

# Land & Water Associates

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*R. Alec Giffen  
Kathy Eickenberg*

June 13, 2003

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

Dear Fred,

Attached is Land & Water Associates' completed review of the Beaver River Project, located on the Beaver River in New York. I have determined that the Project meets the Low Impact Hydropower Institute (LIHI) certification criteria, provided a lands transaction called for in the Settlement is completed. After an extended period of negotiations, dating back to 1998, it appears both the State DEC and Reliant Energy are actively working to resolve any remaining issues. It is my understanding that there is a deed correction that needs to be executed by Niagara Mohawk for an error in the deeds transferring lands from Niagara Mohawk to Reliant, and that the DEC Real Estate division has to have the land management program staff review and accept the location of the access easement tentatively determined during the June 16<sup>th</sup> site visit. My understanding is that the deal may be ready for final review by the NYS Attorney General's Office by the end of the summer.

Consequently, I recommend that certification of the Project be made contingent upon completion of the land transfers and easement provisions of the Settlement Agreement.

I will be happy to answer any questions on this or other issues via telephone during the Board's meeting.

Sincerely,

Kathy Eickenberg

cc. Gabriela Goldfarb

**Low Impact Hydropower Institute  
Certification Review  
Beaver River Project  
Beaver River, New York**

**Introduction:**

An application for Low Impact Hydro Certification was filed with the Low Impact Hydro Institute (LIHI) in March of 2003 by Erie Boulevard Hydropower, LP (Reliant Energy), for its Beaver River Hydroelectric Project (FERC No. 2645), in New York State. A copy of the application was posted on the LIHI website March 20, 2003, with a public comment period ending May 19, 2003. No comments were received.

The Beaver River Project is located in upstate New York northeast of Syracuse. The Beaver River is a tributary to the Black River, which flows into Lake Ontario. The Project was previously owned by the Niagara Mohawk Power Corporation.

The Beaver River Project consists of eight developments licensed together as one project. The developments were constructed between 1898 and 1930. The Project has an installed capacity of 44.8 megawatts, and produces an average annual generation of 197,285 megawatt-hours. The eight developments, operated in a peaking mode (water is stored and released in accordance with energy needs, subject to restrictions for environmental protection), consist of the following.

Development	River Mile (Approximate)	Installed Capacity (kW)	Dam Height and Type	Reservoir Surface Area (Acres)	Bypass Length <sup>1</sup>
Moshier	29	8,000	93 ft. earthen	340	11,700
Eagle	23	6,050	21 ft. concrete	138	3,850
Soft Maple	20	15,000	115 ft. earthen	400	8,340
Effley	16	2,960	30 ft. concrete	340	<500
Elmer	15	1,500	23 ft. concrete	34	<500
Taylorville	14	4,772	23 ft. concrete	170	~3850
Belfort	13	2,040	17 ft. concrete	50	~1300
High Falls	11	4,800	50 ft. concrete	145	~1500

<sup>1</sup> The FERC EA includes data on bypass reach lengths only for the Moshier, Eagle, and Soft Maple developments; lengths for the other developments were scaled from maps in the EA.

The project was relicensed by the Federal Energy Regulatory Commission (FERC) in 1996 based on a comprehensive settlement agreement negotiated by the (then) project owner Niagara Mohawk, state and federal resource agencies, and environmental organizations. Resource agencies signing the settlement include the U.S. Fish and Wildlife Service, the New York State Department of Environmental Conservation, the New York State Conservation Council, and the Adirondack Park Agency. Environmental organizations that participated and signed the settlement agreement include American Rivers, New York Rivers United, American Whitewater, National Audubon Society, Trout Unlimited New York State Council, Adirondack Mountain

Club, American Canoe Association, the Adirondack Council, and the Association for the Protection of the Adirondacks.

## **Environmental Context**

The Beaver River is a principal tributary of the Black River. The Black River and its tributaries are used extensively for hydroelectric generation. There are 39 hydro facilities in the Black River drainage; 11 are on the Beaver River, which include Reliant's eight developments, the Stillwater Project above the Reliant Beaver River developments, and two run-of-river projects below the Reliant developments. The Stillwater Project, which includes a 6,200 acre reservoir, is not licensed by FERC (it is exempted) as it is operated primarily for flood control and low flow augmentation, with hydropower incidental to those functions. It is operated by the Hudson River Black River Regulating District. Nevertheless, hydropower operations along the Beaver River and lower Black River are strongly affected by the Stillwater Project.

The Beaver River, with a drainage of 338 square miles, is 51 miles long. It lies in the foothills of the Adirondack Mountains, in an area once characterized by numerous waterfalls, supporting wild brook trout. Today, the great majority of the River's length is impounded. The area above the Beaver River Project is dominated by the Stillwater Reservoir and two other naturally occurring lakes. The Beaver River Project impounds or bypasses most of the river below the Stillwater Reservoir (only two of the developments discharge into the Beaver River; the other six discharge into the impoundments of the next project downstream).

The surrounding region is rural or largely undeveloped. Moshier, Eagle, and most of the Soft Maple facility are within the Adirondack Park boundary. The land that lies north of the Beaver River from the Moshier powerhouse to Stillwater dam is almost entirely state owned and classified by the Adirondack Park Agency as "wilderness area."

