No change.
Reports of Contacts

(2009 RE-CONTACT STATUS SHOWN BELOW EACH NAME)

Mark Woythal  
NYSDEC (Albany Office)  
Attempted to recontact; did not respond to 3 voice messages left over a 4 week period

Bruce Carpenter  
NY Rivers United  
Re-contacted, although NY Rivers United no longer in business

Betty Lou Bailey  
Adirondack Mountain Club  
Did not re-contact, as (1) no apparent issues of concern to Club have emerged, and (2) Ms. Bailey passed away, and no known successor contact.

Tom Carlo  
Village of Schaghticoke  
Re-contacted

Steve Patch, Project Biologist  
US Fish and Wildlife Service  
Re-contacted

Andrew Fahlund  
American Rivers  
Re-contacted

William Moxon  
Rensselaer County Conservation Alliance  
Did not attempt to re-contact

David Culligan, Project Manager  
Erie Boulevard Hydropower  
Contacted Tim Lukas, Brookfield’s (current owner’s) designated representative
HOOSIC PROJECT -- Original Certification
Report of Contact

Date of Conversation: July 21, 2004

Person Contacted: David Culligan, Project Manager – Hoosic Project

Affiliation: Erie Boulevard Hydropower, LLC

Telephone Number: 315-413-2792

Reviewer: David Van Wie

Summary of Discussion:

I called Mr. Culligan to introduce myself as the reviewer, and to get some updates and further background on information contained in the application.

**Pneumatic flashboards** - June 21, 2004 letter from FERC authorized construction, so required plans have been submitted and approved. These flashboards will be installed on the “straight” section of the dam, while wooden flashboards will be on the curved section. The pneumatic flashboards are designed to be operated such that they will prevent the annual failure of the wooden boards (failure rate expected to be more like once every 10 years, rather than once or more per year). Also they will allow lake level to be better controlled.

Pneumatic and wooden flashboards are expected to be completed by September, at which time the location of the “streambed” modification will be determined, based on the location of the opening (orifice) where the 60 cfs will be passed. Some handwork cutting of the bedrock ledge below the dam will be completed to direct the flows as necessary.

**Eel conveyance** - The upstream eel conveyance is in place. It is similar to a “cable tray” with an astro-turf-like product along the bottom, with a small flow.

**Trashrack Overlay Plate** – has been in place since April or May. Installation was done in consultation with NYSDEC.

**Water level monitoring plan** was filed and should be available on the FERC elibrary site.

**Recreational enhancements** – Had a recent FERC safety and environmental inspection, that reviewed the required projects. Access points are completed.

The only remaining item in the agreement is the fishing access at Fisherman’s Lane. They are still working with the Town of Schagticoke on an agreement for location and layout. They expect to have it done this summer. Contact at town is Tom Carlo.
Whitewater studies and releases – The study was completed in 2003. It looked at different flows in the various reaches to determine what best flows would be for boating.

First release was April 21, and it went “extremely well”. Duration was from 4 to 7 pm with ramp up and ramp down as approved by resource agencies. 45 people signed in, and “can’t wait to do it again next year”. Report filed with FERC May 10, 2004 describing how things went. Beyond scheduled releases, boaters may use the area when there is spillage anticipated.

Cultural Resources – 1996 Programmatic Agreement required Erie to develop an approved plan within certain time frame. A draft is in hand and they have requested an extension of time from FERC to get SHPO review.

ESA Plan - Erie was awaiting some updated information from NYSDEC regarding occurrence of threatened or endangered species, as the letters in application were dated. Erie received letter July 15 stating that no ESA issues are known for the projects, but this does not mean that no issues exist due to limitations of field records. David Culligan will send a copy of letter to me and to Fred Ayer.

Dredging/WQ - Water quality language in 401 certification and FERC order are “boilerplate”. No dredging has occurred and none is planned at this time. Erie doesn’t consider the “streambed modification” requirement to be dredging, as it is a very small amount of hand work in bedrock. NYSDEC is reviewing the plans and will oversee the work. (Mark Woythal)

Follow Up Call – 7/25/04:

Property easements, transfers, etc. - David said there are no major issues with property transfers, easements, or use. A stormwater drain easement was handled routinely, and others like it will be handled on a case by case basis. He didn’t see the need for formal procedures at this time. There are no major projects (marinas, seawalls, etc.) that would require this issue to be elevated. This was confirmed by Tom Carlo.

