

**Review of Low Impact Hydropower Institute  
Application  
for Low Impact Hydropower Re-Certification:  
Pawtucket (RI) No. 2 Small Hydroelectric Project**

**Introduction and Overview**

This report reviews the application submitted by Pawtucket Hydropower (applicant) to the Low Impact Hydropower Institute (LIHI) for Low Impact Hydropower Certification for the Pawtucket No. 2 Small Hydroelectric Project (project or facility) in the city of Pawtucket in Providence County, Rhode Island. The Federal Energy Regulatory Commission (FERC) issued the project a license exemption (FERC 3689) in 1981 for the operation and maintenance of the 1,675 kilowatt, run-of-river facility.

Project and site characteristics. The project is located at the mouth of the Blackstone River, one of the largest tributaries draining to Narragansett Bay; the waters immediately below the dam are fully tidal salt water (i.e., the dam is at “head of tide”), and also the head of the Seekonk River (an estuarine river). The Blackstone River, which originates in Massachusetts and crosses into Rhode Island, drains a watershed of 475 square miles that includes both highly urbanized and historically industrialized areas, such as the city of Pawtucket, and large undeveloped areas. The river is characterized by numerous dams and channelization for transportation, urban development, and flood control. The project dam at Pawtucket Falls is thought to have first been constructed in the early 1700s.<sup>3</sup>

The project consists of “(1) a brick and timber dam, about 200 feet long and 4 feet high, constructed at the top of waterfalls about 13 feet high; (2) a reservoir of negligible storage...; (3) an intake structure and brick-lined underground tunnel (penstock) 17.5 feet in diameter and 130 feet long; (4) a brick and granite hydroelectric station building...and a tailrace, 90 feet long and 45 feet wide...”<sup>4</sup> In conjunction with FERC’s issuance of the 1981 license exemption to the project’s previous owner, Blackstone Valley Electric Company, waterwheels and generators were replaced with turbines. Today the project operates two 1.9 meter full Kaplan turbines with total installed capacity of 1,300 kilowatts and average annual generation of 4,000 megawatt hours. The facility operates in run-of-river mode, with a small impoundment of approximately 1 acre in surface and 2 acre-feet in volume; the facility inundates less than 1/2 acre. Non-reservoir facilities occupy 1/2 acre. Blackstone Valley Electric Company transferred facility ownership to the applicant in 1999.

In 2002 the Rhode Island Department of Environmental Management (RIDEM), through its operation of the Narragansett Bay Estuary Program, concluded the process of developing a

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<sup>3</sup> Narragansett Bay Estuary Program. *Blackstone River Fisheries Restoration Plan*. Report #02-120. Providence, RI. May 2002.

<sup>4</sup> Federal Energy Regulatory Commission. Order Granting Exemption from Licensing of a Small Hydroelectric Project of 5 Megawatts or Less. Project No. 3689-000. July 21, 1981.

*Blackstone River Fisheries Restoration Plan* with the involvement of the multi-stakeholder Blackstone River Fish Restoration Steering Committee. The applicant participated in the plan's development as a member of that committee, but submitted a critique of the study commissioned by RIDEM from the University of Rhode Island (URI) that makes the case for the historical presence of anadromous fish in the Blackstone River. Both the URI study and the applicant's critique were included as appendices to the restoration plan.

The restoration plan includes the following statement:

On the basis of this body of evidence, it is the position of the Narragansett Bay Estuary Program, the R.I. Department of Environmental Management and others that the Blackstone River historically supported annual runs of anadromous fish, specifically, salmon, herring and shad. The Bay Program and the Department recognize, however, that it is impossible to ascertain with certainty the condition of the river 300 years ago, and that the process by which the runs declined during the era of dam building is somewhat unclear. The Bay Program and the Department recognize as well that opinions differ as to the meaning of the documentary evidence. Appendix 4 provides an alternative review and analysis of the historic record, which contrasts that presented in the URI research.

The restoration plan's goal is to restore self-sustaining populations of shad and river herring (but not Atlantic salmon) to the Blackstone River basin. Implementation of the plan, which was completed in 2002 and subsequently approved, will not commence until proponents are successful in securing the necessary funding. In telephone conversation agency staff shared the perspective that the Pawtucket Hydroelectric project, like the two other hydroelectric facilities on the lower Blackstone River, are significant for their historical value, important as viable small businesses in an economically depressed region, and positive in their generation of climate friendly energy.<sup>5</sup>

Public comment and agency letters. LIHI received two public comments on this application, both expressing concerns about or opposing the project's certification. Russ Cohen, River Advocate, Massachusetts Riverways Programs (part of the Massachusetts Department of Fisheries, Wildlife and Environmental Law Enforcement) expressed the sentiment that providing fish passage at the facility should be a prerequisite to LIHI certification.