## **General Description of the Beaver River Project Settlement**

The Settlement continues the operation of all eight developments as storage and release generation facilities; however, the allowable fluctuation of the reservoirs is significantly reduced. For example, the FERC EA states that the allowable drawdown at the Moshier development before the Settlement was 24 feet. The Settlement limits it to a maximum of 3 feet from the top of the flashboards (4.5 feet if the flashboards fail). The Settlement included minimum flows in the bypass reaches ranging from 20 to 65 cfs. It also included improvements to the dams for downstream fish passage and new or improved trashracks to protect fish from impingement at the dams.

Recreational measures included establishment of whitewater boating flows at three of the bypass reaches (a total of 11 release events scheduled in September or October); a number of recreational facility enhancements which sought to maintain the primitive setting and wilderness-like values of the project, while facilitating use of the river for flatwater canoe trips through improved portages and additional primitive camping sites; an ADA trail and fishing deck; and improved fishing access and parking.

The Settlement also included a Protection, Mitigation and Enhancement Fund which over the 30 year license will amount to \$590,000, to be used for a broad array of purposes. The Fund includes \$80,000 for the purchase of lands and conservation easements from Niagara Mohawk (now Reliant Energy), including easements on a 25-foot buffer around the Moshier development (which abuts state land) and fee acquisition (by NYSDEC) of lands at Eagle Canyon (the Eagle development) to be available for rock climbing.

### Issues Resulting from the Certification Review

Minimum Flows in the Bypass Reaches: At least one party interviewed had expressed the view that the flows were too low, and that the terms of a settlement agreement would not necessarily ensure low impact. Although the project meets the present criteria for certification, we followed up on the comment for the Board's information and consideration regarding future certification requirements. We compared the present minimum flows to the USFWS standard ABF flows used in New England. See table below. We also considered what was in the record as justification for the minimum flows.

Development	Bypass Length <sup>1</sup> feet	SA Minimum Flows cfs	ABF Flows (.5 cfs/mi <sup>2</sup> )	Min. Flows cfs Dec 5, 1991 FERC Order
Moshier	11,700	30	91	30
Eagle	3,850	45	112	30
Soft Maple	8,340	35	120	20
Effley	<500	20	124	0
Elmer	<500	20	125	0
Taylorville	~3850	60	125	30
Belfort	~1300	20	125	0
High Falls	~1500	30	133	0

The FERC EA (issued in 1996) indicates that the flows established by a Dec 5, 1991 Commission order (as interim flows pending a new license order) were based on an instream flow incremental methodology (IFIM) study. It does not indicate why the Commission decided to order minimum flows on only four bypasses in the Dec 1991 FERC Order. The EA further states that lower flows are better in this river as acidity levels go up with higher proportions of the flows coming from the reservoirs as opposed to tributary drainage or baseflow (no data or studies are cited to support this).

The recent 303(d) report on water quality limited water bodies registered high pH values for many lakes and ponds in the upper Beaver River drainage, including Upper and Lower Moshier reservoirs, Sunday Creek (a tributary flowing into Beaver Lake downstream of the Moshier development), and the Soft Maple reservoir. Whether there was adequate analysis or basis for the flows is not clear; however, that is not the question for this review. Rather, the question is whether the project is in compliance with the flows established in the FERC License and Settlement Agreement (which it appears it is); and whether any resource agency has formally filed to amend the settlement and license (which they have not).

Timeliness of Compliance with the Land Transfer Agreement: As indicated in the following report, one item that was part of the Settlement Agreement, but not the License, has yet to be executed – the transfer of lands and easements at the Moshier and Eagle developments to the NYSDEC. The issues associated with this are detailed in the report. Overall, it appears that both the NYSDEC and the project owners (Niagara Mohawk and subsequently Reliant Energy) share responsibility for the delay. However, it appears that the issue is now a priority for both sides to resolve. At the request of the NYDEC, I am recommending that certification of the Moshier and Eagle projects be made contingent upon the implementation of the land transfer.

Documentation of Compliance: One of the difficult issues for this review was providing documentation that supports the conclusion that the project is in compliance with the terms of the FERC License and Settlement Agreement. The Applicant provided only two letters from resource agencies, addressing the narrow issue of presence of Threatened and Endangered species. There were no other letters from resource agencies supporting the Applicant's assertion of compliance. Certification procedures encourage but do not require such letters, and ultimately it is the reviewer's responsibility to contact agency representatives to ascertain compliance. However, since the project was settled over six years ago, in some cases personnel involved in the case are no longer available, having retired or moved on. Further, state and federal agencies are stretched thin with limited resources and increasing workloads. When contacted, some have a limited interest in spending time refreshing their memories on the project; particularly if the case files are archived or in disarray. What is more, monitoring of a project that was completed with a Settlement is not a priority for these agencies, and unless there is an egregious compliance issue, little attention is paid to them. The avenue of tracking down compliance issues through the FERC record should help to overcome these difficulties; however, since "September 11," many documents are available only through filing a FOIA request, including the annual operation report submitted to the Commission by the New York Regional Office, and FERC inspection reports. One potential solution is for the LIHI to require that the applicant submit any compliance reports it has had to file with FERC over the year preceding the application.