I asked about the Johnsonville boat ramp (per Betty Lou Bailey’s comment that it wasn’t in place in April). He said it was completed shortly after that, and the FERC report indicates as much.

The drawdown for the trashrack overlay installation was done with NYSDEC oversight. Ramping rates were determined in advance with NYSDEC who was closely involved in the project. There have been no other significant disturbances of sediment, and none are planned.
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<td>Application Reviewer:</td>
<td>Ron Kreisman</td>
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<tr>
<td>Person Contacted:</td>
<td>Timothy Lukas,</td>
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<td>Compliance Specialist</td>
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<td>Brookfield Renewable Power, L.P.</td>
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<td>Hudson Region Production Center</td>
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<td></td>
<td>email: <a href="mailto:timothy.lukas@brookfieldpower.com">timothy.lukas@brookfieldpower.com</a></td>
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My contacts with Tim, to gain answers to certain questions that I had, were via emails. Below I have included the substantive portion of the relevant email in which Tim answers the questions that I posed to him.

****

**From:** Ronald Kreisman [mailto:kreisman@gwi.net]
**Sent:** Wednesday, August 05, 2009 3:59 PM
**To:** Lukas, Timothy
**Subject:** LIHI information requests for Hoosic Project

Dear Tim:

I am writing regarding Brookfield’s requested re-certification for the Hoosic River project. I am conducting the data gathering and review for Fred and LIHI. I don’t believe our “hydro paths” ever crossed when you and Fred were working together from Maine, but I may be wrong.

At this point, although I have reviewed a series of documents related to Hoosic (including the FERC license, the settlement agreement, the internal analysis prepared by LIHI prior to the original certification, as well as FERC’s docket since 2004), I have not yet had updated discussions with USFWS, NYDEC, etc. about the project since it was certified in 2004. I wanted to check in with you to ask you to answer a few quick questions set forth below and, of course, provide you the opportunity to add anything to your July 8th letter, although I am not suggesting anything is needed. Filling in the information requested next to the question in a reply email is fine. If it is easier, don’t hesitate to call me.

Also, should an issue of significance emerge from my discussions with third parties, I will contact you so we can discuss further.

**QUICK QUESTIONS:**
1. Impoundment, minimum and bypass flows:

   A. I noted on the FERC site that you reported occasional, short-term variations from the fluctuation limits. My review of corresponding FERC letters was that FERC has never found there to be a violation of license terms from these occasional variations. Is that correct?

   That is correct Ron. Our policy is to report any deviation from required flow or pond levels to both NYSDEC and FERC. Mark Woythall (NYSDEC) and also the appropriate NYSDEC Regional Permit Administrator are actually contacted via telephone by our Control Center as soon as they identify any deviation. We then follow up with a notification letter to FERC, along with an "Excursion Report" providing the details of the event (date, time, duration, magnitude, cause, corrective measures, etc.). To date, FERC has provided a response to each such event providing "the finding" of their review and indicating that "the incident will not be considered a violation". These are probably all posted to the docket (I did not actually check back five years), but let me know if you'd like to see what these generally look like and I can send you a pdf of both our report and FERC's response to the most recent such event (i.e., a Schaghticoke pond level deviation on Jan. 16, 2009, with FERC response dated May 27) or others as you wish.

   B. I noted one letter of concern on the absence of sufficient baseflow on a particular occasion, from USFWS (December 20, 2006). Was anything ever done to address their concern/implement their requested changes, and have there been ongoing discussions? If so, with whom?

   The noted base flow deviation and associated correspondence occurred before I was employed by the company Ron, so I don't have any first-hand knowledge of any follow-up discussions that Ken Kemp or others may or may not have had with the Service (Ken was the compliance guy before me, and was the recipient/addressee for the Dec. 20, 2006 letter). I do not find anything in our files indicating any further written exchanges on this, either internally or with agencies. So, the simple answer to your question would seem to be that no, there have not been any follow-up discussions with the Service, but I have called and sent an email to Ken Kemp (he is no longer with Brookfield, but I can contact him at his new job in Liverpool) and will let you know if he has additional information on this.