John Torgan, Narragansett BayKeeper, Save the Bay, contends that the facility results in the entrainment, impingement, and destruction of fish. He also asserts that the applicant has taken a "position against participating in any state or federal restoration program" of anadromous fish, further citing what he says is the applicant's contention "that no anadromous fish have ever naturally existed above this facility," which Torgan says "is not supported by the best available scientific information." Torgan writes that Save the Bay would reconsider its objection to certification contingent on the applicant's explicit agreement to cooperate in the state fish restoration program, and to implement measures to prevent entrainment and impingement.

The applicant submitted rebuttals to both letters. The letters and rebuttals are available on the

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<sup>5</sup> Ardito, Thomas. Narragansett Bay National Estuary Program. Personal communication. 25 June 2004.

LIHI website (<http://www.lowimpacthydro.com>).

There were also two letters of contingent support for certification that accompanied the application. One was written to LIHI by RIDEM and the other to the applicant (and included with the application for LIHI certification) by the U.S. Fish and Wildlife Service (FWS). Both affirmed that the applicant is in compliance with all existing resource agency requirements. RIDEM expressed support for certification conditional to “[c]ontinued cooperation of the facility with the Department’s plans to restore anadromous fish passage on the lower Blackstone River [...]” FWS interpreted LIHI criteria as requiring the applicant to submit to LIHI “evidence of your commitment to provide fish passage when required in the future.” FWS requested that the applicant forward to FWS a “copy of whatever evidence you submit to LIHI [...]”

General conclusions. The LIHI Governing Board’s decision whether to certify the Pawtucket Hydroelectric Project will depend on its assessment of the enforceability of Standard Article 2 of the project’s FERC exemption, requiring “compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources” as contained in “any letters of comment of these agencies.” FWS submitted such comment timely in 1981 prior to FERC’s issuance of the exemption, requiring “fish passage facilities and any other appropriate project modifications...when the Rhode Island Division of Fish and Wildlife implements a plan for restoring anadromous fish to the Blackstone River.”<sup>6</sup>

The relevant resource agencies have submitted in writing that the applicant is in compliance with all existing requirements and have confirmed the validity of the requirement for fish passage and other modifications when RIDEM implements its *Blackstone River Fisheries Restoration Plan*. Resource agency staff also confirmed in telephone conversation that the applicant has, to date, agreed to all requests for cooperation. However an agency staff person and a public commenter raised concerns that the applicant has expressed an unwillingness to fulfill future obligations imposed by RIDEM’s fisheries restoration plan. The applicant stated in a rebuttal to Save the Bay’s comment on this point that “I do not have a position against participating with any state or federal agencies. Although I have disagreed with government agencies on some points I have participated and cooperated with them [...]” In a telephone conversation the applicant stated “we are in compliance with our exemption obligations and intend to be.”<sup>7</sup>

The applicant’s disagreement with government agencies is focused, in large part, on whether or not there were historic anadromous fish populations in the Blackstone River. The applicant’s rebuttal to one public commenter included the statement “[i]t is appropriate, if one wishes, to simply want fish passage as an environmental goal but it is not appropriate to [assert that runs of anadromous fish ever went up the Blackstone River beyond the natural falls in Pawtucket].” For the reason discussed in my recommendation, in my judgment this position is not a significant factor in the LIHI Governing Board’s consideration of whether to certify this project.

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<sup>6</sup> Patterson, William P., Regional Environmental Officer, U.S. Department of the Interior. Letter to Kenneth F. Plumb, Secretary, Federal Energy Regulatory Commission, 21 May 1981. ER 81/722. *Response to public notice dated March 23, 1981, regarding the Application for Exemption, Pawtucket No. 2 Project, FERC No. 3689, Blackstone River, Pawtucket, Providence County, Rhode Island.* Boston.

<sup>7</sup> Rosenfield, Charles. Personal communication. 29 July 2004.