### **Conclusion:**

This project meets the current criteria for Low Impact Hydropower Certification with the possible exception of the Moshier and Eagle developments due to failure to execute the land transfer required by the Settlement Agreement. However, no schedule for implementation was included in the Settlement. Nevertheless, it has become a source of frustration for the settlement parties, and there is general agreement that this matter could have been resolved if it had been a priority for Reliant. Hence we recommend conditioning certification of the Moshier and Eagle developments upon completion of this Settlement provision.

## 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.** The Beaver River Project is in compliance with resource agency terms negotiated and included in the 1995 Settlement Agreement and subsequently incorporated into the FERC License issued August 2, 1996 and amended January 16, 1998. The settlement agreement includes requirements for flow releases recommended by the New York State Department of Environmental Conservation (NYSDEC) and the U.S Fish and Wildlife Service (USFWS). L&WA has confirmed that the project has been operated to the satisfaction of the resource agencies and in compliance with the Settlement and License terms described below through interviews with the USFWS and NYSDEC (see attached Reports of Contacts). L&WA has also checked the online FERC record and found that since Reliant (Erie Boulevard Hydropower, LP) assumed ownership of the project, it has reported six episodes of minimum flows or reservoir fluctuations that did not meet the requirements of the license (on 11/23/99, 11/30/99, 01/31/00; 06/17-19/00; 6/20-21/00; and 02/10/01), and that in each case FERC found that the variations did not constitute a violation of the license.

The conditions in the License are summarized below:

**Minimum flows in the bypassed reaches** are specified at each development as follows:

Moshier:	30 cfs
Eagle:	45 cfs
Soft Maple:	35 cfs
Effley:	20 cfs
Elmer:	20 cfs
Taylorville:	60 cfs
Belfort:	20 cfs

High Falls: 30 cfs

The method of release and time of implementation are also established in the settlement as recommended by the resource agencies and others.

Year-round base flows of 250 cfs are provided at High Falls. Under low-flow conditions, Reliant must take additional steps to maintain the base flow to the extent feasible.

**Maximum daily reservoir fluctuations** under normal flow conditions are limited as follows:

Moshier: 1.5 feet from July 1 to April 30,  
1 foot from May 1 to June 30.

Eagle: 1 foot.

Soft Maple: 1.5 feet from July 1 to April 30,  
1 foot from May 1 to June 30.

Effley: 1.5 feet from July 1 to April 30,  
1 foot from May 1 to June 30.

Elmer: 1 foot.

Taylorville: 1 foot.

Belfort: 1 foot.

High Falls: 1.5 feet.

During low-flow periods, Moshier, Soft Maple, Effley, and High Falls reservoirs are permitted to fluctuate a maximum of 3 feet.

## **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&WA has confirmed, through interviews with NYSDEC, that the Beaver River Project is in compliance with all conditions issued pursuant to a Clean Water Act - Section 401 Water Quality Certification issued for the project on August 24, 1995. The Section 401 WQC is conditioned on compliance with the terms of the settlement agreement. It also contains standard provisions related to erosion and sediment control for project maintenance and construction activities. The NYSDEC has confirmed that Reliant and its predecessor have 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 dam

remediation project at the Soft Maple development that involved blasting in the outlet channel in October and November of 2002.

- 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.** The NYSDEC, in their June 3, 2002 Section 303(d) List, has identified several areas of the Beaver River Project as well as tributary drainages that have high mercury levels and/or acid conditions. These include the Soft Maple and Moshier reservoirs (due to both mercury and acidic conditions). Contributing waters that have high mercury include the Stillwater Reservoir, Beaver Lake, Francis and Sunday Lakes draining into Beaver Lake. There are a number of acidic small water bodies that either drain into or are perched in the watersheds of the Stillwater, Moshier and Soft Maple reservoirs, including Sunday Creek, a tributary of Beaver Lake, and more than a dozen named lakes and ponds.

- 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.** This general area has a granitic bedrock geology that makes water bodies especially susceptible to acid rain impacts. Acid rain also contributes to high mercury deposition. The 303(d) report indicates the source of mercury and acidic conditions is atmospheric deposition.

### **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

N/A. The FERC license states, in Section VII., at page 14 “By letter dated July 13, 1995, (the Department of) Interior stated that it is not necessary to prescribe fishways at this time, but requested that the Commission (FERC) reserve authority to require the construction, operation, and maintenance of fishways subsequently prescribed by Interior. Consistent with Commission practice, Article 414 includes the requested reservation.”

L&WA has confirmed that USFWS has no present plans to exercise this authority; and that the authority is a general reservation related to potential resident riverine fishery issues, not migratory fish issues (see also # 2 and #3 of this section below).

- 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

**Qualified NO.** Dave Bryson of the USFWS indicated that it is generally agreed that anadromous species would not have been able to pass over the natural falls at the lowermost development, High Falls, even if they had made it that far up the drainage. Hence the project is above the natural habitat of anadromous species. Regarding eels, a catadromous species that is able to negotiate around most dams, the historic record is limited, dating back only to the 1920's and 30's. The record might or might not indicate presence of eels historically (he has not reviewed it). For that matter, he was unsure that they weren't there now, given reports of eels reaching as far as the Carthage area on the Black River less than 10 miles from where the Beaver enters the Black River. However, this area is so high in the system (eels would have to migrate up the St. Lawrence to Lake Ontario and then up the Black River and lower Beaver to reach the project area); and there are so many cataracts along the way, that even without dams, populations would likely be very low, in his opinion. For this reason, eels were not even an issue when the Settlement was reached, although eel passage has become more of a concern since the Settlement due to generally declining eel populations in the St. Lawrence (and other inland areas along the east coast).