   However, I did speak with our Water Resource Manager, Brian Dugan (the guy who helps to determine how we will operate the individual plants on a day to day basis and who knows exactly what kind of control capabilities we have and don't have at each). Brian said that he recalls some discussion "a while back" (December of 2006 ?) on what capabilities we might have to coordinate a response by the pneumatic flashboard section at the Schaghticoke Dam (i.e., a "rubber dam" is in place along a portion of the dam crest) in the event of a full plant trip (i.e., any/all operating Units at the plant shutdown, as in the case of a transmission grid "trip", hence preventing any discharge at the plant). He explained that since there is no capability to automatically communicate information between the plant and the dam, this kind of triggered auto-response is not technically possible. We also don't have the ability to remotely operate the rubber dam or the flood gates from the control center (i.e., to deflate the rubber dam or open a gate in the event of a plant trip), so that type of immediate response by the 24/7 operators at the control center is also not possible. They do however, immediately contact and dispatch an
operator to the plant in the event of a plant trip or any other indication of unusual water levels, flows and/or discharge conditions, who can generally arrive on-site within 20-40 minutes.

Another consideration regarding this issue is that even in the event of a full plant trip that prevents discharge of that portion of the required baseflow that was being discharged at the plant itself (i.e., ≥ the required 240 cfs, minus the 60+ cfs minimum flow at the dam), there is still a continuous flow in the river of at least 60 cfs (provided through a notch in the wooden section of flashboards and designed to pass the 60 cfs even when the pond is at the minus-0.5 foot lower limit, so slightly more than 60 cfs is being passed most of the time). While obviously less than the desired total base flow at the powerhouse of 240 cfs, this does maintain at least a moderate amount of water flow and movement through this reach and maintains a wetted channel. This serves to mitigate any potential effects to aquatic habitat and biota that might occur during these very infrequent events and the 20-40 minutes it may take for an on-call operator to respond to a plant trip and place one or more units back in service.

2. Eel passage:

   A. On January 28, 2009, FERC issued an Order Acknowledging Interim Report on Eel Passage and Granting Extension of Time, in which it responded to your reported “ongoing difficulties with the ram pump feature of the eel ladder” which was resulting in problems with continuous flow. FERC provided you until October 31, 2008 to submit a final report on flows, but I couldn’t find this report, or any follow-up thereon, on FERC’s site. Could you forward a copy of that to me?

   We were unable to schedule a site visit with the agencies at the end of last summer after getting the solar-powered pump system for the eel ladder at Johnsonville fully operational before the eel ladders are removed (per the required periods of operation and to prevent ice or other damage during the winter months and spring runoff). We are now looking to nail down an available date for the USFWS (Steve Patch and Curt Orvis) and NYSDEC (M. Woythall) to conduct this site visit and evaluation. I do know from recent email exchanges with Curt that he has already visited the Johnsonville facility and observed the eel ladder in operation, so he can probably provide you with some initial thoughts on it if you wish to contact him on this. He actually provided Mark, Steve and myself with some photos of the ladder setup, a couple of which I've attached to this email for your perusal. The solar powered pump mechanism is actually pretty cool (the same setup is also now in use at Schaghticoke as well). I can forward the results/report of the upcoming evaluation to you (or Fred) if you think that would be useful or otherwise needed to address this item.

   B. On August 15, 2006, the USFWS wrote to FERC, objecting to certain portions of the proposed eel passage at Johnsonville. FERC made some changes. Have there been subsequent discussions and any accommodation reached with the Service? Also, I understand that the Settlement Agreement does not require Brookfield to conduct any effectiveness testing of the upstream and downstream passage. Do you have any information (anecdotal or otherwise) as to whether safe and effective passage of eel is occurring?
As the August 15, 2006 correspondence indicated, the proposed "Final" plans for the eel ladder did address many of the recommendations provided by the Service in their earlier comments (under a June 20, 2006 letter) on a draft plan. Remaining items concerned:

1) recommendations for a counter to monitor eel usage, which they indicated was for purposes of contributing to the knowledge base concerning American eel populations and was unrelated to testing the effectiveness of the eel ladder (as was specifically addressed in the Settlement Agreement),

2) use of an alternative media in addition to previous recommendations for the use of Enkamat, and

3) for the eel ladder to be enclosed with a cover.

