

## LOW IMPACT HYDROPOWER INSTITUTE

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### MEMORANDUM

To: LIHI Governing Board  
From: Fred Ayer  
Date: July 21, 2006

Re: **Application for Low Impact Hydropower Re-Certification  
Island Park Hydroelectric Project  
Henry's Fork of the Snake River, Idaho (FERC #2973)**

#### Introduction

This memo reviews the renewal application for Low Impact Hydropower Certification by the Fall River Rural Electric Cooperative (FRREC). The FERC Project Number is 2973 and the LIHI certification number is 00002.

#### Project Summary

*Facility location:* Henry's Fork of the Snake River, Idaho  
*Installed capacity:* 4.8 MW  
*Year licensed by FERC:* 1987  
*Applicant:* Fall River Rural Electric Cooperative (FRREC)  
*Date of original certification:* June 7, 2001  
*CERTIFICATION SUSPENDED because of flow reductions:* December 19, effective September 17, 2001  
*Date of certificate reinstatement:* March 11, 2005  
*Date certification expires:* June 7, 2006

#### Background:

The LIHI issued the initial Low Impact Certificate for the Island Park Project on June 7, 2001.

On December 19, 2001, The LIHI Governing Board suspended the LIHI Low Impact certificate for the Island Park Project because of the Project's inability to meet required flow releases.

Because of the severe drought conditions in the Pacific Northwest in 2001, the Island Park Reservoir was drawn very low (The Island Park Dam and Reservoir are operated by the U.S. Bureau of Reclamation). The reservoir must be refilled before April 1 in order to meet irrigation contract and other requirements. As a result, flow releases at the Facility were reduced starting on September 17, 2001 and were reduced again starting on October 23, 2001.

FRREC made every effort within its control to meet all conditions of its certification. However, given the drought conditions, and the ultimate decision making authority by the U.S. Bureau of Reclamation, and the Fremont-Madison Irrigation District, the Facility was unable to meet the flow requirements of the certification.

The Low Impact Hydropower Institute Governing Board met on December 19, 2001 to review the Island Park flow situation. The Governing Board concluded that the reduction in flows was a significant violation of the certification standards. Ordinarily, a determination of a "significant" violation would require, among other things, that LIHI revoke the certification, and bar the FRREC from re-applying for 5 years (see Part V, Section IV of the certification program).

However, the Board concluded that revocation is not appropriate in this case. Factors considered by the Board were that the flow violation is based in part on natural circumstances and was not willfully taken by Fall River for economic gain; that the resource agencies have not challenged the flow reductions to date, but found them acceptable under the circumstances; and that you have acted in good faith in notifying us and trying to address the problem.

Thus, the Governing Board ordered that the certification of the Island Park Facility, Certificate No. 00002, be suspended effective the date the flow releases first fell below required levels (September 17, 2001), pending resumption of the required flow levels.

The Board went on to request that FRREC notify LIHI when they expect the required flow releases to be resumed, so that LIHI staff could convene the Governing Board to make a decision about lifting the suspension.

On March 8, 2005, FRREC's consultant, Brent Smith, notified LIHI staff of the resumption of the required flow releases and requested, on FRREC's behalf, that the suspension be lifted.

LIHI staff independently confirmed that the required flow release had resumed, and brought the reinstatement request to the LIHI Governing Board who voted unanimously that effective March 11, 2005, the Low Impact Hydropower Certificate, No. 00002, for the Island Park Project was reinstated.

## **Facility Description**

Island Park Dam, Reservoir and Hydroelectric Plant are located on the Henry's Fork, a tributary of the Snake River in Idaho, approximately 0.4 miles upstream of the confluence with the Buffalo River. The project is located in eastern Idaho within the Island Park District of the Targhee National Forest; the reservoir covers 7,794 acres within the Forest. The headwaters of the Henry's Fork River begin 31 miles above the dam, at Henry's Lake.