- 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. It is not known if eels utilized this area historically, and if so, if they might still be present in very low numbers.

- 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 terms related to downstream fish passage for resident fish. Downstream passage for resident fish, including upgrading and installing trash racks to avoid impingement, was part of the License and Settlement. Installation of trash racks was to be implemented over time according to a schedule (see # 6 below). Reliant is legally bound to implement these measures as a condition of the License (enforceable by FERC) and Settlement Agreement.

There were no provisions for upstream passage, as the project was considered to be above the natural range of anadromous species, and catadromous species with the possible exception of eels. The USFWS did not consider eel passage to be warranted at the time of the Settlement.

**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.** USFWS, through its reserve Section 18 authority in the License (Article 414), has a continuing opportunity to issue a Mandatory Fish Passage Prescription for catadromous (and resident) species. It has elected not to exercise that authority to date. During an interview, Dave Bryson of the USFWS indicated the agency has no concerns at present that would result in exercising this authority in the foreseeable future. Mr. Bryson indicated that eels could already be present in the area in very low numbers; and that the habitat of the reservoirs would be suitable if they were able to make their way to them. He also stated that this area is so high in the system (eels would have to migrate up the St. Lawrence to Lake Ontario and then up the Black River and lower Beaver to reach the project area); and there are so many cataracts along the way, that even without the Project dams, populations would likely be very low, in his opinion. Even though the technology of eel passage could enhance passage over the project dams into the reservoirs and upstream areas, the FWS has not elected to pursue passage given that the numbers of eels that would be expected to use the area as a result of any passage facilities would be so low.

**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

**N/A.** There are no mandatory prescriptions (section 18 or similar) for the passage of riverine fish. However, the settlement included provisions based on resource agency recommendations for downstream passage for riverine fish (yellow perch, rock bass, white sucker, brown bullhead and pumpkinseed). These included minimum flows and new release structures at all but the Soft Maple facility. At Soft Maple, the agencies did not want to encourage passage of reservoir fish into the bypassed reach, which is being managed for brook trout, and so no downstream passage enhancement were provided at this facility. L&WA has confirmed, based on the FERC record, that structural measures to assist downstream passage were installed in 1997.

**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 installation of 1-inch trash racks at all developments on a staggered implementation schedule as listed below. In

addition, to prevent the passage of warmwater fish below the Soft Maple facility, ½ inch screening was installed at the Diversion Dam tunnel intake. Land & Water Associates has verified through documentation filed with FERC that Reliant completed installation of the trash racks at Effley and High Falls in October of 2002 (a filing for an extension of time was properly filed and approved).

Moshier: Required within 2 years of the license (by August, 1998).  
Completed.

Eagle: Required within 10 years of the license (by August 2006).

Soft Maple: Required within 2 years of the license (by August, 1998).  
Completed.

Effley: Required within 6 years of the license (By August 2002).  
Completed.

Elmer: Required within 14 years of the license (By August 2010).

Taylorville: Required within 10 years of the license (By August 2006).

Belfort: Required within 14 years of the license (By August 2010).

High Falls: Required within 6 years of the license (By August 2002).  
Completed.

#### **D. Watershed Protection [PASS, Qualified]**

**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 (Qualified).** The Beaver River project is in compliance with FERC license requirements regarding protection, mitigation or enhancement of project lands and watershed protection. These include limited impoundment fluctuations for shoreline erosion control, erosion/sediment control plans for any new construction, and management of project lands, through permits, used by the public, municipalities, utilities, etc.

In addition, a Beaver River Fund was established as part of the Settlement and License, to be used for a variety of measures within the watershed related to ecosystem protection, natural resources stewardship, public education, additional public access to outdoor recreational resources not provided for in the Settlement or License, and applied research needed to

accomplish these purposes. The total amount of the Fund, to be contributed over 30 years is \$590,000. To date contributions have totaled \$150,000 (as reported in a filing to FERC by Reliant, April 1, 2003). A Beaver River Advisory Council was established to oversee the Fund, comprised of settlement signatories and chaired by NYSDEC..

An initial \$80,000 contribution to the Fund was targeted to the acquisition of lands and conservation easements in the project area. This also includes the transfer of a 25-foot wide conservation easement around the Moshier development, acquisition of sand and gravel rights along the Moshier bypassed reach, and acquisition of fee title to a parcel of land in the Eagle development (Eagle Canyon), as specified in the Settlement Agreement (but not included in the License); however, to date, this has not been completed. See attached Report of Contacts for Bruce Carpenter (New York Rivers United) and Mike Contino (NYSDEC).

