APPLICATION REVIEW FOR
LOW IMPACT HYDROPOWER INSTITUTE CERTIFICATION
of the
ASHTON-ST. ANTHONY PROJECT NO. 2381

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Application Reviewer: Patricia McIlvaine

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1.0 INTRODUCTION AND OVERVIEW

This report reviews the application submitted by PacifiCorp Energy (PacifiCorp or Applicant) to the Low Impact Hydropower Institute (LIHI) for Low Impact Hydropower Certification for the Ashton-St. Anthony Hydroelectric Project. The Ashton-St. Anthony Project, located on the Henry's Fork of the Snake River (Henry's Fork), Fremont County, Idaho, is currently licensed by the Federal Energy Regulatory Commission (FERC) as Project Number 2381. The Henry's Fork watershed in eastern Idaho and western Wyoming encompasses 1.7 million acres and over 3,000 miles of rivers, streams and canals. The river originates from the outlet of Henry's Lake, located in the Continental Divide Mountains. The Upper Henry's Fork sub-basin, located in eastern Idaho, encompasses 1,068 square miles, including 30 square miles in Wyoming and 60 square miles in Yellowstone National Park. The northern extent of the sub-basin is bounded by the continental divide, which also delineates the boundary between Idaho and Montana. The sub-basin is located within the Greater Yellowstone Ecosystem and possesses many of the unique geological, scenic, recreational, and wildlife attributes for which Yellowstone National Park is valued. The majority of the sub-basin is managed by the U.S. Forest Service. The Ashton-St. Anthony Project is located at river mile 45 of Henry's Fork, forms the southern boundary of the Upper Henry's Fork sub-basin. After exiting the sub-basin, the Henry's Fork continues in a southwesterly direction for 79 miles through the Lower Henry's Fork sub-basin before reaching its confluence with the South Fork of the Snake River.

Diversions from Henry's Fork and its tributaries are substantial, primarily for irrigation. Although most volume is diverted from April to September, diversions occur year-round. River flows in Henry's Fork are regulated by releases from Henry's Lake and Island Park Reservoir, both upstream from the Ashton Project. A contract executed in 1935 by the then owner of the

Ashton-St. Anthony Project with the U.S. Bureau of Reclamation, Fremont-Madison Irrigation District and the City of Idaho Falls, Idaho, requires that the operation of the Ashton-St. Anthony Project does not interrupt, interfere or otherwise fluctuate irrigation releases from the Island Park Reservoir during irrigation season. This agreement remains in effect.

Topography in the southwest and western portions of the basin is relatively smooth, while the northern and southeastern portions are more mountainous with heavy timber cover. The Ashton-St. Anthony Project is located in a sparsely populated, semi-arid area in which the dominant land uses are agriculture and outdoor recreation.

PacifiCorp owns and operates the Ashton-St. Anthony Project, which consists of two separate developments: Ashton and St. Anthony. The Ashton development is located approximately 13 miles upstream of the St. Anthony's development, which is located on the Henry's Fork and on the Egin Irrigation Canal (EIC), a diversion of the Henry's Fork.

The Ashton development portion of the project occupies 0.39 acres of federal land administered by the Bureau of Land Management. PacifiCorp is seeking LIHI certification only for the Ashton development portion of the Project, and as such, this review is focused primarily on the features and environmental, recreational and cultural resource protection aspects of the Ashton development (hereafter referred to as the Ashton Project). One exception is assessment of compliance with Criteria C which addresses fish passage and protection. As discussed in Section 2.3 of this report, this assessment also discusses fish passage and protection issues at St. Anthony as the requirement for fish passage installed at this development was initially recommended, in part, to mitigate for potential fisheries losses at the Ashton Project. The Ashton Project is located approximately 13 miles upstream of the St. Anthony development. The St. Anthony development has not operated since 2003 due to an outage of the generating unit. This development is being considered for sale or decommissioning by PacifiCorp.

1.1 Project and Site Characteristics

The Ashton Project is comprised of a 56.6 -foot-high, 226-foot-long, earth and rock-filled dam that has a downstream slope covered with roller compacted concrete and an upstream slope stabilized by additional rock fill. Based on the Environmental Assessment developed for the 1987 relicensing of the Ashton-St. Anthony Project, the Ashton dam was constructed in 1917 and underwent major rehabilitation work in 1958. The crest elevation of the dam is 5156.6 msl. There are two- foot-high flashboards on the dam crest to prevent spillage from reservoir wave action and an 82- foot-long reinforced concrete spillway surmounted by six 10-foot-high radial gates. The reservoir has a surface area of 404 acres, with a gross storage capacity of 9,800 acre-feet and a usable storage capacity of 3,988 acre-feet at normal water surface elevation (5156.6 feet msl). The development features a reinforced-concrete powerhouse located at the right bank, with integral intakes controlled by vertical slide gates and containing two generating units, each with a nameplate rating at 2,000 kW, and one generating unit rated at 2,850 kW. Non-reservoir facilities occupy approximately 3.5 acres.

In consultation with FERC, PacifiCorp plans to rehabilitate Ashton Dam in 2010-2012 to mitigate seepage and piping (i.e., internal erosion) risks posed by a deteriorating upstream silt core within the dam. The rehabilitation (hereafter referred to as the Dam Remediation Project) will involve excavating and reconstructing a portion of the upstream embankment. Other features of the Dam Remediation Project include replacing the headrace retaining wall, replacing the concrete crest structure, and adding a concrete overlay to an unprotected portion of rockfill between the spillway and the powerhouse. Because of the significance of the Dam Remediation Project, where appropriate, issues identified for it that are associated with LIHI certification criteria are discussed.

PacifiCorp operates the Ashton Project in an instantaneous run-of-river mode. As previously identified, flows in Henry's Fork are regulated by releases from Henry's Lake and Island Park Reservoir, located upstream. The average annual generation of the facility is 36.9 Gwh, based on the past 30 years (including 2008). The Project has a 46/2.3-kV step-up transformer and electricity is conveyed to the substation via a 133-foot-long, 46-kV transmission line. Run-of river operations will be maintained during the planned rehabilitation of Ashton Dam except

during drawdown and refill periods. A low-level outlet tunnel will be installed to provide river diversion during construction. The outlet tunnel will be constructed through the right abutment bedrock and will include a vertical shaft housing slide gates for flow control. Operations following the remediation project will not change from current operations.

1.2 Regulatory History

On December 19, 1977, FERC issued a license to the Utah Power and Light Company (UL&P) for the continued operation of the Ashton-St. Anthony Project. UP&L filed an application for renewal of this license on December 31, 1984, and supplemented the application on July 24, 1985 with an application showing increased generation capacity. Modifications addressed by this re-licensing effort included replacement of an existing 1,800 kW generator unit with a 3,400kW unit at the Ashton development and installation of a fish passage at the St. Anthony development. The new license for the Ashton-St. Anthony Project was issued on August 3, 1987, with an effective date of January 1, 1988, for a 40 year period. (A copy of this License Order was submitted by PacifiCorp as part of its LIHI application, and therefore has not be attached to this report.) Issues raised by Resource Agencies during this re-licensing process are discussed under the specific LIHI criteria discussions.

Pacific Power changed its name to PacifiCorp in 1984. PacifiCorp merged with UP&L in 1989 with a parent company name of PacifiCorp. As a merger, PacifiCorp determined there was no need to modify the name on the FERC license, however, since 1989, the PacifiCorp name is now used for all filings and Orders. PacifiCorp was acquired by MidAmerica Energy Holdings Company, but still operates as PacifiCorp.

A review of the FERC eLibrary database, and consultation PacifiCorp, indicated that since license issuance in 1987, very few schedule extension requests or variances from license conditions have been made. The only noteworthy temporary variances from license conditions have been associated with Article 401, operation in a run-of-river mode. These have been associated with reservoir drawdown events that will be needed for inspection and repair

activities of the Dam Remediation Project. See *Section 2.1, Criteria A - River Flows* for further discussion.

In the past ten years, since 2000, only a limited number of minor deviations from license conditions, all associated with Article 401 "instantaneous run-of-river operation" and headpond elevations requirements, have occurred. None of the deviations were found by FERC to constitute license violations. While records between 1988 and 1999 where not extensively reviewed, one flow deviation event, which occurred in 1991, was found to be a violation of Article 401. These events are further discussed in *Section 2.1, Criteria A - River Flows*.

Given the limited number of extension and variance requests, and the limited number of license deviations, PacifiCorp appears to have demonstrated conscientious attention to the environmentally related issues associated with the Ashton Project FERC License.