Recommendation. Based on my review of information submitted by the applicant, my review of additional documentation, and my consultations with resource agency staff, I believe the Pawtucket No. 2 Small Hydroelectric Project meets all of the criteria to be certified and I recommend certification. However, this recommendation to certify is contingent on two factors:

- 1) That the LIHI Governing Board concurs in my assumption that Standard Article 2 of the project's FERC exemption is a legally binding requirement that the applicant modify the project consistent with a state anadromous fisheries restoration plan if and when RIDEM implements such a plan.
- 2) That the applicant submit documentation relating to the status of implementation of any state anadromous fisheries restoration plan as it may or may not affect the facility if and when the applicant applies for renewal of the facility's certification, or sooner and periodically as the LIHI Governing Board may decide.

### Low Impact Certification Criteria

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#### A. Flows:

##### Criteria

- 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 conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?**

**NOT APPLICABLE.**

*If not applicable, go to A2.*

- 2) **If there is no flow condition recommended by any Resource Agency for the Facility, or if the recommendation was issued prior to January 1, 1987, is the Facility in Compliance with a flow release schedule, both below the tailrace and in all bypassed reaches, that at a minimum meets Aquatic Base Flow standards or "good" habitat flow standards calculated using the Montana-Tennant method?**

**NO.**

*If no, go to A3.*

- 3) **If the Facility is unable to meet the flow standards in A.2., has the Applicant demonstrated, and obtained a letter from the relevant Resource Agency confirming that**

**demonstration, that the flow conditions at the Facility are appropriately protective of fish, wildlife, and water quality?**

**YES.**

The Environmental Protection Agency (EPA) in a February 19, 2004 letter stated its agreement with the 50 cubic feet per second (cfs) flow required by the applicant's 1981 FERC exemption. EPA cited "the fact that the river is tidal to the downstream face of the project dam" as its reason for agreeing that the 50 cfs flow is adequate. FWS in a March 29, 2004 letter stated its belief that the applicant is in compliance with required flows, and did not take issue with the 50 cfs flow requirement. In a February 16, 2004 letter RIDEM stated that it considers the 50 cfs requirement adequately protective, while "reserving the right to reconsider this determination should it deem additional flows are necessary" in the future.

### **DISCUSSION**

Both EPA and FWS originally recommended higher flows at the time the then owner of the Pawtucket Project sought the FERC exemption in 1981; both agencies acknowledged in 2004 that they based their recommendations on standard calculations and that the recommendations did not reflect the tidal nature of the waters below the project. In its 2004 letter RIDEM noted that "[t]he water quality certificate issued by [RIDEM] for the facility in 1980 noted that a minimum spillway release of 50 cfs instead of the 7Q10 flow of 115 cfs was deemed adequately protective of water quality given the tidal nature of the river below the dam and short distance between the dam and the tailrace from the generating facility."

**PASS.**

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#### **B. Water Quality:**

**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**
- 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.**

In its February 16, 2004 letter RIDEM states that it "does not believe that the subject facility has any impact on water quality on the river, nor does the subject facility impact the R.I. 303(d) list."

***If yes, go to B2.***

- 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.**

The State of Rhode Island's most recent (2002) list of impaired water bodies includes the waters immediately above and below the facility. Water quality impairments include elevated levels of ammonia, nutrients, low dissolved oxygen, copper, lead, and human pathogens (fecal coliform).

*If yes, go to B3.*

- 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.**

See answer to B(1) above.

**PASS.**

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**C. Fish Passage and Protection:**

- 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?**

**NOT APPLICABLE.**

*If not applicable, go to C2.*

- 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.**

*If yes, go to C2a.*

RIDEM's position is that historically anadromous fish moved through the facility area. The two appendices to the *Blackstone River Fisheries Restoration Plan* relevant to this questions – the University of Rhode Island study commissioned by RIDEM establishing the case for historic

presence of anadromous fish, and the critique authored by the applicant – are included as attachments to this application reviewer’s report.

- 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?**

**NOT APPLICABLE.**

*If not applicable, go to C2b.*

- 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.**

Standard Article 2 of the project’s FERC exemption requires “compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources” as contained in “any letters of comment of these agencies.” FWS submitted such comment timely in 1981 prior to FERC’s issuance of the exemption, requiring “fish passage facilities and any other appropriate project modifications... when the Rhode Island Division of Fish and Wildlife implements a plan for restoring anadromous fish to the Blackstone River.”<sup>8</sup> The applicant is subject to all the conditions of the exemption as if he were the original licensee. RIDEM has an approved *Blackstone River Fisheries Restoration Plan*. According to RIDEM staff, implementation of the plan is contingent on securing funding.