The Island Park Hydroelectric Project was constructed between September 1992 and July 1994 on the existing (USBR) Island Park Dam. The Island Park Dam was constructed in 1939 by the USBR. The Island Park Hydroelectric Project is a FERC-licensed run of the river project using waters diverted from the Island Park Reservoir under the direction of the Fremont-Madison Irrigation District and the USBR. Fall River owns the Island Park Hydroelectric Project.



## **Re-Certification Analysis**

The application for re-certification of the Island Park Project stated that the Project remained unchanged from the project certified by the LIHI Board. I was able to confirm this in discussions with resource agency staff familiar with the project. My conversations with resource agency staff indicated that, (FILL)

; the applicant has improved its ability to comply with requirements and is now meeting its environmental objectives.

Changes to LIHI criteria modifications, particularly watershed protection, do not affect the original certification of the project by the Board. I base this on the language below from the original certification report prepared by the application reviewer in 2000, which I believe clearly meets our latest criteria D.<sup>4</sup>

## **Recommendation**

Based on the positive feedback from resource agencies (See Contact Summary) and confirmation that there have not been changes or problems, I believe the Island Park Project continues to meet the LIHI criteria and should be recertified as Low Impact.

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<sup>1</sup> Is the facility in compliance with both state and federal resource agencies recommendations in a license approved shoreland management plan regarding protection, mitigation or enhancement of shorelands surrounding the project.

## Low Impact Certification Criteria

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### A. Flows:

#### Criteria

*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 for both the reach below the tailrace and all bypassed reaches?*

**YES.**

The FERC license contains ramping rate requirements (FERC 1988, FERC 1995, FERC 1997). Subsequent amendments to the FERC ramping rate license article have been approved by federal and state agencies. The most recent modifications to the FERC ramping rate amendment occurred in 1997; the USFS, USFWS, and IDFG all concurred with the modifications (USFWS 1996, USDA Forest Service 1996, IDFG 1996). The ramping rates reflect the most protective rates submitted by any resource agency in license proceedings.

The FERC license contains no requirements for minimum flows. FERC lacks the authority to require minimum flows from the USBR, so this project does not allow for any alteration in flows for the purpose of protecting downstream resources.

**PASS.**

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### B. Water Quality:

#### Criteria

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**

The state water quality certification conditions were incorporated into the FERC license. FERC License Articles 106, 107 and amendment, 129, 130, 401 and amendment, and 402 and amendment all pertain to water quality (FERC 1988, 1992, 1995b). Articles 107, 401 and 402 have to do with continuing operation of the project to meet water quality criteria. The most recent recommendations from the agencies were in 1994 and 1995 (USFWS 1994, 1995; USDA



Forest Service 1995; IDFG 1995). On 8/2/95 FERC approved a Water Quality plan filed 5/17/94, and supplemented 3/10/95 by the applicant (FERC 1995b).

***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?*

**NO.**

IDEQ confirmed that the facility area and downstream reach of the Fall River meet state water quality standards (IDEQ 200 **FILL** ).

***If no, go to B4 for post-2001***

- 4) In order to maintain Low Impact Hydropower certification in the future, the Facility owner/operator must implement by January 1, 2002, a program to monitor in a periodic basis – and to make that monitoring available to the state and the public – water quality parameters that may be affected by the facility.

The applicant did not address this question, but because the information is not required at this time, the applicant passes criteria (B) Water Quality.

**PASS.**

### **Discussion:**

The licensee seems to be in compliance with Water Quality conditions in its FERC license and has made a good faith effort to address the temperature and DO issues in its releases from the powerhouse. One of the benefits of the rubber dam that Island Park added to the USBR dam is that during spill flows it allows control of the water temperature entering the river below the dam. In this way, the licensee can manipulate water temperatures to better enhance the downstream fishery habitat.

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### **C. Fish Passage and Protection:**

#### **Criteria**

- 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?*

There are no mandatory fish passage prescriptions.

IDFG and USFS confirmed that there are no anadromous and catadromous fish in the project area due to natural barriers (falls) downstream of the project (USDA Forest Service 2000b; IDFG 2000b **UPDATE**).