While there is no time frame specified for completing this transaction, the parties concerned express frustration that this has not been completed. Why there has been such a protracted process (an initial legal agreement was drafted by NYSDEC and sent to Niagara Mohawk on March 24, 1998) is not entirely clear; some of the factors include changes in staffing, changes in ownership, differing interpretations of the Settlement language, complications with surveys showing boundary lines differing from maps provided by Niagara Mohawk at the time of settlement; and lack of attention to the matter on both sides. At the request of Mr. Contino, I recommend making certification of the Moshier and Eagle developments contingent upon completion of these transactions.

#### **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.** Reliant has supplied supporting documentation from the USFWS (Letter dated March 12, 2003) which states that, except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under USFWS jurisdiction are known to exist in the project impact area; and that no habitat in the project impact area is currently designated or proposed as "critical habitat." Therefore, USFWS concludes no further Endangered Species Act coordination or consultation is required. NYSDEC confirms there are no threatened or endangered fish, wildlife, or plants known to exist within the Beaver River Project, per email from Len Ollivett (dated February 20, 2003. Follow-up by Land & Water Associates with USFWS (Dave Bryson), confirms there are no agency concerns (see documentation under Records of Contacts).

- 2) Skip
- 3) Skip
- 4) Skip
- 5) Skip

## **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 = Pass, go to G

N/A = Go to F2

NO = Fail

**YES.** Reliant states that the facilities in the Beaver River project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the FERC license. The historical resources for this project are limited to the Belfort powerhouse, penstocks and ogee dam. A Programmatic Agreement and a Cultural Resources Management Plan for addressing the historic character of this project is in place.

Land & Water Associates has reviewed the FERC record, including the FERC EA, License, and post-license filings, and agrees that the project is in compliance with requirements for cultural resources protection, mitigation and enhancement. The EA states that Niagara Mohawk had filed a Programmatic Agreement with the Commission for nine of its projects, including the Beaver River Project, in 1993. The company also had completed Cultural Resource Management Plans (CRMPs) for developments that were eligible for listing in the NRHP, which was approved by the NY State Historic Preservation Officer. The Belfort Hydroelectric Plan was the only historic resource in the Beaver River Project qualified to be listed. No historic properties or prehistoric or historic sites eligible for listing were recorded within the boundaries of the Moshier, Eagle, Soft Maple, Effley, Elmer, Taylorville or High Falls developments.

In July of 1996 a modified Programmatic Agreement was developed and executed for this project based on the 1993 PA. The FERC license required Niagara Mohawk to develop a CRMP within two years of the license. Niagara Mohawk submitted this within one year, in July of 1997. The CRMP was subsequently adopted.

Under the terms of the CRMP, Niagara Mohawk (or its successor) is required to file an annual report with the Commission and SHPO describing the activities conducted subject to the CRMP. Niagara Mohawk, and its successor, Reliant, have filed these annual reports. There is no evidence in the record of any issues of non-compliance.

## **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 = Go to G3

N/A = Go to G2

NO = Fail

**YES.** Under the terms of the Settlement and License, the following facilities were required:

Moshier: 1/year 4 hr. (400cfs) whitewater release in September or October, canoe portage, parking, whitewater boating access

Eagle: 5/year 4 hr. (200cfs) whitewater releases in September or October, canoe portage, parking, whitewater boating access, car top boat launch, fishing access to bypass

Soft Maple: canoe portage, parking, car top boat launch, campgrounds, primitive island campsites, picnic area, scenic overlook trail

Effley: canoe portage

Elmer: canoe portage

Taylorville: 5/year 4 hr. (400cfs) whitewater releases in September or October, canoe portage, parking, whitewater boating access, car top boat launch, picnic area, ADA trail system

Belfort: canoe portage, parking, impoundment ADA fishing deck

High Falls: canoe portage, parking, primitive island campsites, car top boat launch, picnic area.

Land & Water Associates has interviewed a number of parties to the settlement regarding the recreational facilities and measures to be implemented, and all expressed enthusiastic support for the improvements made at the project, and the success of the whitewater boating flows, portages, and other amenities (See Records of Contacts). The whitewater boating interests were especially happy with the cooperation and support they have received from Reliant. No agency expressed any problems with compliance with the License or Settlement recreation requirements, with the exception of some frustration that the land transfer that is to include lands for rock climbing in the Eagle Canyon had not been executed yet (see also comments under D. Watershed Protection).

## **H. Facilities Recommended for Removal [PASS]**

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

NO = Pass, Facility is Low Impact

YES = Fail

**NO.** There is no Resource Agency recommendation for removal of any of the project dams. The Settlement Agreement includes a clause on Project Decommissioning which states that “no signatory to this Settlement Offer has or is advocating decommissioning of the project or any of the project facilities during the term of the new license for the project.”