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UPDATE 2009 – The Applicant has entered into a fish passage Memorandum of Agreement. To see a signed version of the fish passage Memorandum of Agreement click on *Pending Applications* and choose *Pawtucket Project* and click on the link, scroll to the bottom of the page and under the *Files* section open this pdf : [Pawtucket DEM MOA agreement signed.pdf](#)

*If yes, go to C3.*

**3) If, since December 31, 1986:**

- c) **Resource Agencies have had the opportunity to issue, and considered issuing, a Mandatory Fish Passage Prescription for upstream and/or downstream passage of**

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<sup>8</sup> Patterson, William P., Regional Environmental Officer, U.S. Department of the Interior. Letter to Kenneth F. Plumb, Secretary, Federal Energy Regulatory Commission, 21 May 1981. ER 81/722. *Response to public notice dated March 23, 1981, regarding the Application for Exemption, Pawtucket No. 2 Project, FERC No. 3689, Blackstone River, Pawtucket, Providence County, Rhode Island.* Boston.

**anadromous or catadromous fish (including delayed installation as described in C2a above), and**

- d) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,**
- e) 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.**

As noted above, funding constraints are reportedly the only obstacle to RIDEM implementing its anadromous fish recovery plan for the Blackstone River, and the reason the agency has not yet issued mandatory fish passage prescriptions for the facility.

*If no, go to C5.*

- 5) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream or downstream passage of riverine fish?**

**NOT APPLICABLE.**

There are no mandatory fish passage prescriptions for upstream or downstream passage of riverine fish.

#### **DISCUSSION**

Note that because the project is at "head of tide," any riverine fish that pass below the facility enter a salt water environment.

*If not applicable, go to C6.*

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

**NOT APPLICABLE.**

**PASS.**

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#### **D. Watershed Protection:**

**Criteria:**

- 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, or regarding other watershed protection, mitigation and enhancement activities?**

**NOT APPLICABLE.**

There are no resource agency recommendations or license exemption conditions regarding watershed protection.

**PASS.**

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**E. Threatened and Endangered Species Protection:**

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

**YES (CONTINGENT).**

RIDEM's March 29, 2004 letter stated that "[n]o threatened and endangered species are known to be impacted by the facility." The FWS letter did not mention any listed species. At the time of this writing a request is in to both agencies to confirm whether any are present. This analysis presumes one or more may be present but are unaffected by the facility, as RIDEM's letter asserts. Any information to the contrary will be provided at the LIHI Governing Board meeting to consider certification of the project

*If yes, go to E2.*

- 2) If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?**

**NOT APPLICABLE.**

*If not applicable, go to E3.*

- 3) If the Facility has received authority to Incidentally Take a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental take statement; (ii) Obtaining an incidental take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authority pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authority?**

**NOT APPLICABLE.**

*If not applicable, go to E5.*

**5) If E2 and E3 are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?**

**YES.**

In its February 16, 2004 letter, RIDEM stated that “[n]o threatened and endangered species are known to be impacted by the facility.”

**PASS.**

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**F. Cultural Resource Protection:**

**Criteria:**

**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?**

**NOT APPLICABLE.**

There were no requirements in the exemption regarding cultural resource protection.

**PASS.**

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**G. Recreation:**

**Criteria:**

**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?**

**NOT APPLICABLE.**

There were no requirements in the exemption regarding recreation.

**PASS.**

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**H. Facilities Recommended for Removal:**

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

**NO.**

There have been no recommendations for removal of the facility.

**PASS.**

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**FACILITY IS LOW IMPACT**

**RECORD OF CONTACTS WITH RESOURCE AGENCY STAFF**

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Date of Conversation: June 24, 2004  
Application Reviewer: Gabriela Goldfarb, Consultant  
Person Contacted: John O'Brien, Freshwater and Anadromous Fisheries, Div. of Fish and Wildlife, Management, Rhode Island Dept. of Environmental Management  
Telephone/email: Telephone call.  
Areas of Expertise: Anadromous and riverine fish biology and restoration

Mr. O'Brien confirmed that RIDEM had completed the Blackstone River Fisheries Restoration Plan, but that the state had no near term plans to move forward with the plan's implementation due to funding constraints. When asked whether fish impingement or entrainment was a problem at the facility, he said that to his knowledge the Division of Fish and Wildlife Management has no involvement in looking at that issue, and that he did not know who in RIDEM would have such responsibility. He suggested contacting someone in permitting.