1.3 Public Comment

LIHI received comments on PacifiCorp's application for certification for the Ashton Project from the Henry's Fork Foundation, Inc (the Foundation). A copy of this letter, dated February 25, 2010, is contained in Appendix A. The Foundation focuses on protection of the fisheries, wildlife and aesthetic qualities of the Henry's Fork watershed. The letter acknowledges that the "Ashton Dam facility may meet the eight certification criteria", however the Foundation recommends that the certification review of the project be delayed until after completion of the Dam Remediation Project scheduled for 2010 - 2012. The major reason given for the delay recommendation is the concern of sediment release during the multiple planned significant reservoir drawdowns, and the impacts that could result. Comments were also provided in the areas of River Flows, Water Quality, Fish Passage and Protection and Recreation. As noted in Section 4.0, *Record of Communications,* a discussion was held with Mr. Stephen Trafton, Executive Director of the Foundation, to obtain clarification of some of the comments. Most of his concerns involve river flows; clarifying information on the Foundation's comments is presented under the Section 2.1 *Criteria A - River Flows* discussion.

2.0 CRITERIA ASSESSMENT

The Low Impact Hydropower Institute certifies those hydropower facilities that meet its eight criteria:

2.1 Criteria A - River Flows

***Goal**: The facility (dam and powerhouse) should provide river flows that are healthy for fish, wildlife, and water quality, including seasonal flow fluctuations where appropriate.*

***Standard**: For in-stream flows, a certified facility must comply with resource agency recommendations issued after December 31, 1986, for flows. If there were no qualifying resource agency recommendations, the applicant can meet one of two alternative standards: (1) meet the flow levels required using the Aquatic Base Flow methodology or the "good" habitat flow level under the Montana-Tennant methodology; or (2) present a letter from a resource agency prepared for the application confirming the flows at the facility are adequately protective of fish, wildlife, and water quality.*

PacifiCorp's Ashton Project is in substantial compliance with resource agency recommendations issued after December 31, 1986 regarding flow conditions for fish and wildlife protection for all reaches. Resource agency recommendations regarding flow conditions are contained in Article 401 of the FERC license issued in 1987, which requires the Ashton Project to operate in an "instantaneous run-of-river" mode and shall minimize the fluctuation of the reservoir surface elevation by maintaining a discharge from the reservoir so that the flow in Henry's Fork, as measured downstream from the powerhouse tailrace, approximates the instantaneous sum of inflows to the reservoir. Temporary modifications are permitted if required by operating emergencies beyond the control of PacifiCorp, and for short periods upon mutual agreement between PacifiCorp and the Idaho Department of Fish and Game (IDFG). A Section 401 Water Quality Certification (WQC) was issued by the Idaho Department of Environmental Quality (IDEQ) in May 1985 (see Appendix C). Recommendations for ramping rates and minimum

flows made prior to 1986 by IDFG were rendered unnecessary by the run-of-river mode requirement.

Review of FERC's database indicated that in the approximate past ten years, between January 2000 through August 6, 2010, there were limited deviations from the required "run-of-river" requirements. FERC did not find these deviations to be a violation of the license. These events are summarized below:

- April 14, 2002 - Flow was reduced from 1,390 cubic feet per second (cfs) to 320 cfs for a period of about one hour, at which time original flow was restored. A power outage caused shutdown of the operating unit after normal working hours, which resulted in the loss of discharge, until an operator arrived on site to manually open a spill gate. Currently, a bypass valve automatically opens to restore some flow. In part in response to concerns raised by IDFG, PacifiCorp is investigating ways to automate a spill gate to open when power is lost to minimize future event reoccurrence.
- A deviation in reservoir elevation due to a computer malfunction occurred on 7/23/02 that was reported to FERC in a 3/26/03 letter to FERC that summarized Article 401 Reservoir and River Flow Data.
- There were seven minor deviations in reservoir elevations that occurred in winter-spring of the 2002-2003 that were reported in a Reservoir and River Flow Data summary letter from PacifiCorp to FERC dated 3/15/2004. The PacifiCorp stated that no comments from agencies or the general public were received on these incidents and given the minor reservoir elevation variations outside the deadband, PacifiCorp believed that no adverse effects on the environment or irrigation system deliveries downstream occurred. A system upgrade in 2008 has helped to better manage reservoir elevation fluctuations.

FERC data review for January 2000 through August 6, 2010 also showed that when reservoir drawdown was required, appropriate consultation with IDFG was implemented, and FERC approval received.

In 2001, the Henry's Fork Foundation, Inc, (the Foundation) raised questions regarding fluctuating flows from the Ashton Project which did not seem to be tied to releases from the Island Park reservoir, which generally is the major source of inflow to the Ashton reservoir. Through review of data provided by PacifiCorp, FERC determined that the fluctuating flows were caused by unusually changing flows from three other inflow sources (Buffalo River, Warm River and Robinson Creek) and not operation of the Ashton project.

One noteworthy flow violation occurred on March 14, 1991. This event occurred during a period when a reduction in flow was implemented, as required for maintenance on a downstream diversion structure. This temporary reduction in flow was approved by FERC. However, operational error resulted in flow reduction below the permitted level for a period of five hours, resulting in fish stranding and mortality. Negotiation between FERC, IDFG and PacifiCorp resulted in a Compensatory Mitigation Plan in the amount of $10,000 for fisheries research, approved by FERC on August 23, 1995 (see Appendix B). Similar events have not reoccurred.

Regarding river flows, PacifiCorp appears, to date, to have undertaken the required agency consultations and has sought required approvals, for the Dam Remediation Project. FERC Order issued July 12, 2010 (contained in Appendix B) approves temporary modification from Article 401 requirements for the upcoming remediation project by allowing three reservoir drawdowns and refills between 2010 and 2012. This Order discusses the recommendations made by various Resource Agencies and the Foundation as part of that licensing process. Mitigation through re-scheduling of key drawdown periods was adopted by PacifiCorp to address USFWS concerns regarding potential impacts to migratory waterfowl from low reservoir elevations. This agreement is noted in PacifiCorp's letter to USFWS dated February 12, 2010 (see Appendix C). Consultation with Mr. Ty Matthews of the USFWS on August 10, 2010 confirmed that the schedule modification addresses these concerns. IDFG recommendations regarding use of USGS gage data (assuming the gage is working) to measure the Project's inflow and a 30 day rather than one week notification of drawdown and refill events was adopted by FERC in this Order. (Fisheries and water quality issues addressed in this Order are discussed under the applicable Criteria discussions.)

The letter received by LIHI from the Foundation addressed several concerns regarding flows downstream from the Ashton Project. The discussion held with Mr. Stephen Trafton confirmed that the concern of flow loss resulting from unit shutdown was due to power loss related to the 2002 event as well as more recent events. His primary concern with fluctuating flows was more of a safety issue, with the possibility of stranding fisherman, and loss of opportunity for fisherman to wade the river when flows are ramping up quickly. He stated rapidly changing flows may cause some potential harm to fisheries resources, although he is unaware of any fish stranding reports from low flows. Low flows could cause damage to Brown Trout egg nests recently deposited. He stated he believes natural flows would not fluctuate so quickly and abruptly.

A. Flows – The Facility is in Compliance with Resource Agency Recommendations issued after December 31, 1986, as specified in the FERC license regarding flow conditions for fish and wildlife protection, mitigation and enhancement for both bypass reaches. FACILITY PASSES.

2.2 Criteria B - Water Quality

Goal: *Water quality in the river is protected.*

Standard*: The water quality criterion has two parts. First, a facility must demonstrate that it is in compliance with state water quality standards, either through producing a recent (after 1986) Clean Water Act Section 401 certification, or demonstrating compliance with state water quality standards (typically by presenting a letter prepared for the application from the state confirming the facility is meeting water quality standards). Second, a facility must demonstrate that it has not contributed to a state finding that the river has impaired water quality under Clean Water Act Section 303(d) (relating to water quality limited streams).*

Although the Ashton Project is in compliance with the conditions in the Section 401 WQC issued by Idaho Department of Environmental Quality (IDEQ), this WQC was issued in May 1985 (see Appendix C). As such, LIHI criteria (B.1.b) require that an applicant to LIHI demonstrate "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."

Both narrative and quantitative Standards have been adopted by Idaho for Henry's Fork, with the narrative designations as:

- Aquatic Life (Cold Water Communities, Salmonid Spawning)
- Recreation (Primary Contact Recreation)
- Domestic Water Supply
- Special Resource Water.

The IDEQ has classified the Henry's Fork immediately above and below the Ashton Project to be a "Category 3 - a Water of the State with insufficient data and information to determine if any standards are attained." Currently no "Tier 1" data sources indicate an impairment of beneficial uses. Per IDEQ, Tier 1 data sources may be qualitative in nature, have no or limited QA/QC and may be anecdotal in nature.

With the exception of limited USGS data, water quality data collected for project relicensing in the early 1980s constitutes the bulk of available water quality data in the Project area. The following is a summary of existing information as provided by PacifiCorp. Consultation with the IDEQ did not provide any addition information.