## **Reports of Contacts**

Dave Bryson, Project Biologist  
US Fish and Wildlife Service

Alice Richardson  
NYSDEC (Hydropower Coordinator;  
Replacement for Len Ollivett)

Mark Woythal  
NYSDEC (Albany Office)

Mark Craig (Wildlife Biologist)  
NYSDEC

Brian Fenlon (Regional Permit Administrator)  
NYSDEC

Ann Rice (Water Quality)  
NYSDEC

Mike Contino  
NYSDEC (Real Estate Division)

Bruce Carpenter  
NY Rivers United

Chris Koll  
American Whitewater Association

Betty Lou Bailey  
Adirondack Mountain Club

Alex Velto  
Adirondack Mountain Club

Barbara Rottier  
Adirondack Park Agency



## Report of Contact Beaver River Project

Date of Conversation: June 9, 2003

Person Contacted: Dave Bryson, Project Biologist  
Affiliation: US Fish and Wildlife Service

Telephone Number: 607-753-9334

Reviewer: Kathy Eickenberg, Land & Water Associates

### Summary of Discussion:

1. **Compliance with flow regulation and headpond fluctuation limitations:** He believes the project has been operated in compliance with the License and Settlement Agreement. He noted flows were subject to variations from upstream management of the Stillwater flood control/ flow augmentation project, but that this reservoir is not drawn down significantly even in the summer.
2. **Compliance with fisheries protection/enhancement measures:** He noted the return of wild brook trout to the Soft Maple bypass reach. The Soft Maple reach is the most suitable for brook trout due to springs combined with minimum flows. The reservoir fisheries are generally not very productive, although there is a fair bass fishery at the Moshier and Soft Maple developments.

He agreed that anadromous fish would not have reached this section of the river due to natural obstructions; he was not sure if eels are or would have been present naturally. This is fairly high up in the drainage, and the lower reaches have a lot of cataracts. If they were there it would be in very low numbers. He has heard of eels making it as far as the Carthage area on the Black River, less than 10 miles from where the Beaver River joins the Black River, so it is possible they could be in the area. However, eels were not an issue during the settlement negotiations or licensing. Their Section 18 reservation is a general one related to potential resident riverine fishery issues, not migratory fish issues.

3. **Water Quality Issues:** Water quality is not an issue in this river, despite the high acidity of some of the reservoirs, caused by acid precipitation (which has a major impact on lakes in the general vicinity of the projects).
4. **Threatened and Endangered Species:** He affirmed that the project does not contain critical habitat for T&E species. He speculated that eagles and Indiana bats may pass through as transient individuals. He does not know of any impacts that the project would cause to any such transient individuals.
5. **Compliance with Recreation Requirements:** He understands the whitewater boating flows have been a big success. A campground at Soft Maple is fairly popular; the Beaver River is part of a flat water canoe trail. As far as he knows, the facilities required in the license and Settlement have been installed, including canoe portages and some handicapped

accessible facilities. Lands are also to be transferred to NY DEC that include a cliff that is of interest to rock climbers. The Beaver River Fund is well established and funding a variety of projects, including a park that is part of a bike and hike trail downriver of the project.

## Report of Contact Beaver River Project

Date of Conversation: June 9, 2003

Person Contacted: Alice Richardson  
Affiliation: NYSDEC (Replacement for Len Ollivett)

Telephone Number: 315-785-2267

Reviewer: Kathy Eickenberg, Land & Water Associates

### Summary of Discussion:

**2. Compliance with flow regulation and headpond fluctuation limitations:** Her understanding, from her predecessor, and her experience, was that Reliant was diligent in reporting any incidents of flows or reservoir levels that deviated from the license conditions, such as when flashboards had to be replaced, or other instances requiring drawdowns. She would check her files to see if there were any documented concerns about the project operations.

**2. Compliance with fisheries protection/enhancement measures:** Her understanding was that they were in compliance with the schedule for installing trash racks. Regarding downstream fish passage measures, she could not say whether all the downstream passage measures had been implemented, but she noted most of the migrations occur at high water events, and this was not a big concern for the Department. The big gain, from her perspective, was rewatering the bypass reaches (which previous to the Settlement and License had only received leakage flows at times). Below the Soft Maple development, a native brook trout fishery has been re-established as a result.

Regarding upstream passage, she speculated that High Falls would have been a natural barrier to all migratory fish except possibly eels. She hadn't heard any concern expressed about eel passage, and referred me to the US Fish and Wildlife Service for more information about whether their historic habitat may have included the Beaver River projects.

**3. Compliance with Recreation Requirements:** Generally she found the company has done a good job with new facilities and recreation measures, especially with new campsites and portages. She noted that the land transfer (to NYSDEC) that was to include some climbing cliffs has not been executed yet, although the department is actively working on it. She referred me to Mike Contino (315-785-2692) who is working directly on this issue.

**4. Overall Assessment of Compliance with the License and Settlement:** The company is making a good faith effort to meet license conditions, and when not in compliance, it is for good reason or causes beyond their control.

**5. Other contacts:** Mark Woythal (Albany Office, NYSDEC, 518-402-8847); Ann Rice (Re Water Quality Limited Sections, 315-785-2523); Mike Contino (Real Estate, 315-785-2692).