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Date of Conversation: June 24, 2004  
Application Reviewer: Gabriela Goldfarb, Consultant  
Person Contacted: Tom Ardito, RI Dept. Environmental Mgmt./Narragansett Bay National Estuary Project  
Telephone/email: Telephone call.  
Areas of Expertise: Author of Blackstone River Fisheries Restoration Plan, Drafter of RIDEM Letter of Support for LIHI Certification of Pawtucket Hydro Project

Mr. Ardito described the Blackstone River as a major restoration opportunity. It is one of the two largest rivers draining to Narragansett Bay. The other is the Taunton, which has a million-fish run of herring returning to the river. The Blackstone has "tons of fish bumping up against [the Pawtucket] dam." The U.S. Army Corps of Engineers (USACE) did a study assessing the restoration potential of the Blackstone some time back, with positive results. The Narragansett Bay Estuary Program (NBNEP) and the Division of Fish and Wildlife, R.I. Department of Environmental Management (RIDEM) decided to do so again, but this time with the involvement of a multi-stakeholder group convened as the Blackstone River Fish Restoration Steering Committee that included hydropower dam owners, environmental groups, other community and business interests, federal and state agencies, and academia. As a whole the group concluded that restoration would be worthwhile, though very challenging, and issued the Blackstone River Fisheries Restoration Plan. Among the most serious hurdles are the three small hydroelectric dams (there is a 4<sup>th</sup> non-hydro dam). The stakeholders recognize their value as small businesses in an economically challenged region and a source of non-greenhouse gas emitting energy. However, they also believe the hydro projects are using a public resource and have a responsibility to participate in mitigating the impacts of their projects. Ardito noted that the facilities generate relatively low amounts of revenue; he projected annual revenues to Pawtucket Hydro in a good year at \$200,000 while the anticipated cost of a fish ladder at the site is \$600,000.

Ardito says that the stakeholder initiative reflects a desire to pursue a collaborative approach to getting restoration to happen, rather than pursuing regulatory means or lawsuits. RIDEM/NBNEP is starting the process of seeking to secure a portion of the necessary restoration via the USACE civil works project process. Ardito believes supporting Pawtucket Hydro in its efforts to get LIHI certification is helpful in building goodwill, and if Pawtucket Hydro succeeds in increasing its revenue stream through the sale of green energy, it will be in a better position to contribute financially to restoration. Ardito emphasized that Pawtucket Hydro owner Charlie Rosenfield is in compliance with all current regulatory requirements, that Rosenfield actively participated in the stakeholder process that produced the Blackstone River Fisheries Restoration Plan (see note following), and to date has agreed to everything asked of him. At the same time, Ardito reported that Rosenfield maintains that a study forming the basis for claims of historical populations of anadromous fish in the Blackstone River, commissioned from the University of Rhode Island by a subset of the stakeholder group preparing the Blackstone River Fisheries Restoration Plan and included in an appendix to the plan, is wrong in fact and interpretation. Rosenfield prepared a critique of the study that was included as an appendix to the plan that details his assertions that there is no historical evidence proving the existence of anadromous fish in the Blackstone River. (Ardito forwarded me a copy both of the study and Rosenfield's critique.)

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Date of Conversation:	June 25, 2004
Application Reviewer:	Gabriela Goldfarb, Consultant
Person Contacted:	Tom Ardito, RI Dept. Environmental Mgmt./Narragansett Bay National Estuary Project
Telephone/email:	Telephone call – follow up call.
Areas of Expertise:	Author of Blackstone River Fisheries Restoration Plan, Drafter of RIDEM Letter of Support for LIHI Certification of Pawtucket Hydro Project

In this follow up phone call I asked Mr. Ardito about the counterclaims of Pawtucket Hydropower project owner Charles Rosenfield asserting that the historical record does not conclusively demonstrate the presence of anadromous fish. Mr. Ardito said that qualified experts had reviewed and agreed to the validity of the report prepared in conjunction with the Blackstone River Fisheries Restoration Plan presenting historical evidence that there were anadromous fish. Mr. Ardito confirmed that the State of Rhode Island's position is that the Blackstone River historically supported runs of salmon, shad, and river herring. He cited two recent examples of evidence that the Blackstone offers strong restoration potential: sampling of fish at the foot of the Pawtucket dam that included two species of (non-salmon) gravid anadromous fish, as well as an experiment in restocking (non-salmon) anadromous fish above the dams which resulted in successful reproduction. He noted that the Blackstone is the only hydro river in the state.