The Ashton development, as a run-of-river facility, has a short retention time (1.6 to 4.5 days1); thus project operations have little capability to affect water temperature. The current IDEQ water temperature standard includes a spawning criterion of 13°C (Maximum Daily Maximum Temperature, MDMT) and a 22 °C non-spawning criterion (coldwater) MDMT. Instantaneous data, although not directly comparable to these standards, provide a general indication of river

temperatures downstream of the Ashton development. Water temperature in July 1981 reported in the Project license Exhibit E for Henry's Fork at St. Anthony (USGS Gage 13050500) was 13 °C. More recently, instantaneous summer readings (July or August) at USGS Gage 13046000 (Henry's Fork near Ashton, 0.8 mi. downstream of the powerhouse) ranged from 16-19 °C (total of five readings in 1994, 1996, 1997, and 1998).

Reservoir surface temperatures increase 1-3 °C from inflow to the dam, a distance of approximately four miles.1 Profile data collected for project relicensing (temperature, dissolved oxygen (DO), pH, and conductance from near surface to near bottom in June, and from surface to bottom in August, 1986) were within ranges suitable for salmonids. Summer intake temperatures near the dam were approximately 16-17 °C. The approximately 12-m deep Ashton Reservoir does not stratify, and DO remained above 6 mg/l from surface to bottom throughout the summer period. These measurements meet the current IDEQ requirement that waters designated for cold water aquatic life exceed six (6) mg/l DO at all times.

The Henry's Fork River, including reaches downstream of the dam, continues to support a destination wild trout fishery given abundant and diverse hatches of aquatic insects. This is a strong indication that water quality is good and supports the goals of the standards.

On August 4, 2010, Mr. Troy Saffle of IDEQ stated that the IDEQ is not currently in a position to implement a sampling program for waters classified as Category 3. He stated that based on anecdotal information provided by the IDFG, the Henry's Fork in the areas above and below the Aston Project appears to support the definition of Cold Water Fisheries. The existing populations of cold water species is evidence of suitable dissolved oxygen and temperatures. He also stated that he does not believe that the regular operation of Ashton Project is negatively affecting the water quality.

In the Foundation's February 25, 2010 letter to LIHI, it is reported that the water quality in this area "likely meets state water quality standards based on the existence of a blue-ribbon trout

stream". They also suggest that a requirement for a limited program of water quality monitoring and reporting be required of the Ashton Project as part of the current LIHI certification process. In another letter dated January 28, 2010 to PacifiCorp (contained in Appendix C), the Foundation reports that the fishing industry in the section of the Henry's Fork between the Ashton Dam and Town of St. Anthony, accounts for 25% of the angler use on the Henry's Fork, and that sport fishing on the entire Henry's Fork contributes nearly $27 million dollars to the Fremont County economy. This information appears to support an assumption that the water quality in this section of Henry's Fork is clearly very good, likely meets the established Standards and that beneficial uses have not been impaired by the Ashton development.

Consultation with Dan Garren of IDFG indicated that the cold water fisheries populations are robust in this area of Henry's Fork, and clearly serve as an indicator of water quality meeting the intended beneficial uses of the river. During the hottest summer months, fish do become less active likely due to warm water temperatures, although he is not aware of any fish kills during this period. He stated he has no reason to believe that the Ashton Dam is to blame for this, and that the issue may be naturally occurring

The Henry's Fork within the Lower and Upper Henry's Fork sub-basins are not identified as "impaired waters" under the Clean Water Act Section 303(d) by the IDEQ.

Regarding the upcoming Dam Remediation Project, recommendations were made by IDEQ and the Foundation, during the FERC licensing process, to collect sufficient data to understand the quantity and potential for release of sediments. PacifiCorp has agreed to implement such studies, although details of the study plan were not identified. A Consent Order issued by the IDEQ to PacifiCorp dated June 14, 2010, recognizes the potential for short-term deviations from State Water Quality Standards during the project. This Order also specifies pre-construction studies and monitoring to be performed during the construction to address concerns of water quality and subsequent fisheries impacts from potential sediment release during the project. (See a copy of this Order contained in Appendix C for additional requirements designed to protect water quality.)

Past drawdown and refill of the reservoir in early 2010 for dam inspection purposes has not be found to have negatively impacted water quality, suggesting that PacifiCorp is diligent in managing such activities to avoid sediment releases and related impacts.

In summary, while the outdated or anecdotal information indicate compliance with quantitative standards supporting designated uses, current compliance data based on test results do not exist at present.

B. Water Quality – The Facility is in Compliance with all conditions issued pursuant to a Clean Water Act §401 issued in 1985 for the Facility area and in the downstream reach. Insufficient data exists to confirm that standards are attained. The reach of the river upstream, at and downstream of the facility, based on anecdotal information from the IDEQ, IDFG and Henry's Fork Foundation, appears to meet state water quality standards. These waters are not 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. - FACILITY CONDITIONALLY PASSES (see Recommendations for Conditions)

2.3 Criteria C - Fish Passage and Protection

Goal: *The facility provides effective fish passage for riverine, anadromous and catadromous fish, and also protects fish from entrainment.*

Standard: *For riverine, anadromous, and catadromous fish, a facility must be in compliance with recent (after 1986) mandatory prescriptions regarding fish passage (such as a Fish and Wildlife Service prescription for a fish ladder) as well as any recent resource agency recommendations regarding fish protection (e.g., a tailrace barrier). If anadromous or catadromous fish historically passed through the facility area but are no longer present, the applicant must show that the fish are not extirpated or extinct in the area because of the facility*

and that the facility has made a legally binding commitment to provide any future fish passage recommended by a resource agency.

When no recent fish passage prescription exists for anadromous or catadromous fish, and the fish are still present in the area, the facility must demonstrate either that there was a recent decision that fish passage is not necessary for a valid environmental reason, that existing fish passage survival rates at the facility are greater than 95% over 80% of the run, or provide a letter prepared for the application from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service confirming the existing passage is appropriately protective.

There were no records of anadromous or catadromous fish movement through the facility waters. Historically, anadromous salmon were impeded from migrating to the area by Shoshone Falls on the Snake River, located downstream of the confluence of the Henry's Fork with the Snake River. The U.S. Department of Interior, Fish and Wildlife Service (USFWS), did not prescribe any fish passage facilities under Section 18 of the Federal Power Act (FPA) for the Ashton-St. Anthony Project, but did reserve the authority to do so in the future.

Riverine fish passage recommendations were issued under Article 403 only at the Egin Irrigation Diversion (EID) Dam (at the head of the diversion to the St. Anthony's development) of the Ashton-St Anthony's Project, and are briefly addressed here. Although several extensions were requested and granted, the fish passage was installed in June 1993 and subsequent effectiveness studies were found by IDFG and USFWS to be satisfactorily. Reports summarizing fish passage results are submitted every five years by PacifiCorp. A copy of FERC's Order dated February 10, 1995 (see Appendix B) acknowledges concurrence from IDFG and USFWS that the fishway is operating effectively and that PacifiCorp adopted the resource agencies' recommendations for annual fishway inspection prior to the start of the migration period, and daily during migration.

Fisheries restoration studies and requirements required under Articles 402 and 404 of the FERC license are addressed under *Section 2.4, Criteria D - Watershed Protection.*

In summary, no fish passage requirements were mandated specifically for the Ashton Project. Fish passage requirements at the EIG are in compliance with resource agency recommendations. Consultation with IDFG indicated that the fish passage facility is operating satisfactorily.

C. Fish Passage and Protection – There are no Mandatory Fish Passage Prescriptions for upstream and downstream passage at the Ashton Project of anadromous and catadromous fish, or riverine fisheries issued by Resource Agencies after December 31, 1986 -Upstream fish passage requirements at the associated EIG dam - St Anthony development is in compliance with recommendations agreed to by resource agencies.
FACILITY PASSES.

2.4 Criteria D - Watershed Protection

***Goal**: Sufficient action has been taken to protect, mitigate and enhance environmental conditions in the watershed.*

***Standard**: A certified facility must be in compliance with resource agency recommendations and FERC license terms regarding watershed protection, mitigation or enhancement. These may cover issues such as shoreline buffer zones, wildlife habitat protection, wetlands protection, erosion control, etc. The Watershed Protection Criterion was substantially revised in 2004. The revised criterion is designed to reward projects with an extra three years of certification that have: a buffer zone extending 200 feet from the high water mark; or, an approved watershed enhancement fund that could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.1. and has the agreement of appropriate stakeholders and state and federal resource agencies. A Facility can pass this criterion, but not receive extra years of certification, if it is 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.*

The Ashton Project does not have a designated buffer zone extending 200 feet from the high water mark around the impoundment, does not have an approved watershed enhancement fund equivalent to protection offered by a 200 foot buffer zone, nor is there a Settlement Agreement in place providing an equivalent shoreland buffer or watershed land protection plan for conservation purposes. While there is no agency recommendation for developing a shoreland management plan, pursuant to Article 405 of the FERC license, and developed in consultation with the USFWS and the IDFG, PacifiCorp has developed and implemented a Wildlife Enhancement Plan (Plan) that serves to protect and enhance about 450 acres of riparian habitat and shorelines. The Plan, originally developed and approved in 1990, was revised in 1995. In approving the revised Plan, the FERC Order dated September 10, 1996 (see Appendix B) states: "The revised Plan is the result of extensive negotiations among the licensee, IFG, and the USFWS. The IFG and USFWS agreed to the plan by separate letters dated November 30, 1995." In accordance with the approved reporting schedule, PacifiCorp submits summary reports on implementation of the Wildlife Enhancement Plan to FERC, IFG, and the USFWS every five years.