The eel ladder was constructed using both the Enkamat and other media, and also has a hinged cover (see attached photos). There are no provisions for a "counter", and I am not aware of any anecdotal or other information related to usage of the installed ladder.

3. Rec resources -- Fisherman’s Landing fishing and boat access?

Has this project been constructed?

Yes, a handicap accessible fishing platform was constructed off of Fisherman's Landing Road, providing a public fishing access into the Schaghticoke impoundment. We may have "somewhere", but I could certainly obtain, some photos of the fishing platform if you'd like.

4. Contacts --

Do you have an updated contact for Adirondack Mountain Club, anyone you are dealing with on whitewater release/boating issues?

I do not have a contact for the ADK following Betty Lou Bailey's passing away back in 2008 (she was apparently the contact for ADK throughout the Hoosic (and other) relicensing and settlement process, and I met her once at a non-Brookfield project licensing meeting on the Hudson we were following. Not sure who has picked up her ADK advocacy role in this regard). We have not had much in the way of any ongoing consultation or other communications with the ADK concerning the Hoosic or any of our other projects since I've been on board (since Sept. 2009). I guess you could start by contacting the Executive Director, Neil Woodworth, via the general ADK contact address: info@adk.org?

With regards to the annual, one-day whitewater release at Schaghticoke, I coordinated/publicized this through American Whitewater in 2008 (they posted notification and some related river and directions info. on their website). Participation has been very limited, and has varied from zero to maybe 7/8 participants over past few years. River flows did not allow for the release earlier this year (we need at least 1,000 - 1,100 cfs, but no more than 3,000 cfs), and we are continuing to look for the next opportunity this year when flows will allow for a Saturday WW release right up through September.

Well, hope you've got what you need ! Thanks Ron.
Thanks, Tim.
Report of Contact -- Original Certification

Date of Conversation:    July 22, 2004

Person Contacted:        Betty Lou Bailey

Affiliation:             Adirondack Mountain Club

Telephone Number:        518-355-0604

Reviewer:               David Van Wie

Summary of Discussion:

A retired engineer, Ms. Bailey is an active paddler and is familiar with the whitewater studies, the first public release, and other recreation related projects on the Hoosic. She had no major concerns about the project.

She witnessed the whitewater studies last year, and participated in the April 21 release, paddling the lower part. She noted that an RPI student has set up a website regarding the April release.

She is generally satisfied with how Erie has followed through after issuance of the license. She said that Dave Culligan likes to get things done, and is quite diligent in implementing the settlement offer.

She said “it took 10 to 12 years, and we are still finalizing access issues.” The company did not want to wrap up all the details before the license was issued, so there are still things being worked out. When she was there in April or May, the portage site at Johnsonville was not in. But with this being construction season, she expects it is likely in as noted by Erie.

She said the project is expected to be sold again… to Brascan, so not sure how responsive they will be.
Report of Contact -- Original Certification

Date of Conversation: July 29, 2004

Person Contacted: Mark Woythal

Affiliation: NYSDEC

Telephone Number: 518-402-8847

Reviewer: David Van Wie

Summary of Discussion:

Erie has been cooperative since the license has been issued. Things seem to be moving forward quite well at the Hoosic Project. Pneumatic flashboards are well in process. They are in compliance with the 401 Water Quality Certification.

Erie had to do some concrete rehabilitation work on the footings of a bridge below the dam. They received necessary approvals, ramped the flow down, and sandbagged the area to complete the work quickly. No impacts, and everything was done cooperatively and according to license and WQC standards.

Bypass channel flow modification - Next is the modification of the ledge below the dam, after the flashboards are up. This will likely be handwork in bedrock, so no disturbance of sediments will take place. Erie is in close contact with NYSDEC and they expect this to go smoothly.

Trash-rack overlay screen - in the drawdown, the biggest concern was stranding fish in small ponds created during low flow, but they ramped the flow down slowly and only had to assist two or three fish into the channel, with insignificant disturbance of sediment.

Eel passage - A remaining question is what number of eels will be passed, and what is appropriate for the watershed ecosystem, relative to what populations might have occurred prior to dam construction. The US FWS prescribed eel passage, and NYSDEC did not object, but there was some concern about whether passing eels upstream in large numbers will help the ecosystem, and whether passing eels and then exposing them to possible entrainment would be a net benefit to the eel population. NYSDEC does not expect there to be large numbers of eels, so they don’t believe this will be a major issue. It was noted that a characteristic of the settlement agreement process is that not all issues get fully resolved, but the parties may agree that the package is acceptable and expedient, even if not every issue is optimal.