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Date of Conversation:	June 28 & 29, 2004
Application Reviewer:	Gabriela Goldfarb, Consultant
Person Contacted:	Charles Rosenfield, Pawtucket Hydropower

Telephone/email: Emails.  
Areas of Expertise: Owner of Pawtucket Hydroelectric Project

In this email exchange, I said I wanted my application reviewer's report to accurately represent Mr. Rosenfield's position with regards to implementation of the state's fisheries restoration plan. I acknowledged what I understood his position to be, namely "that you believe there never were anadromous fish in the Blackstone River, ergo it is not a restoration." In response, Mr. Rosenfield wrote: "A clarification: My position is not just that I believe there were never anadromous fish runs above the natural falls in Pawtucket, but that the authors of the "Restoration Plan..." have made false and misleading statements on this subject in order to justify and gain support for their program. To simply say we disagree is incomplete enough to be inaccurate. Someone isn't telling the truth."

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Date of Conversation: June 29, 2004  
Application Reviewer: Gabriela Goldfarb, Consultant  
Person Contacted: Charles Rosenfield, Pawtucket Hydropower  
Telephone/email: Telephone call.  
Areas of Expertise: Owner of Pawtucket Hydroelectric Project

In addition to a June 29, 2004 email response, Mr. Rosenfield telephoned me regarding my offer to give him the opportunity to provide a statement regarding his future intentions with respect to cooperating with implementation of the *Blackstone River Fisheries Restoration Plan* if and when implemented by RIDEM, as required by Standard Article 2 of the FERC exemption. Mr. Rosenfield stated that "we are in compliance with our exemption obligations and intend to be."

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Date of Conversation: July 1, 2004  
Application Reviewer: Gabriela Goldfarb, Consultant  
Person Contacted: John Torgan, Narragansett Baykeeper, Save the Bay  
Telephone/email: Telephone call.  
Areas of Expertise: Environmental advocate.

Mr. Torgan sees Charles Rosenfield, owner of the Pawtucket Hydro project as a major impediment to implementation of the *Blackstone River Fisheries Restoration Plan* because of what Torgan says is Rosenfield's unwillingness to pay for fish passage improvements. Torgan believes that Rosenfield would be willing to let someone else pay for and "deal with" fish passage. Torgan also believes that the facility is killing fish, and that Pawtucket Hydro is not being held accountable for that as any other hydroelectric facility would be, and that on that basis alone it should not be classified as a "green" facility.

**NOTE: The following are contacts made after June 11, 2009.**

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Date of Conversation: June 15, 2009  
Application Reviewer: Fred Ayer, Executive Director  
Person Contacted: David Newton, Member of the Blackstone River Watershed Council (BRWC) and Friends of the Blackstone (FOB)  
Telephone/email: e-mail and Telephone call.  
Areas of Expertise: Fishery restoration programs and §401 water quality issues

LIHI received a comment letter from Mr. Newton on June 15, 2009 and spoke with him by phone that same day. Mr. Newton, who is the liaison for the BRWC/FOB to the Blackstone River Coalition (BRC) had sent us an email expressing his concerns that Blackstone River advocates were not made aware of the public comment period for the Pawtucket LIHI re-certification application. Mr. Newton described how he had received an email on June 11, 2009 from Russ Cohen of the Mass Riverways Program identifying the re-certification application and public comment opportunity. Mr. Newton said that he was “deeply disappointed to learn that the public comment period was closing June 13; too quick to organize those concerned to provide pertinent comment on the application.”

Mr. Newton is concerned that LIHI was not aware of ongoing activities on the Blackstone River and asked us to inform him “...if LIHI was aware of the BRWC/FOB, and its flagship project to bring anadromous fish back to the Blackstone? Have you heard of the BRC? Was any other organization or state or local Agency contacted (such as: the Blackstone River Valley National Heritage Corridor (and its Commission), the Rhode Island Rivers Council, Save the Bay, The Rhode Island Natural Resources Conservation Service (NRCS), Rhode Island Coastal Resource Management Council (CRMC), Rhode Island Audubon, or Rhode Island Rivers Council? Usually our partners in Rhode Island are astute at identifying the issues and active in communicating with each other on important subject matter which impacts our river. So you can understand that I am a bit taken aback by not hearing, in a more formal way, of this particular and rather important application process until such time that it is apparently too late to provide formal comment. I also firmly believe that Mr. Rosenfield knows of these organizations and the projects that each support. I am aware that Mr. Rosenfield has met several times with many people associated with these partnered organizations. He is certainly aware of one project in particular which clearly affects his Pawtucket Hydroelectric Project; namely the Blackstone River Fish Passage Project. So I may find myself somewhat concerned that this information may not have been supplied to LIHI as part of the application.”