Major components of the Plan include:

- Ashton Reservoir Riparian Enhancements- PacifiCorp has installed and maintained 3.7-miles of cattle fencing along the shoreline of Ashton Reservoir. The fencing confines grazing to selected riparian and upland areas, thereby allowing vegetation to grow for the enhancement of wildlife habitat. Twenty acres of land have also been planted with native trees and shrubs to speed the growth of vegetation. A 5.7-acre area adjacent to the reservoir is planted annually with alfalfa-bluegrass to provide goose forage.
- Wetland Preservation –PacifiCorp has protected 250-acres of an upland/wetland complex by acquiring conservation easements or ownership of the properties, located about 1 mile southeast of Ashton Reservoir. The easements prohibit changes to these lands that would diminish their current value for wildlife. PacifiCorp has also acquired grazing rights to control cattle grazing on a total of 176-acres of land within and adjacent to the above 250-acre area. The conservation easements and grazing rights together enable PacifiCorp to manage the above lands for wildlife purposes.

- Sand Creek Wildlife Management Area- PacifiCorp has also installed two miles of cattle fencing at the Sand Creek Wildlife Management Area owned by IFG, located about ten miles northwest of Ashton Reservoir. The fencing controls grazing and allows riparian and upland areas to be restored.
- Nesting and Perch Structures- PacifiCorp has constructed and maintained 15 raptor perches, ten osprey nesting platforms, and one bald eagle nesting platform around the shoreline of Ashton Reservoir. PacifiCorp is also maintaining ten goose nesting platforms that have been installed at the Sand Creek Wildlife Management Area.

According to FERC's description in the 10(j) section of the current license, the IDFG filed a motion to intervene that recommended screening at St. Anthony to prevent mortality of wild trout and as mitigation for hatchery trout at Ashton. Further on in the 10j section of the license, FERC indicates that IDFG reviewed PacifiCorp's alternative measures and agreed to consider them pending results of the post-operational monitoring studies and evaluation of non-screening alternatives. As such, the FERC license Articles 402 and 404 required that monitoring studies be conducted, and if such studies suggest impacts are significant, that screening or other offsite mitigation be provided. The license states that at Ashton Reservoir, any turbine-related mortality would be compensated for through a reservoir stocking program that is tied to fish size and catch rates in the reservoir. In the License Order (FERC 8/3/87, Page 28), FERC states that the plan has been accepted by IDFG and provides adequate mitigation for the impacts of Ashton Reservoir.

FERC Order dated September 29, 1988 approved PacifiCorp's study plan for the turbine studies, which were completed in August 1990. For Ashton Dam, the turbine mortality study indicated that entrainment impacts were estimated from a literature review of turbine mortality studies from projects with similar types of turbines. The resource at risk was determined by utilizing the data obtained from a two year fisheries evaluation study conducted by IDFG. The study indicated that Ashton Reservoir has a composition of about 97% non-game fish and 3% salmonids. The literature reviews also indicated that if fish entrainment did occur, the turbine-induced mortality would be low. The replacement of the Unit 1 turbine will also reduce the

mortality significantly. The study concluded that for the Ashton facility, the proposed fishery enhancement plan, required by Article 402, would more than compensate for the fishery at risk due to turbine-induced mortality. A comment letter from IDFG on 9/27/90 criticized some of the conclusions regarding the St. Anthony results but for Ashton Reservoir, they agree that the License Article 402 fishery enhancement plan is appropriate mitigation and urged implementation. PacifiCorp subsequently agreed to pay for annual stocking of rainbow trout in the Ashton Reservoir and to fund an upgrade to the Ashton Fish Hatchery so they can raise the trout needed for the Ashton Reservoir Fish Stocking Program. (See Appendix C for letter from PacifiCorp to FERC dated 11/3/1995, including agency comments, regarding the final resolution.) Such funding can be viewed as serving the purpose of a watershed enhancement fund. Based on consultation with PacifiCorp, PacifiCorp's annual Egin Canal fish salvage returns a high number of fish to the Henry's Fork that would otherwise be "lost" down the irrigation canal.

Not having been involved in the relicensing proceedings, further details on the issue were not available from Mr. Dan Garren of IDFG when consulted on August 10, 2010.

By an FERC Order dated July 12, 2010 (see Appendix B), the annual funding would be used for upgrades to fish rearing facilities at the Ashton Hatchery in lieu of stocking in 2010, 2011 and 2012, while the Dam Remediation Project in underway.

As noted in the comment letter received from the Foundation, concern is expressed that the occurrence and magnitude of fish injury and mortality from turbine passage is unknown. However, as noted above, apparent support was received from the IDFG for the stocking program at Ashton for mitigation of losses at this facility. As noted in Section 4.0, IDFG acknowledges that PacifiCorp has been very supportive in meeting funding obligations and implementing the approved Wildlife Enhancement Program.

D. Watershed Protection – A 200 foot designated buffer zone has not been required for dedication to conservation purposes nor is there an approved watershed enhancement fund

equivalent to protection offered by a 200 foot buffer zone. Likewise, there is no Settlement Agreement in place providing an equivalent shoreland buffer or watershed land protection plan for conservation purposes, nor is there has there been a recommendation by state and federal agencies for a shoreland management plan. The Facility, however, is in compliance with Resource Agency Recommendations for a Wildlife Enhancement Program protecting about 450 acres and a Fisheries Enhancement Program, including annual funding in the amount of $30,000.- FACILITY PASSES.

2.5 Criteria E - Threatened and Endangered Species Protection

***Goal**: The facility does not negatively impact state or federal threatened or endangered species.*

***Standard:** For threatened and endangered species present in the facility area, the facility owner/operator must either demonstrate that the facility does not negatively affect the species, or demonstrate compliance with the species recovery plan and any requirements for authority to "take" (damage) the species under federal or state laws.*

There are no known federally listed fish or botanical species in the facility area or downstream reach. The Environmental Assessment for the project found that bald eagle (*Haliaeetus leucocephalus*) and peregrine falcons (*Falco peregrines*) migrate through the area. However, both bald eagle and peregrine falcon have been removed from the federal threatened and endangered species list. Idaho does not have a state Endangered Species Act.

On January 22, 2010, PacifiCorp Energy sent a request to the USFWS for consultation on federally listed threatened or endangered species as well as license compliance in associated with the Dam Remediation Project. On January 28, 2010, the USFWS sent a letter providing the finding that no listed species are present.

E. Threatened and Endangered Species Protection – There are no threatened or endangered species or their critical habitat listed under state or federal Endangered Species Acts present in the Facility area. FACILITY PASSES

2.6 Criteria F - Cultural Resource Protection

Goal: *The facility does not inappropriately impact cultural resources.*

Standard: *Cultural resources must be protected either through compliance with FERC license provisions, or, if the project is not FERC regulated, through development of a plan approved by the relevant state, federal, or tribal agency.*

Article 408 of the project license required development of a cultural resources plan to be implemented to mitigate any impacts to a historic turbine (Unit No. 1) that was proposed for removal in the license application. Article 408 also requires submittal of a report regarding the turbine's historic significance and plans for its removal. However, in an Order dated February 2, 1990, FERC amended the license in response to PacifiCorp's plans to upgrade, rather than remove, the historic turbine. On December 30, 1991, PacifiCorp submitted appropriate documentation of the turbine in accordance with Article 408. The Idaho State historic Preservation Officer found that the turbine upgrade would not affect the historical significance of the Ashton Project or its eligibility for the National Register of Historic Places. FERC stated that this submittal fulfilled the requirements of Article 408 in an Letter Order dated February 28, 1992. (The Letter Order was provided by PacifiCorp as part of its LIHI application.)

On January 25, 2010, PacifiCorp filed a consultation request with the SHPO's office regarding the Dam Remediation project. A response letter received from the SHPO on March 12, 2010 requested that PacifiCorp Energy contract with a consultant to perform ground reconnaissance for archeological resources in higher probability areas of the reservoir drawdown zone, material borrow areas and stockpile areas. The SHPO also requested that PacifiCorp Energy monitor for vandalism. PacifiCorp Energy has agreed to comply with the SHPO's requests.