**Report of Contact  
Beaver River Project**

Date of Conversation: June 11, 2003

Person Contacted: Mark Woythal  
Affiliation: NYSDEC (Albany Office)

Telephone Number: 518-402-8847

Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

1. **Compliance with flow regulation and headpond fluctuation limitations:** He stated he was not aware of any compliance problems; however, with a staff of 2 for 140 hydro projects in New York, they were not really monitoring these projects for compliance, and only respond when a problem is called to their attention by others.
2. **Compliance with fisheries protection/enhancement measures:** He did not speak to compliance with specific measures called for in the License or Settlement. However, he stated that this is not a great stretch of the river for fisheries since it is almost fully impounded except for the bypass reaches, which are largely bedrock. However, wild brook trout populations seem to have responded in the bypass reaches where flows have been augmented.
3. **Overall Assessment:** He was surprised that this project was being considered for Low Impact certification, as, in his mind, it was so impounded and the projects were not run-of-river. I explained the LIHI criteria did not require run-of-river. He expressed that the Settlement, in his mind, could have been better (he would like to have had some of the project run-of-river), but was overall acceptable.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 11, 2003  
Person Contacted: Mark Craig (Wildlife Biologist)  
Affiliation: NYSDEC  
Telephone Number: 315-785-2269  
Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

I spoke with Mark upon learning that Len Ollivett had retired; he referred me to Len's replacement, Alice Richardson. I did gather some information about the general context for the project regarding the 303(d) water quality limited sections. He said the Beaver Project was located in an area that was heavily impacted by acid rain; many lakes were "almost like vinegar" in the headwaters of the Beaver River and surrounding area. He also stated that the Stillwater Reservoir was drawn down for repairs in 2001, all summer, and was not refilled until the following fall-winter period. He referred me to Alice Richardson.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 12, 2003

Person Contacted: Brian Fenlon – Regional Permit Administrator  
Affiliation: NYSDEC

Telephone Number: 315-785-2245

Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

I asked if the Department had any record of activities that would trigger 401 certification requirements at the Beaver River Project. Initially Mr. Fenlon replied that he has no record of any such activities, and that to trigger review by his office they would have to be doing construction in the river channel or river banks. A review of online FERC records shows that Reliant undertook blasting (location indicated far end of outlet channel) as part of a diversion dam seismic remediation project at the Soft Maple Development in October and November of 2002. When I brought this to Mr. Fenlon's attention he said he was not personally aware of this and referred me to Alice Richardson, who took over for Len Ollivett when he retired this spring, and who was the hydropower coordinator. She initially responded that if it takes place in a FERC project area it does not need a permit from the Department. I questioned whether blasting in a river channel would be subject to the state standard 401 certification conditions regarding project maintenance and construction, requiring an erosion control plan, turbidity monitoring, flow maintenance, etc. Alice agreed to search their files and contact Len if necessary to see if the Department had been involved in this work. She later got back to me and confirmed that they had been properly consulted.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 9, 2003  
Person Contacted: Mike Contino  
Affiliation: NYSDEC (Real Estate Division)  
Telephone Number: 315-785-2270  
Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

**1. Compliance with Land Transfer Provisions of the Settlement Agreement.** Mr. Contino expressed frustration that, from his perspective, Reliant has dragged its feet over the past five years regarding reaching agreement on the terms of a fee transfer of some lands and easement on others, negotiated as part of the Settlement Agreement. The process has been complicated by the fact that Niagara Mohawk sold the project in July of 1999; and the NYSDEC person who originally pursued this, Doug Wilson, retired in the spring of 1999. Further, there was some disagreement over the terms of the Settlement Agreement; it appears that while it was clear that an area called "Eagle Canyon" was to be transferred, one clause left room to negotiate more lands as part of the transfer. Niagara Mohawk apparently agreed to transfer some lands that Reliant later did not agree to; and there seems to be disagreement about the term of an easement to provide access to the fee lands NYSDEC is acquiring. NYSDEC requires the access rights to be in perpetuity; Reliant wanted them to be only for the term of the license. Mr. Contino said a year ago (April 2002) he sent a revised agreement to Reliant and only heard from them this spring, meeting with them on June 4<sup>th</sup>. A site visit is planned for June 16; after that he hoped a transaction will be executed. He expressed the view that, perhaps, they are paying attention to this now that they have applied for LIHI certification. He would like to see the land deal finished before they are certified. He sent me a record of the communications on this issue (fax copy to be forwarded).

**Follow-up June 17, 2003:**

Mr. Contino explained that as a result of the site visit on June 16<sup>th</sup>, the State and Reliant are in basic agreement about the terms of the transaction, although he will still need to have the program people who will be administering the lands/easements review and approve the agreement, before it can be finalized. He mentioned that Reliant has to execute a deed correction with Naigara Mohawk as the deed issued by Niagara Mowhawk to them included, mistakenly, some state lands.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 17, 2003

Person Contacted: Steve Murphy  
Affiliation: Reliant Energy

Telephone Number: 315-413-2788

Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

I asked Mr. Murphy about the status of the lands transfer for the Beaver River Project; when did he expect the transaction to be completed, and whether there were any remaining issues. He said that as a result of the site visit on June 16<sup>th</sup>, they (the State and Reliant) had agreed upon a location for an access easement to the fee lands at Eagle Canyon. He expected it would be another month before his company would have the required information developed for the State, and after that the Attorney General's Office would have to approve it, which could take some time. I asked him what he felt had been the primary reasons for the delay in accomplishing the lands transaction; he felt the delay was due to changes in personnel at the State and changes in the project ownership.