Mr. Newton requests that “...LIHI consider withholding its re-certification unless or until Pawtucket Hydropower, LLC commit (in writing) to make all concerted efforts to work in partnership with the established organizations supporting fish passage at the Main Street Dam

(first, and the most important, dam needing restoration since it is located at the fresh and salt water interface of the river). Moreover LIHI should require Pawtucket Hydropower, LLC to commit to the design and construction of this project, which is also supported by FIRC, within the year. It is just as important that as we move forward to meet our power needs, we also demand that “low impact” means that hydroelectric power facilities are certified, sited, retrofitted or designed and constructed, to allow for ecofriendly operation in a manner that does not have a significant adverse impact on fish and otherwise restores and supports aquatic life and riverine systems and habitats.”

Mr. Newton closed by saying,

“Recognizing that the formal comment period has closed, it is my hope that you will respond to the questions I raise above. I also hope that your organization will take note that public funds are being expended, that in-kind services and volunteerism along the first four dams are mounting, and community and government support of the Fish Restoration Project is crystal clear and on record. Lastly, I hope you may consider, formally or informally, that restoration of many rivers, including the Blackstone, are well underway, and by instilling a sense of environmental integrity and empowering these facilities to comply with the Clean Water Act, a greater quality of low impact hydropower development may be realized.”

I called Mr. Newton to respond to the questions he had raised and asked if it was a good time to talk, and he said it was a fine time to talk. I described how we develop the distribution list from information gathered from the applicant and FERC mailing/service lists to notify stakeholders of the pending LIHI applications and the Public Comment period. We also publish notices in a monthly newsletter and post all this information on our website [www.lowimpacthydro.org](http://www.lowimpacthydro.org) I read the list of people we sent notices to either by email or snail mail and when I had completed reading the list there was a noticeable pause and Mr. Newton said that LIHI had certainly reached most of the people he was aware of. I also pointed out to him that we have a 60-day public comment period and that the Pawtucket Notice went out on April 12-13, 2009 not June 11, 2009. LIHI did not receive returned snail mail or unable to deliver messages for any of the notices we sent. It is unfortunate that your partners in Rhode Island who are normally astute at identifying the issues and active in communicating with each other on important subject matter which impacts your river, apparently missed this one.

LIHI understands that Mr. Newton is concerned about LIHI and whether we were “... aware of the BRWC/FOB, and its flagship project to bring anadromous fish back to the Blackstone?” LIHI certified this project about 5-years ago and became aware of the restoration efforts at that time from significant amounts of information provided by the state and the Applicant. LIHI in it’s decision letter for the Pawtucket Project provided the following non-standard condition:

*In recognition of concerns raised during the deliberation, the Board certified the Pawtucket Project LIHI certifies the Pawtucket Hydroelectric Project (project or facility) effective April 23, 2004 with the following supplemental conditions:*

1. *If the Rhode Island Department of Environmental Management (RIDEM) implements a plan for restoring anadromous fish to the Blackstone River and the facility contests a requirement to construct and operate any "...fish passage facilities and any other appropriate project modifications..." under Exemption Standard Article 2 (which incorporates the U.S. Fish and Wildlife Service's May 21, 1981 comment letter), LIHI certification of the Pawtucket Project shall be suspended subject to the project's continuing compliance with other requirements of LIHI certification.*

2. *If the resource agencies prevail in the dispute, and the project complies with the resource agencies' orders, LIHI will restore the project's certification.*

3. *If the resource agencies prevail in the dispute, and the project refuses to comply with the resource agencies' orders, LIHI will revoke the project's certification.*

4. *If the project prevails in the dispute and the resource agencies' recommendations are overturned by a legal proceeding, those recommendations will cease to be valid and LIHI will restore the project's certification subject to the project's continuing compliance with other requirements of LIHI certification.*

LIHI is very aware that public funds as well as private monies are being expended, that in-kind services and volunteerism along the first four dams on the Blackstone River are mounting, and community and government support of the Fish Restoration. LIHI agrees with you that Mr. Rosenfield has met with many people associated with these partnered organizations and LIHI believes that's why he was able to provide us with the names of people involved in the Blackstone River Fish Passage Project. I can assure you that Mr. Rosenfield has always been very forthcoming with providing information that we request. Lastly, I hope you may consider that the LIHI Board is composed of extremely knowledgeable river advocates who are very familiar with anadromous restoration efforts in New England and elsewhere.