F. Cultural Resources – The Facility is in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license - FACILITY PASSES.

2.7 Criteria G - Recreation

Goal: *The facility provides free access to the water and accommodates recreational activities on the public's river.*

Standard: *A certified facility must be in compliance with terms of its FERC license or exemption related to recreational access, accommodation and facilities. If not FERC-regulated, a facility must be in compliance with similar requirements as recommended by resource agencies. A certified facility must also provide the public access to water without fee or charge.*

Article 406 of the license required development of several new recreational features and the upgrade of existing facilities. These recreational enhancements were in compliance with recommendation made by the National Park service and the Idaho Department of Parks and Recreation. The enhancements included adding a new picnic area and parking lot, repairing boating facilities, and installing an accessible ramp at the fishing-observation pier. Recreational enhancements have been implemented in accordance with the license. In the coming year, PacifiCorp plans to replace barbeque grills that were removed due to vandalism. The license also required easements or titles to be obtained for privately owned lands that were proposed for use as recreational sites in the license application. PacifiCorp has acquired easements or ownership of these lands. Finally, PacifiCorp provides free access to designated boat launch areas and tailwater fishing facilities

Review of the two most recent FERC Environmental and Public Use Inspection Reports has indicated that Pacificorp, in general, has been appropriately maintaining these recreational facilities. Any deficiencies found have been remedied in a timely basis.

G. Recreation – The Facility is in Compliance with all requirements regarding Recreation protection, mitigation or enhancement included in the FERC license and allows access to the reservoir and downstream reaches without fees or charges - FACILITY PASSES

2.8 Criteria H - Facilities Recommended for Removal

***Goal**: To avoid encouraging the retention of facilities which have been considered for removal due to their environmental impacts.*

***Standard:** If a resource agency has recommended removal of a dam associated with the facility, certification is not allowed.*

No resource agency has recommended removal of the Ashton Project dam. The St. Anthony development is being considered for decommissioning or sale by PacifiCorp.

H. Facilities Recommended for Removal – There are no Resource Agency Recommendations for removal of the dam associated with the Facility - FACILITY PASSES.

3.0 RECOMMENDATION

This application review was conducted by Patricia McIlvaine, Project Manager with Wright-Pierce. My review of PacifiCorp Hydro LLC's application for certification as a "low impact hydropower facility" under the criteria established by the LIHI consisted of the following:

- review of information submitted by the applicant both in the initial application package and in response to document requests and questions raised by me;
- review of additional documents obtained from the FERC on-line database and PacifiCorp's website available for public review; and
- consultation with the resource agency and non-governmental personnel listed in Section 4.0 of this report.

PacifiCorp's commitment to ensuring compliance with all environmental, recreational and cultural resource obligations specified in their FERC license is apparent from review of the numerous documents and reports prepared by PacifiCorp and other documents available from FERC's eLibrary. I believe that documentation exists to demonstrate that the Ashton Project is currently in compliance with all of the criteria required for certification, although my recommendation for certification is predicated on the conditions noted below. One condition is associated with the remediation project; the other water quality. LIHI would reserve authority to suspend or revoke certification if either set of conditions are not successfully satisfied.

All required resource agency consultation appears to have been completed for the Dam Remediation Project. While certain key agreements have already been reached, as evidenced in the Consent Order signed by PacifiCorp and the IDEQ, consultation with IDFG and USFWS representatives has indicated that negotiations are continuing with PacifiCorp regarding development of additional plans that would address actions that would be taken to stop a sediment release should one occur, as well as impact mitigation that would be implemented if needed. All resource agency and non-governmental organizations reached through telephone consultation provided consistent complementary opinions about PacifiCorp's environmental stewardship activities on the Ashton Project. However, both the Foundation and IDFG have recommended that certification be delayed until after the dam Remediation project is completed.

While the potential for sediment release is a common concern of several resource agencies and the Foundation, and a serious loss of sediment could significantly impact a very important natural resource, I do not believe that certification should be withheld until the remediation project is completed based on the following reasons:

- PacifiCorp appears to have demonstrated the required attention to its overall environmental compliance requirements since license issuance;
- PacifiCorp appears to be working diligently with the applicable resource agencies in developing protective measures to be implemented during the Dam Remediation Project; and
- It does not seem appropriate to withhold recognition of their past and current efforts based on the "potential" for an adverse impact to occur over the next three year period.

Because of the concerns associated with this remediation effort, I suggest that a condition of certification be that LHI is provided notifications of events similar to those included in the Consent Order established for the remediation work:

- a letter notification within two weeks, of drawdown and other potential sedimentation causing activities which are required to be provided to the IDEQ within 24 hours; and
- a letter documenting any sedimentation events that required implementation of the Best Management Practices (BMPs) under the Consent Order. Such documentation shall describe the event, BMPs implemented to mitigate the problem, and impacts that have occurred. LIHI would have the authority to request additional information from PacifiCorp, and consultation with applicable resource agencies, to allow us to determine continuing compliance with our certification criteria.

The Project's Water Quality Certificate is dated 1985, and there is no quantitative data to document compliance with quantitative water quality standards. However, the fisheries are very healthy below the dam, which in part, suggests that water quality in the waters downstream of the Project is good. As a result, LIHI should establish the following second set of conditions:

- PacifiCorp shall provide LIHI, a copy of the same documents submitted to the IDEQ, and on the same schedule, as required under the Water Quality Monitoring Plan of the Consent Order established with the IDEQ;
- PacifiCorp shall provide LIHI a letter from the IDEQ, attesting to PacifiCorp's compliance with requirements of the Consent Order, within 3 months of each filing made to the IDEQ;
- within two years of certification, documentation is submitted to LIHI showing agreement has been reached with the IDEQ on a water quality testing regime, to be implemented at the conclusion of the Remediation project, demonstrating that quantitative water quality standards are being met for parameters potentially impacted by Project activities in the reservoir and downstream: and
- not later than 18 months following completion of the Remediation Project, PacifiCorp shall submit to LIHI, the data showing that these quantitative water quality standards are indeed being met, with confirming letter from IDEQ.

4.0 RECORD OF COMMUNICATIONS

This section documents the contacts made with resource agencies, other interested parties and the applicant during the review of this application. A summary of the comments are included. Where the communications were by email, a copy of the email is contained in Appendix D. The table below lists those entities that were contacted several times by telephone and email, but could not be reached and no return calls or emails were received.

Entity / Individual	Contact Information	Dates of Contact Attempts
Ms. Elizabeth Dary District Ranger U.S. Forest Service	208-652-7442 / edary@fs.fed.us Ms. Dary replaced Adrianne Keller who retired in June 2010	Telephone messages on 08/05/10 and 08/10/10; email on 8/12/10.
Mr. Gary Vecellio Idaho Department of Fish and Game (IDFG)	208-525-7290 or gary.vecellio@idfg.idaho.gov	Telephone message on 08/04/10 and 08/17/10
Ms. Suzi Pengilly Idaho state Historic Preservation Office	208-334-2847 ext 107 Suzi.pengilly@ishs.idaho.gov	Telephone messages on 08/05/10 and 08/10/10; email on 08/12/10

If any of the individuals listed above respond following submission of this Report to LIHI, copies of those responses will be immediately provided to the LIHI Board of Directors.

Communications Made

Dates of Communication	Telephone call 08/05/10 Various emails
Application Reviewer	Patricia McIlvaine
Persons Contacted	PacifiCorp Hydro LLC • Mr. Randy Landolt, Managing Director, Hydro Resources • Mr. Mike Ichisaka, Hydro Resources Staff All telephone consultation was made with Mike Ischisaka
Telephone and/or email address	Randy.landolt@pacificorp.com

	Mike.Ichisaka@acificorp.com
Appendix D contains a copy of emails sent to and received from PacifiCorp representatives. Inquiries were made of PacifiCorp on a variety of topics, seeking information on information not originally provided and not available from FERC's eLibrary. See individual emails for the specific issues.	

Date of Communication	Telephone call on 08/04/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Troy Saffle Regional Water Quality Manager Idaho Dept. of Environmental Quality
Telephone and email address	208-528-2650
Mr. Saffle confirmed that insufficient water quality data exists for most of the Snake River, including the portion of the Henry's Fork up and down stream of the Ashton project. He also reported that the IDEQ has insufficient funds to have the required sampling conducted, and that most sampling that is currently being undertaken is done on small streams, and not rivers such as the Henry's Fork which are harder to sample. He stated that based on anecdotal inforation, he would say that the river section immediately up and downstream of the Ashton Project does appear to meet water quality standards given the successful cold water sport fisheries data of this area. The dissolved oxygen and temperature is likely good given the healthy fish populations in the area. Past electro-shocking studies by the Idaho Department of Fish and Game (IDFG) also support this assumption. He suggested contacting Dan Garren at IDFG. He reported that his office has, mostly in the past (about 10 years ago) received complaints about boating restrictions and flow reductions, but that he simply forwards those complaints to PacifiCorp as IDEQ only addresses water quality concerns. A more recent complaints on flow received in late July was likewise forwarded. His primary concern of the project is the upcoming dam Remediation Project and the potential for a significant release of sediments from removal of the existing dam. Such a sediment release could seriously affect water quality and downstream fisheries habitat and populations. He provided a copy of the voluntary Consent Order signed by PacifiCorp which addresses the plans PacifiCorp has and will put in place to prevent such a problem from occurring. To date, PacifiCorp has complied with the conditions of this Consent Order, such as completion of the referenced engineering studies. Because of the run-of-river operation he feels, in general, that the Project does not negatively impact river water quality.	