All in all, Mark feels the Schaghticoke and Johnsonville projects are on track with the requirements, that the environmental issues in the LIHI criteria were reasonably resolved. He has no concerns that the project is inconsistent with the LIHI criteria.

Report of Contact -- 2009 Re-Certification
Date of Conversation: Three attempts made and voice messages left by reviewer in August, 2009. No return call-backs from Mr. Woythal.
Report of Contact -- Original Certification

Date of Conversation:    July 29, 2004
Person Contacted:        Andrew Fahlund
Affiliation:             American Rivers
Telephone Number:        202-347-9230  ext 3022
Reviewer:               David Van Wie

Summary of Discussion:

Andrew noted right away that he is on the Board of the Low Impact Hydropower Institute, so he did not want to create any appearance of conflict in his roles. He said Bruce Carpenter did most of the negotiating on the Hoosic and Raquette projects, and if familiar with the issues on those rivers.

I asked if he could identify any general issues, without specific comment or opinion of his own, which I should delve into, simply as a matter of priority or interest. He said that he knew of no issues of concern on the Hoosic Project, but that he was not as familiar with the Hoosic as the Raquette.

______________________________________________________________________________

Report of Contact -- 2009 Re-Certification

Date of Conversation:    August 18 , 2009
Application Reviewer:   Ron Kreisman
Person Contacted:        Andrew Fahlund
                        Vice President, American Rivers
                        1101 14th Street
                        Suite 1400
                        Washington, DC  20005
                        202-347-9230

I contacted Andrew by email to confirm that he no longer had any involvement in this project although AR was a signatory on the settlement (he confirmed) and to ask him whether I should still contact Bruce Carpenter, which is what he suggested five years ago during the original certification due diligence. He stated that New York Rivers United was no longer in business, but gave me Bruce’s cell phone number and also suggested that I email John Seebach. John stated by email that if Bruce was no longer available or familiar, he had some other names of people who I might be able to contact.
Report of Contact -- Original Certification

Date of Conversation: July 25, 2004
Person Contacted: Tom Carlo
Affiliation: Village of Schaghticoke
Telephone Number: 518-753-6100
Reviewer: David Van Wie

Summary of Discussion:

Tom said that the town had received a letter saying that Erie was working on the air bladders (pneumatic flashboards). He had no issues regarding the project. He was not sure what the plans were for the Fisherman’s Lane project. He noted that in Electric Lake there is a major problem with invasive aquatic plants (water chestnut), and they wished something could be done. The town wants to put a boat launch in, but the plants are a problem. He didn’t view this as Erie’s issue, but just a general issue for many ponds.

Report of Contact -- 2009 Re-Certification

Date of Conversation: 9/8/09
Application Reviewer: Ron Kreisman

Person Contacted: Tom Carlo
Mayor, Village of Schaghticoke
518-753-6100

I spoke with Tom to double check on Brookfield’s representation that a boat launch was put in. Tom did confirm this, although he had “issues” with the way it was designed and had suggestions on changes to it that he would like to see. Tom also said that its use was minimal because of the aquatic plant situation. I asked him whether he had communicated with Brookfield on either of these issues, and he said that he had not and did not know whom to contact. I provided him with Tim Lukas’s contact information and encouraged him to call Brookfield, which he said he would do.
Report of Contact -- Original Certification

Date of Conversation:    July 30, 2004

Person Contacted:       Bruce Carpenter

Affiliation:            New York Rivers United

Telephone Number:       315-339-2097

Reviewer:              David Van Wie

Summary of Discussion:

Bruce has no issues with the project, or the settlement agreement. He said that Erie has been very cooperative, and timely in completing obligations. Bruce has some wariness about the implications of so many transfers of the licenses, that as people less familiar with the settlement process are involved, there is more uncertainty. But he said the local operators are very knowledgeable and helpful.