The answer to C1 given by the applicant is yes, but technically it is N/A since there are no mandatory fish passage prescriptions. However, questions C2 through C4 apply only to anadromous and catadromous fish, and therefore do not apply to this project.

**N/A = 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)?

**NO.**

**No = Go to C3**

- 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?*

**N/A**

**N/A = Go to C4**

- 4) *If C3 was not applicable:*

- a) *Are upstream and downstream fish passage survival rates for anadromous and catadromous fish at the dam each documented at greater than 95% over 80% of the run using a generally accepted monitoring methodology? Or*
- b) *If the facility is unable to meet the fish passage standards in 4.a., has the applicant demonstrated, and obtained a letter from the U.S. Fish and Wildlife Service or National Marine Fisheries Service confirming that demonstration, that the upstream or downstream fish passage measures, if any, at the facility are appropriately protective of the fishery resource?*

**N/A.**



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

The applicant answered C5 as yes, due to fish passage provided by the USBR outlet from the dam, but because the project facility providing passage is owned by the USBR and is not considered part of this facility, we would recommend N/A as the appropriate answer.

***If yes or N/A, 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?*

**YES.**

FERC License Article 128 and amendment required agency review of fish screen design and operation (FERC 1988, FERC 1992a). In the initial FERC license application review, USFS and USBR submitted 4(e) conditions requiring the applicant to consult with USFS and USBR on the plans for fish screen design and operation; these conditions were included in the FERC license. The applicant has complied with FERC and agency recommendations on the design and operation of the fish screen (USFS 2000c; USFWS 2000b; FERC 1999a; USFS 2000a; USFWS 1993; IDFG 1993).

**PASS.**

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

### **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?

**YES.**

The following FERC license articles pertain to protection of the watershed:

Article 104: Annual consultation with USFS to ensure protection of natural resource values;  
Articles 108 and 131: Erosion control plans; Article 119: Revegetation Plan; Standard L-Form  
Article 19: Prevent soil erosion on project lands (FERC 1988).

IDFG, USFS, and FERC inspections concur that the applicant has complied with these articles (USFS 2000; IDFG 2000a; FERC 1999a)

*Go to D2 for post-2002.*

- 2) In order to maintain Low Impact Hydropower certification in the future, the Applicant must answer yes to any one of the following questions by January 1, 2002.

The applicant did not address this question, but because the information is not required at this time, the applicant passes criteria (D) Watershed Protection.

PASS.

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E. Threatened and Endangered Species Protection:

Criteria:

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

YES.

In the EIS prepared for the installation of a rubber dam on the USBR dam spillway, the following species are discussed: *Endangered*-Bald Eagle, Grey Wolf; *Threatened*-Grizzly Bear (USBR 1995; USFWS 2000b).

*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?

USFWS referenced the appropriate recovery plans when providing mitigation measures for the Biological Assessment (USFWS 2000b). No additional recommendations for the protection of endangered species have been requested (USFWS 2000a, FERC 1999a)

*If yes or N/A, 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?

N/A. The Facility has not received authority to take a listed species.

*If N/A 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.



A Biological Assessment for the Bald Eagle was prepared at the request of the USFWS as part of the EIS. The BA concluded that the project would have no adverse effect on Bald Eagles. The BA also concluded there would be no adverse effect on the Grey Wolf and Grizzly Bear. Recent conversations with resource agencies concurred that there are no negative effects on listed species from Project operation (USBR 1995; USFWS 2000a; USFS 6/27/00; IDFG 6/27/00)

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?

YES.

FERC license article 405 requires the applicant to consult with the State Historic Preservation Office before conducting any land disturbing activities, and describes protocol for action if any historic or archaeological properties are identified (FERC 1988).

FERC inspections and IDFG concur that the applicant has complied with this article (FERC 1999a; IDFG 2000a).

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?

YES.

FERC license Articles 105 and 133 required the applicant to prepare a plan for accommodation of project-induced recreation (FERC 1988). FERC inspections and USFS concur that the applicant has complied with these articles (FERC 1999a, USFS 2000a, USFS 2000b).