Date of Communication	Telephone call on 08/05/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Garth Taylor South Idaho Regional Manager Idaho Department of Parks and Recreation
Telephone and email address	208-525-7121

Mr. Taylor reported there are no state park facilities on the Ashton Reservoir, one county recreational area nearby and that the reservoir is actively used for boating. Reservoir access is limited to that provided by PacifiCorp as mush of the surrounding land is privately owned. He suggested contacting Henry"s Fork Foundation and Mr. Gary Vecellio of IDFG for more information about recreational fishing at the Project. He stated he has no concerns regarding PacifiCorp's role in providing recreational access to the public; nor does he have concerns regarding the Dam Remediation Project's potential for impacts to recreational use.

Date of Communication	Telephone call on 08/10/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Dan Garren Regional Fisheries Manager Idaho Department of Fish & Game (IDFG)
Telephone	208-528-2650

Mr. Garren he was not involved in the originally licensing of the Ashton Project but has been involved in more recent activities. In response to my questions regarding fisheries populations as an indicator of water quality suitability for listed beneficial uses, he stated that, yes, the cold water fisheries populations are robust in this area of Henry's Fork. During the hottest summer months, fish do become less active likely due to warm water temperatures, although he is not aware of any fish kills during this period. He stated he has no reason to believe that the Ashton Dam is to blame for this, and that the issue may be naturally occurring. Regardless, Henry's Fork in this area supports year-round cold water species populations.

He has been actively involved in discussions with PacifiCorp on the Dam Remediation activities. While PacifiCorp appeared less attentive to their concerns at first, they have undergone an "about face" in their negotiations and are now working well with the agencies. He is pleased with the conditions agreed upon in the Consent Order signed with IDEQ. He stated that ongoing discussions now are focused on requests for PacifiCorp to develop formal plans to address how they would stop a sediment release, should it occur, and what mitigation activities they would employ to mitigate impacts from such a release. No agreements have yet been reached on these discussions.

Mr. Garren was not involved during the initial FERC re-licensing and associated recommendations regarding fish screening at the St. Anthony's development. He did stated he

was aware that turbine mortality studies were completed as agreed upon in the FERC licensing process. He stated that PacifiCorp's mitigation for anticipated fish losses is the annual fish salvage program conducted downstream of St. Anthony's development and placement of these fish in the river downstream of Ashton Project. He feels this is an appropriate plan at this time.

He expressed no concerns regarding the wildlife enhancement programs in place at Ashton and feels PacifiCorp is managing the program to the satisfaction of IDFG. His closing comment was that he while is has been pleased with PacifiCorps programs for fish and wildlife protection to date, that he would like to see the LIHI certification process be delayed until after the Dam Remediation project is completed in 3 years. He feels it would be a difficult situation for the project to be certified as "low impact" only to have a substantial impact occur during the Dam Remediation Project.

Date of Communication	Telephone call on 08/10/10.
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Ty Matthews U.S. Fish and Wildlife Service (USFWS)
Telephone and email address	208-652-7442 / edary@fs.fed.us
Mr. Matthews has been involved only been involved with the Ashton project regarding the Dam Remediation Project. He stated that PacifiCorp has responded "fairly decently" regarding issues raised by USFWS), although he did comment that his former supervisor did say PacifiCorp was less accommodating during earlier stage discussions of the remediation work. The primary USFWS's concern is impacts of lowered reservoir elevations on nesting waterfowl. Once this issue was raised, PacifiCorp responded by modifying the schedule for the drawdown to avoid the nesting period. Mr. Matthews stated this satisfactorily addressed his concerns. He had no other comments to offer.	

Date of Communication	Telephone call on 08/10/10. Discussion on 8/16/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Stephen Trafton The Henry's Fork Foundation
Telephone	208-652-3567

Mr. Trafton reviewed his concerns as expressed in his comment letter submitted to LIHI. He stated that his concern with fluctuating flows was more of a safety issue, with the possibility of stranding fisherman, and loss of opportunity for fisherman to wade the river when flows are ramping up quickly. He stated high flows may cause some potential harm to fisheries resources, although he is unaware of any fish stranding reports from low flows. Low flows could cause damage to Brown Trout egg nests recently deposited. He stated he believes natural flows would not fluctuate so quickly and abruptly. He was not aware of the turbine mortality studies done by PacifiCorp, but acknowledged that he does not think it is a significant issue. He stated that power outages were not uncommon, causing a drop in flows until the gates open. He stated that PacifiCorp has taking the concerns being raised on the Dam Remediation Project very seriously and has been proactive in developing plans to prevent a sedimentation issue from occurring. he stated that he heard unofficially that the drawdown schedule may be delayed until December 2010.

Date of Communication	Telephone messages on 08/05/10 and 08/10/10; email on 08/12/10. Call on 08/25/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Tom Bassista Idaho Department of Water Resources Water Resources
Telephone and email address	208-525-7161; tom.bassista@idwr.idaho.gov

Mr. Bassista is a Stream Protection Specialist with IDWR. Prior to working for IDWR he was a contractor to the US ACOE responsible for ACOE licensing of the Dam Remediation Project at the Ashton Project. He stated that in his opinion, PacifiCorp has done an exceptional job at development of measures to prevent a sediment release during the remediation work. He stated that the sediment studies they performed were very well done, addressing the quantity, composition, location and mobilization of the sediments, and involved experts in the field of modeling to help understand what elevation thresholds might trigger sediment release. He believes that between the turbidity monitoring and these modeling studies, they have "the best tool possible" to manage the issue. The monitoring will allow them to quickly "shut down" activities if a plume is identified. He reported that PacifiCorp has been very proactive in keeping the public and agencies informed on the Remediation Project. He suggested calling John Falk at 208-287-4927 for additional insight.

Date of Communication	Telephone call on 08/25/10
Application Reviewer	Patricia McIlvaine
Person Contacted	John Falk Idaho Department of Water Resources Dam Safety
Telephone and email address	208-287-4927
Mr. Falk focused his comments on water resource use. He stated that PacifiCorp has been very proactive in working with the irrigators who share the water to ensure that pool elevations are maintained at levels suitable for their use during the key irrigation season. He also stated that PacifiCorp has provided timely notification to the irrigators when elevations will need to change so that they can appropriately adjust their pumping systems. PacifiCorp has valid Water Rights (Permit #21-2164) and is a more "senior" rights holder on this section of the river. He explained that water rights are based on "seniority" with those holding earlier permits having first access to the water. Nonetheless, he believes PacifiCorp is working well with other users having more "junior" rights.	

APPENDIX A

COMMENT LETTERS RECEIVED BY LIHI

THE HENRY'S FORK FOUNDATION, INC.

Mailing Address
P.O. Box 550
Ashton, ID 83420

phone 208-652-3567
fax 208-652-3568
email hff@henrysfork.com

Headquarters
606 Main Street
Ashton, ID 83420

Watershed Center
604 Main Street
Ashton, ID 83420

February 25, 2010

Fred Ayer
Low Impact Hydropower Institute
34 Providence Street
Portland, ME 04103

RE: Ashton Hydroelectric Project LIHI Certification

Dear Mr. Ayer,

We have reviewed the application materials submitted by PacifiCorp Energy for Low Impact Hydropower Institute certification for the Ashton Hydroelectric Project on the Henry's Fork of the Snake River. The Henry's Fork Foundation has been the voice of the Henry's Fork of the Snake River for over 25 years. We represent greater than 3,000 members nationwide who care about the unique fishery, wildlife, and aesthetic qualities of the Henry's Fork watershed.

Although it appears the Ashton Dam facility may meet the eight certification criteria, the Foundation has concerns regarding the timing of the application for LIHI certification. PacifiCorp, in consultation with the Federal Energy Regulatory Commission, is in the early phase of a major dam remediation project for this nearly 100 year-old dam and hydroelectric facility. The project was initially scheduled to take place during 2010-2011, but we have recently learned from PacifiCorp that remediation will extend over three years, to be completed in 2012. The upstream face of the dam will be completely removed and rebuilt, and a new low-level outlet tunnel will be constructed, resulting in some significant changes to the facility.