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Date of Conversation:	June 16, 2009
Application Reviewer:	Fred Ayer
Person Contacted:	Frank Geary, Member of the Blackstone River Watershed Council (BRWC)
Telephone/email:	401-333-2123
Areas of Expertise:	Fishery restoration programs and §401 water quality issues

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Less than 24 hours after having the lengthy call with Mr. Newton, I received a phone call from Frank Geary. I knew from having spoken with other folks involved with the BRWC that Mr. Geary is a driving force behind the effort to restore fish to the Blackstone River. The first thing he wanted to talk about was that neither Russ Cohen or David Newton were as actively involved in the ongoing talks to get fish passage. Mr. Geary had spearheaded that effort for some time. He wanted to talk about the Applicant, who he felt was great to work with. Mr. Geary felt that a lot of progress had been made and that the negative comments from Russ Cohen and David

Newton were uncalled for. He suggested that since they were sitting behind desks most of the time they may not know what is going as well as folks that are “on the ground” do.

Date of Conversation: December 9, 2009  
Application Reviewer: Fred Ayer  
Person Contacted: Meghan Walter, hydraulic Engineer NRCS  
Telephone/email: 401-822-8822  
Areas of Expertise: Fish passage design

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Meghan is a hydraulic engineer who works for Natural Resource Conservation Service (NRCS) Her role in the Pawtucket fish passage issue is overseeing the fish passage design and managing the permitting effort. Charley Rosenfield is her “client” since he has signed a contract with the NRCS. Meghan said the fish passage design is nearly 95% complete. She explained that the primary fish passage design was being done by the USFWS specifically Dick Quinn. My understanding of the relationship between NRCS and the Applicant is that NRCS is providing funding to design and build the fishway, and that the Applicant is also providing funding for a portion of the design and construction costs as well as annual operation and maintenance costs. Meghan was aware that there were some bad feelings between the Applicant and some of the stakeholders, but she was very careful how she discussed this issue and what she said. My sense is that the fish passage will get constructed (next summer according to Meghan) in 2010 and the Applicant has committed to meeting its funding obligations. Overall I thought Meghan provided an unbiased view of what was going on.

Date of Conversation: January 5, 2010  
Application Reviewer: Fred Ayer  
Person Contacted: Melissa Grader, USFWS  
Telephone/email: 413-548-9138  
Areas of Expertise: Fish passage

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Melissa was familiar with the project and described what she saw for changes since the original LIHI certification had been issued 5-years ago. The real change is that five-years ago there was a fish passage plan, today the fish passage design is nearly complete with construction planned for 2010. Melissa pointed out that the NRCS was funding design and engineering and construction. The Applicant was contributing funds to the fish passage, but a significant amount of the funds are public money. I asked Melissa why the USFWS had not taken a more formal role in the fish passage effort and she said the USFWS wasn’t comfortable with public money being used to build mitigation measures for a private company. However, she also said that the USFWS was actively involved in overseeing the engineering and design and the Applicant had agreed to the operational requirements that the USFWS had asked for. As long as the Applicant continues to comply the USFWS is supportive of LIHI certification for the Pawtucket Project.

Date of Conversation: January 5, 2010

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Application Reviewer: Fred Ayer  
Person Contacted: Veronica Masson, Freshwater and Anadromous Fisheries, Div. of  
Fish and Wildlife, Management, Rhode Island Dept. of  
Environmental Management  
Telephone/email: 401-789-0281  
Areas of Expertise: Fish passage

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Veronica was very familiar with the Pawtucket Project and essentially confirmed what Melissa Grader said about the project. Her view is that the design is nearly complete and that construction should start this year. To see a signed version of the fish passage Memorandum of Agreement click on *Pending Applications* and choose *Pawtucket Project* and click on the link, scroll to the bottom of the page and under the *Files* section open this pdf : [Pawtucket DEM MOA agreement signed.pdf](#)