He said the settlement was a good outcome for environmental issues, and it allows for adjustments as time goes on. He noted that balancing interests, even among the resource agencies, can be a challenge. Fish passage was a concern, and it appeared that the State had priorities related to game fish while US FWS and others were more focused on non-game and emerging concerns about the fitness of the American eel population. As the eel returns are monitored, this issue can be revisited.

Report of Contact -- 2009 Re-Certification

Date of Conversation:    September 3, 2009

Application Reviewer:   Ron Kreisman

Person Contacted:       Bruce Carpenter
                        Former Exec. Dir., NY Rivers United
                        Phone: 315-271-9073

Bruce stated that his information was not current because NY Rivers United no longer exists, as of approximately one year ago. He said he hasn't heard about any major issues or "blow ups", although he also said that the absence of a rivers advocacy organization in New York state means that there is no "eyes and ears" that is collecting information. Bruce noted that most of the implementation required by the license and the settlement was done early on, particularly the change in flow regimes, which he believes was the really important part of the settlement.
Regarding the success of the eel passage provided, Bruce stated that there is no monitoring data of which he is aware.

Report of Contact -- Original Certification

Date of Conversation: July 30, 2004
Person Contacted: Steve Patch
Affiliation: US Fish & Wildlife Service, Cortland, NY
Telephone Number: 607-753-9334
Reviewer: David Van Wie

Summary of Discussion:

Steve has no concerns about the implementation of the FERC license and settlement agreement at the Hoosic. Erie is doing things pretty well on time, and very much consistent with agreements. He feels they built in sufficient provisions to allow resource agencies to monitor and assess progress with fish passage and other issues, and if necessary, to seek modifications through the Settlement Agreement process.

Report of Contact -- 2009 Re-Certification

Date of Conversation: August 14, 2009
Application Reviewer: Ron Kreisman
Person Contacted: Steve Patch
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045
607-753-9334

Steve is USFWS person with principal responsibility for Hoosic. We spoke for about 15 minutes about what has happened in the last 5 years. Steve was highly involved in settlement for FWS. He said that Brookfield is good to work with, although he wonders
what will happen as Brookfield regionalizes its operations and moves people to Massachusetts.

**FLOWS:** Stated that generally Brookfield has timely implemented flows required in settlement, and does well at regulating impoundment and base flows. Have been instances of not meeting requirements in impoundments, but few and far between and based on short-term electrical trips, which are attended to promptly. I asked him about December 2006 letter to FERC that his office filed (with him as contact person) expressing concern that December involving interruption of Brookfield’s base flow at Schaghticoke, and risk of fisheries harms from further base flow interruptions, and stating that Brookfield should “explore the feasibility of installing an automatic release mechanism that ensures that during similar events in the future that the baseflows will be instantaneously released and maintained until the problem can be corrected.” I asked him what happened after this correspondence, and Steve could not remember the letter or any subsequent actions as a result until I read him the text. He says that there have not been subsequent similar issues of concern.

**OTHER WATER QUALITY ISSUES:** None.

**FISH PASSAGE:** No anadromous passage required per issued licenses and settlement. For catadromous (eel), confirmed that all eel passage has been installed and is fully functional at Schaghticoke. For Johnsonville, I asked if there has been an ongoing issue in terms of getting electricity to operate a pump to provide watering for upstream passage, referring him to a January 28, 2008 FERC Order in which Brookfield was given more time to address “ongoing difficulties with the ram pump feature of the eel ladder” and FERC gave Brookfield until October 31, 2008 to submit a final report on flows. I stated that I couldn’t find any subsequent response from Brookfield. He confirmed no written response, that there has been a compliance problem, but that Brookfield had finally come up with a way to provide electricity to the pump using a solar system. Thinks it is working well, but hoping to check it out personally in September and that I could contact him after he has seen it.

Steve emphasized that he was comfortable with no effectiveness testing based on not only the studies on the St. Lawrence, but that he does not believe the Hoosic is “a major eel river.”

**ESA:** No issues raised by Steve.
Report of Contact -- Original Certification

Date of Conversation:  August 4, 2004

Person Contacted:  Bill Moxon

Affiliation:  Rensselaer County Conservation Alliance (RCCA)

Telephone Number:  315-339-2097

Reviewer:  David Van Wie

Summary of Discussion:

Bill had no issues or concerns. He had heard things were going smoothly and that his affiliate organizations had no complaints.