As part of the dam remediation project, Ashton Reservoir will be drawn down to the lowest level it has been for 85 years. We have discussed our concerns regarding mobilization of sediment in the reservoir with PacifiCorp, Idaho Department of Fish and Game, Idaho Department of Environmental Quality, and FERC. Although PacifiCorp has assured us they will address the sediment issue, we remain concerned that even a small sediment event could jeopardize the blue ribbon trout fishery immediately below Ashton Dam. This is one of the few sections of the Henry's Fork that has not suffered significant resource damage due to major sediment mobilization events (Island Park Dam in 1992, and

Teton Dam failure in 1976, to name two). It is critical that the sediment situation in Ashton Reservoir be carefully assessed prior to the three planned major drawdowns during the remediation project. Appropriate measures must be taken to both prevent a major sediment event and to mitigate the impacts of any release that may occur. The sediment situation must be monitored prior to, during, and after construction. With all the activity planned at the Ashton Dam project in the next three years, we recommend review and certification of the Ashton Hydroelectric project by LIHI be postponed until the dam remediation project is complete.

Comments on Certification Criteria:

River Flows: Ashton Dam is operated as a run-of -river operation. Flows above the dam vary due to seasonal runoff and upriver dam operations (Henry's Lake Dam, Island Park Dam). However, there are several situations where flows below Ashton Dam have fluctuated significantly. One situation occurs during a power outage. As we understand it, the turbines shut down and outflow drops to about 300 cfs until a PacifiCorp employee manually restarts the turbines. Perhaps during the remediation project, some design adjustments could be made to shunt water to the outlet tunnel until the turbines restart. The second situation occurs when, for unexplained reasons, the flows below the dam fluctuate as much as 400-600 cfs within a 24-hour period. This is often at a time when normal flows are in the 1,000 cfs range. The Ashton facility operates with a 0.3 foot control dead band before water releases are automatically adjusted to maintain the run-of-river mode. Perhaps the computerized controls can be recalibrated to prevent such large daily fluctuations in water releases. Not only do these fluctuations potentially risk stranding fish immediately downstream of the dam, but the sometimes rapid increases in flow endanger fishermen who may have waded out into the river that initially was much more shallow. These flow fluctuations also result in poor fishing conditions in a section of river that contributes millions of dollars to the local economy. The last situation has occurred more recently when the reservoir level was changed to complete dam maintenance or safety testing. We understand the need to adjust reservoir levels from time to time, but the pre-notification to local river users and downstream irrigators could be improved through better communication with the local communities. These three flow fluctuation situations should be addressed prior to LIHI consideration.

Water Quality: Although water quality below Ashton Dam likely meets state water quality standards based on the existence of a blue-ribbon trout stream, actual water quality data is lacking. PacifiCorp should be encouraged to work with Idaho Department of Environmental Quality to implement a water quality monitoring program downstream of Ashton Dam. The LIHI criteria note that "In the future, a limited program of regular water quality monitoring and reporting to the public may be required of certified facilities." We encourage LIHI to include this as part of the water quality criteria. In the Ashton Dam case, if LIHI considers the certification application prior to completion of the dam remediation project, it would be absolutely critical to include this standard.

Fish Passage and Protection: As noted in the application materials, the Henry's Fork does not support anadromous fish. Rainbow trout, Yellowstone cutthroat trout, brown trout, and mountain whitefish are the predominant game fishes. There is no upstream fish passage at

Ashton Dam, nor to our knowledge has the Idaho Department of Fish and Game requested such modifications. The occurrence and potential magnitude of downstream fish movement into the turbine intakes, along with subsequent injury and mortality from fish passage through the turbines, is unknown.

Watershed Protection: No comment.

Threatened and Endangered Species Protection: No comment.

Cultural Resources Protection: No comment.

Recreation: A walk-in public access is provided immediately downstream of the dam, and is a popular fishing access site. A small park and boat ramp facility, maintained by Fremont County Parks and Recreation Department, is located at the upper end of Ashton Reservoir. That site is heavily used as a boat takeout site for anglers who fish the section of the Henry's Fork above Ashton Reservoir. That site is also the main access to the reservoir for boating and other recreational activities.

Facilities Recommended for Removal: To our knowledge, Ashton Dam has not been recommended for removal by a natural resource agency.

To reiterate, we recommend LIHI evaluation for the Ashton Hydroelectric project be postponed until completion of the Ashton Dam remediation project in late 2012. Thank you for considering our comments.

Sincerely,

Stephen D. Trafton
Executive Director

PACIFICORP ENERGY
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 1500
Portland, Oregon 97232

May 25, 2010

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

RE: Pending Application for Low Impact Hydropower Certification of the Ashton Facility

Low impact hydropower certification (Certification) is a process by which hydropower projects may be evaluated to determine that specific projects are 1) well sited and operated so that environmental impacts are minimized, and 2) in compliance with resource agency recommendations with respect to established Certification criteria. Hydropower dams, like all generation resources, have both positive and negative environmental impacts. Certification does not require that a hydro project have no environmental impacts (LIHI Guidelines, Part I, p. 7). The objective of Certification is to provide a credible and accepted standard for consumers to use in evaluating hydropower.

PacifiCorp's application for Low Impact Hydropower Certification of the Ashton Hydroelectric Project was posted on the LIHI website in December 2009. A comment letter from the Henry's Fork Foundation (HFF) was subsequently posted on the LIHI website. The comment letter stated concerns over the timing of the application relative to the Ashton Dam remediation work and the potential for impacts from sediment. Comments related to the river flow and water quality criteria for Certification were also included. The HFF recommended deferral of review and Certification of the facility until completion of the dam remediation project. HFF recommended that appropriate measures be taken during the Ashton Dam remediation project to prevent a major sediment event and to mitigate impacts if they occur.

While PacifiCorp respects the right of the HFF to raise concerns about the impacts of hydropower, PacifiCorp believes that the Ashton project meets the criteria established by LIHI for Certification. The Ashton project is in compliance with 1) the most recent, environmentally stringent, resource agency recommendations issued pursuant to a proceeding; 2) requirements of the Clean Water Act and the Endangered Species Act; and 3) license requirements issued by the Federal Energy Regulatory Commission (LIHI Guidelines, Part VI(C)). PacifiCorp will continue to coordinate with the appropriate resource agencies, the HFF, and the public throughout implementation of the Ashton Dam remediation work.

The following is a summary of HFF comments and PacifiCorp responses.

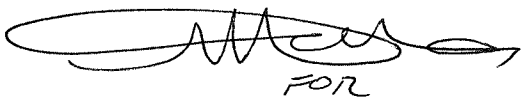
The HFF commented on flow criteria, noting several situations when flows below Ashton Dam have fluctuated significantly. Per the HFF letter; 1) one situation occurs during a power outage when flows are reduced to 300 cfs and, 2) "the second situation occurs when, for unexplained reasons, the flows below the dam fluctuate as much as 400-600 cfs within a 24-hour period. This is often at a time when normal flows are in the 1,000 cfs range." The first situation occurs during power outages when the generators go offline and water is diverted through a bypass valve until PacifiCorp operators can safely restore the system. These situations are uncommon and operators restore normal flows as soon as possible. The capacity of the bypass valve at normal pool elevation is limited to approximately 300 cfs so flows below the dam drop temporarily. The project license allows for temporary modifications of flows during emergencies. The second situation is likely the result of compliance with the license requirements to operate the project in an instantaneous run-of-river mode by minimizing the fluctuation of the reservoir surface elevation. The reservoir level is monitored at the dam and automated controls keep the reservoir within a 0.3-ft elevation dead band. When inflows cause the reservoir elevation to rise or fall, flow through the facility is increased or decreased accordingly to maintain the reservoir elevation within the dead band. There isn't any provision in the license for storing water in the reservoir for the purposes of buffering the effects of upstream flow changes. Tributaries that flow into the Henry's Fork between the Island Park Dam and the Ashton Reservoir, at certain times of the year, provide significant inflow to the project and their flows can fluctuate considerably resulting in the type of diurnal flow fluctuations that HFF describes. FERC reviewed the issue of flow fluctuations in the Henry's Fork below Ashton Dam and in their letter to PacifiCorp dated November 20, 2001, FERC stated: "*When examining stable river flows from the Island Park USGS gage with fluctuating river flows from the USGS gage at Ashton, it's reasonable to think that operation of the Ashton/St Anthony Project was causing the fluctuations. However, when comparing inflow data to the project, it's evident that the three tributaries were providing a significant amount of inflow in addition to the Island Park Project, and for a majority of the time in question, the three tributaries provided more than half the inflow to the Ashton project.*" FERC concluded that the Ashton project was in compliance with the run-of-river and reservoir elevation requirements of the license; the operating equipment tracked the changes in inflow, modified generation and, accordingly, passed the flows downstream.