## Report of Contact

### Beaver River Project

Date of Conversation: June 10, 2003

Person Contacted: Bruce Carpenter  
Affiliation: NY Rivers United

Telephone Number: 315-339-2097

Reviewer: Kathy Eickenberg, Land & Water Associates

#### Summary of Discussion:

- 1. Compliance with flow regulation and whitewater boating flow releases:** He believes the project has been managed in compliance with the License and Settlement Agreement. Whitewater boating flows were initiated the year after the Settlement and have been a great success. The flows are popular, and Reliant has been very accommodating in providing overflow parking areas, and making sure the transportation between the put-in and take-out areas worked well (enough room for turn-arounds, etc.). As far as minimum flows, he was pleased with the return of natural trout populations in the Soft Maple bypass.
- 2. Compliance with fisheries protection/enhancement measures:** Doesn't know of any compliance issues.
- 3. Compliance with land transfer element of the Settlement Agreement.** Bruce indicated he and the assistant commissioner of the NY DEC came up with this part of the Settlement almost as an afterthought, and because of timing in working it out, and perhaps other issues, it was executed as a sidebar agreement, and was not incorporated in the License. He was actively involved in the negotiations for this, and from his perspective, there are a number of reasons it has taken so long to implement (he knows the transfer has not yet been accomplished).

Among the complicating factors he cited were (1) Niagara Mohawk had agreed to sell all lands in the vicinity of Eagle Canyon that were not needed for project purposes and apparently negotiated a tentative agreement that later was changed by Reliant, in part because the boundaries of the property as shown on the maps used during negotiations did not match the re-surveyed boundaries; (2) The state did not pay attention to the Settlement Agreement and initially thought the land was intended for river access, and when they realized it was for rock climbing, they were reluctant to accept it due to liability concerns; the state is agreeing to acquiring this for rock climbing now however. (3) Niagara Mohawk tried to renegotiate the agreed upon value at one point. Overall, Bruce felt Reliant was not the problem so much as circumstances associated with Niagara Mohawk's deeds, sale of the property, and continued involvement in the transaction (I am not clear exactly how but I think it may be that some of the lands in question were transferred to Reliant and some were not). Overall, Bruce did not feel that Reliant is at fault in the delay in getting this land transfer implemented.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 10, 2003  
Person Contacted: Chris Koll  
Affiliation: American Whitewater Association  
Telephone Number: 315-475-7499  
Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

Mr. Koll is the liaison with Reliant working out whitewater boating flow releases. He was recommended as a contact by Mr. Peter Skinner. He described Reliant as very cooperative and amenable to working out arrangements for whitewater boaters even when work was scheduled for dam maintenance. During a 5-6 year period with some historical drought conditions, they only had to cut back one boating release. He was very satisfied with their operation of the project for whitewater boating.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 6, 2003  
Person Contacted: Betty Lou Bailey  
Affiliation: Adirondack Mountain Club  
Telephone Number: 518-355-0604  
Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

The interest of the Adirondack Mountain Club in this project was centered on recreation features and the Beaver River Fund. She thought overall Reliant was complying with its License and the Settlement, except that the transfer of some lands was not yet implemented. She referred me to the local representative who serves on the Beaver River Advisory Council, Alex Velto (315-782-7110).

**Report of Contact  
Beaver River Project**

Date of Conversation: June 6, 2003

Person Contacted: Alex Velto  
Affiliation: Adirondack Mountain Club

Telephone Number: 518-355-0604

Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

Mr. Velto said the land transfer was moving at a glacial pace, and from his perspective, it is mostly due to a slow state bureaucracy. Other than the easements around the Moshier Project (25 feet only, abutting state lands) and the transfer of some lands of interest for rock climbing, the Settlement did not address shoreland or watershed conservation issues per se. However, the Beaver River Fund is very broad in its purposes and can be used outside the project area. He is a member of the Beaver River Advisory Council; the Council meets only twice per year, to decide on projects it will fund.

**Report of Contact  
Beaver River Project**

Date of Conversation: June 11, 2003

Person Contacted: Barbara Rottier  
Affiliation: Adirondack Park Agency

Telephone Number: 518-891-4050

Reviewer: Kathy Eickenberg, Land & Water Associates

Summary of Discussion:

Ms. Rottier was the lawyer for the Adirondack Park Agency involved in the negotiations for this project but has not had much contact with it since. She believes Reliant is basically in compliance with the terms; her agency has not had any issues that have risen to her attention. She noted that this was one of the earliest Settlement Agreements in New York; in her mind the Settlement Agreement does not in and of itself indicate that the project has a low impact. She believes the flows are still too low in the bypass reaches. The problem with this Settlement was that the major water control occurs upstream in an unlicensed flood control and flow augmentation project in the Stillwater Reservoir.

**Attachments**  
**Beaver River Project**  
**LIHI Certification Review**  
June 16, 2003

1. Lands and Conservation Easements – History of communications between NYSDEC and Niagara Mohawk/Reliant Energy. Provided by Mike Contino, NYSDEC
2. Article 403 – Minimum flows/fish passage provisions. Final Construction Report, February 20, 1998.
3. Article 413 – Trash Racks. Report of completion of trashrack installation for the Effley and High Falls developments. November 5, 2002.
4. Article 415 – Recreation Plan. FERC Order approving the recreation plan.
5. Article 416 – Beaver River Fund. April 1, 2003 Compliance letter from Reliant Energy.
6. Article 417 – Cultural Resources Management Plan – FERC record of annual report from Erie Boulevard Hydro, August 7, 2002.