*If yes go to G3.*

- 2) Does the Facility allow access to the reservoir and downstream reaches without fees or charges?

YES.

FERC inspections and USFS concur that the applicant has complied with this requirement (FERC 1999a, USFS 2000a, USFS 2000b).

PASS.

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H. Facilities Recommended for Removal:

Criteria:

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 USBR dam (USDA Forest Service 2000b; USBR 2000b; USFWS 2000b; IDFG 2000b; nothing identified in FERC files review).

PASS.

FACILITY IS LOW IMPACT



## RECORD OF CONTACTS

**Note:** I had a bit of difficulty connecting with the agency/interest group contacts until August 7, when I spoke with three of them (two agency and one interest group) in one day. I never spoke directly with Deb Mignogno, USFWS, other than to trade voice mails. However, her voice mails relayed several pieces of information: the USFWS was satisfied with the project and FERC's handling of ESA issues in the environmental report; her involvement in the project was minimal and she deferred to the USFS; and, she was retiring! I had some concerns about the small list of agency contacts and asked each of the contacts that I spoke with if there others that should be contacted, they all said no that the list I was using was complete and they also confirmed that the USFWS had been active in the Buffalo relicensing but had deferred to the USFS as far as compliance was concerned for both the Island Park and Buffalo Projects.

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Date of Conversation: August 7, 2006  
Application Reviewer: Fred Ayer, Executive Director  
Person Contacted: Gary Vecellio, Staff Biologist, IDFG  
Telephone/email: 208-525-7290  
Areas of Expertise: Fish, flows, water quality

Gary said that he was very familiar with the Island Park Project and that as far as he knew nothing had changed about the project operation. He was not aware of any noncompliance issues other than the flow problem which caused suspension of the original LIHI certificate issued in 2001. He believed that the Island Park Project passed the LIHI criteria and he said that the applicant was very responsive good to work with. He said he was also very involved in the Buffalo Project FERC relicensing and pointed out that the projects were physically close to each other. He supported LIHI recertification of the Island Park Project.

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Date of Conversation: August 7, 2006  
Application Reviewer: Fred Ayer, Executive Director  
Person Contacted: Jim De Rito, Conservation Director, Henry's Fork Foundation  
Telephone/email: 208-652-3567  
Areas of Expertise: Water quality, fish, angling and flows

Jim and I had spoken when the Island Park LIHI certificate was reinstated in 2005. Prior too our call, Jim had reviewed the LIHI criteria and felt that the Island Park project continued to meet the Low Impact criteria. Jim regularly reviewed the water quality and flow monitoring reports prepared by the applicant and felt they were all in line with the license terms and conditions. Jim supported LIHI certification. Jim also confirmed that the list of contacts that the applicant had provided us was the correct list. Jim said that the applicant and their consultants were good people to work with.

Date of Conversation: August 7, 2006  
Application Reviewer: Fred Ayer, Executive Director  
Person Contacted: Lee Mabey, USFS  
Telephone/email: 208-557-5784  
Areas of Expertise: Fish, flows, water quality, etc.

Lee confirmed that the USFS was very involved with the Island Park Project and had been for many years---Lee had personally been involved for ten years. Lee was very familiar with the project details. He said that the applicant always did what was needed to do to meet the terms and conditions of the license and LIHI certification. The improvements made at the facility continue to be a benefit to water quality. The fish screens have been very effective—in fact so effective that they have altered some of the angling success to the chagrin of the anglers. Lee was not aware of any non-compliance other than the flow issue which caused the LIHI Board to suspend certification.

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Date of Conversation: July 27, 2006  
Application Reviewer: Fred Ayer, Executive Director  
Person Contacted: Deb Mignogno, USFWS  
Telephone/email: 208-237-6975  
Areas of Expertise: ESA, fish, flows, etc.

Although I did not speak with her directly, we exchanged messages and she informed me of the role of the USFWS (mostly during licensing/relicensing) and their deferral to the USFS for compliance. Deb is retiring or retired the end of July.