The HFF also indicated that although water quality likely meets state standards, there is a lack of current monitoring data and they recommend that PacifiCorp work with IDEQ to implement a water quality monitoring program downstream of Ashton Dam. PacifiCorp has coordinated with the IDEQ to develop measures that will be implemented during the Ashton Dam remediation project to protect water quality and ensure that the project remains in compliance with the license and agency requirements. PacifiCorp is implementing measures to assess the potential for sediment impact including mapping sediment and modeling to determine the potential for sediment transport during the Ashton Dam remediation project. PacifiCorp may utilize measures to reduce downstream sediment movement if warranted based on results of the sediment study. These measures may include adjustments to the reservoir drawdown rate,

turbidity curtains or sediment traps. PacifiCorp has also agreed to conduct a spawning gravel assessment prior to the start of construction and at the completion of each project phase to provide a physical measure in addition to turbidity monitoring to assess fishery impacts from sediment movement. Additionally, advanced notice will be provided to the public and agencies when river flow changes are expected due to changes in the reservoir elevations (draw down/fill) for the project. PacifiCorp conducted outreach meetings in 2009 and has coordinated with the HFF through their regularly scheduled Henry's Fork Watershed Council Meetings that are jointly hosted with the HFF and the Fremont Madison Irrigation District.

PacifiCorp is committed to providing low-cost renewable hydropower at its hydroelectric facilities in an environmentally responsible manner. The Ashton project is in compliance with the FERC license and, state and federal laws. The Ashton Dam remediation project will help to ensure that the facility continues to provide reliable power generation throughout the term of the project license. Efforts have been made to minimize potential impacts to the environment and to address current and future public concerns. The goal of PacifiCorp's hydropower project operation is to balance clean, renewable energy for our customers while demonstrating stewardship of resources in the vicinity of our projects. PacifiCorp appreciates your consideration of the Ashton project for low impact hydropower Certification.

Sincerely,



Randy Landolt
PacifiCorp Energy
Hydro Resources, Managing Director

APPENDIX B

FERC ORDERS REFERENCED IN THIS REVIEW REPORT

950828-0154

950828-0154

72 FERC ¶ 62,161

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Pacificorp

Project No. 2381-017
Idaho

ORDER MODIFYING AND APPROVING MITIGATION PLAN

AUG 23 1995

By letter dated June 16, 1991, Pacificorp (licensee) was required by the Director, Division of Project Compliance and Administration, to develop a mitigation plan to compensate for environmental damage incurred during operation of the Ashton - St. Anthony Project. On August 29, 1991, and supplemented on July 23, 1993 and February 28 1994, the licensee filed a plan to compensate for fish and wildlife losses associated with a violation of article 401 that occurred at the project.

Article 401 requires, in part, that the licensee operate the Ashton Development in an instantaneous run-of-the river mode for the protection of fish and wildlife resources in the Henry's Fork of the Snake River. Additionally, the run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee and the Idaho Department of Fish and Game (IDFG).

Background

The licensee consulted with the IDFG in order to enter into a mutual agreement concerning the reduction of flows from the Ashton Dam in order to perform work on a downstream diversion structure at the St. Anthony Development. The work procedures required the run-of-river operation to be temporarily stopped and flows reduced to 300 cubic feet per second (cfs) as agreed to with the IDFG. The Ashton Reservoir was drawn down 3 feet prior to the reduction in outflows from the Ashton Dam. It was the intent of the Ashton operator to ramp the flows downs to approximately 300 cfs as agreed to with the IDFG. However due to misinterpretation of performance curves that relate unit output to turbine discharge, flows were mistakenly reduced to approximately 150 cfs. The flow rate was below 200 cfs for approximately 5 hours.

The 3 feet drawdown of the reservoir increased the river flow to about 1,600 cfs. The ramping down process occurred immediately after the reservoir was lowered. The 10-fold reduction in flows to 150 cfs, instead of the agreed upon 300 cfs, resulted in fish stranding and fish mortality.

By letter dated March 21, 1991, the licensee informed the Commission's San Francisco Regional Office of the incident. By

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letter dated April 11, 1991, the IDFG informed the Commission that on March 14, 1991, the day of the incident, the IDFG was on site and observed dead or dying rainbow trout, mountain whitefish and sculpins below the Ashton Dam on the Henry's Fork of the Snake River. The IDFG reported that both adult and juvenile trout were observed. An accurate assessment of the number of dead fish could not be determined at that time because outflows from the Ashton Dam had been increased which flushed all mortalities downstream.

After review of the available information, the Commission concluded by letter dated July 16, 1991 that the licensee failed to fully comply with the requirements of article 401. As a result of the violation, unquantified fish mortality occurred below the Ashton Development. The licensee was required to file a plan to provide for compensatory mitigation related to the incident.

The Licensee's Original Mitigation Plan

By letter dated August 29, 1991, the licensee filed a compensatory mitigation plan. The plan proposed to: have any future reservoir drawdowns coordinated by the project's Hydrologic Supervisor; use real-time U.S.Geological Survey data to control future reservoir reductions; to complete the installation of synchronous turbine bypass valve to ensure that unplanned flow reductions do not occur; develop fishing access facilities downstream from the Ashton Dam; and continue to work closely with the IDFG. The licensee's plan did not include agency comments.

By letter dated May 25, 1993 the licensee was directed to submit the mitigation plan to the IDFG and the U.S. Fish and Wildlife Service for comment prior to filing the final plan with the Commission. By letter dated July 23, 1993 the licensee stated that no comments were received from the resource agencies at the time of the original filing, therefore they filed it as is. The licensee stated that the mitigation plan would be sent to the resource agencies and any comments received from the agencies would be forwarded to the Commission with the licensee's response to the comments.

Resource Agency Comments

By letter dated August 19, 1993 the IDFG stated that the originally proposed compensatory mitigation plan was inadequate and unacceptable. The IDFG stated that the plan provided nothing beyond what was already required in the project license. By letter dated January 4, 1994 the licensee disagreed with the IDFG's comments but stated consultation would continue.

After further consultation, the IDFG provided additional comments by letter dated January 28, 1994. The IDFG stated that a quick estimate of the dead fish was made by the District Conservation Officer. The IDFG stated that the estimate was conservative because discharge was increasing at the time the District Conservation Officer arrived on site and some dead fish were probably carried downstream and not counted. The District Conservation Officer estimated fish mortality at 12 to 15 adult trout and 30 to 40 juvenile trout in 100 yards of river. Based on those estimates, the IDFG calculated mortality to be 1,690 adult trout and 4,506 juvenile trout in the Snake River below the Ashton Dam and before the confluence with the Fall River.

The IDFG used the American Fisheries Society guidelines for valuation of fish kills using costs for replacement with hatchery fish. The IDFG noted that the fish killed were wild trout and would not be replaced with hatchery raised trout. The replacement cost for the juvenile trout was $946.26 and $6,050.20 for the adult trout. The total value, without factoring in transportation, personnel and administrative costs, was $6,996.46. The IDFG stated that, when factoring in all costs associated with the replacement of the trout, the final figure would exceed $10,000.

The IDFG stated that neither cash compensation or hatchery fish can suitably replace the fish lost in the March 14 incident. Further, it was stated that there was little or no opportunity to mitigate on site for improvement of natural reproduction. Similarly, the IDFG stated that it was difficult to identify an off-site location for mitigation opportunities. Therefore, the IDFG recommended an alternative mitigation program.

The IDFG recommended a program that would provide funding for college students pursuing careers in natural resources. Compensatory mitigation would be for a fishery technician's salary to assist regional staff with fishery management activities on waters affected by the licensee's project. The temporary position would permit: the annual collection of gill net and limnological data, creel and spawning surveys, and age and growth analysis. The IDFG recommended a five year commitment from the licensee for five months per year for management activities on the Ashton Reservoir and the Henry's Fork of the Snake River below Ashton Dam. At the current entry level pay scale, the IDFG estimated the cost to be $5,287 per year. The IDFG recommended that after the five year period, the success of the program be reviewed to discuss continuation.

The Licensee's Revised Mitigation Plan

After consulting with the IDFG, the licensee revised the original compensatory mitigation plan by letter dated February 25, 1994. The licensee stated that, in addition to the

proposed 1991 plan, the licensee would contribute $10,000 for research and management activities associated with project waters.

The licensee contested the estimated number of fish killed during the March 1991 incident. Based on previous experiences, the licensee cited several instances when fish killed upstream of the St. Anthony Development resulted in dead fish on the St. Anthony trash racks. The licensee stated that it would be expected that some of the fish killed during the March 1991 incident would have been caught on the trash racks at the St. Anthony Development. However, the licensee stated, no fish were found on the trash racks after incident in March 1991. Nevertheless, the licensee stated that $10,000 would be allocated for compensatory mitigation for research and management programs at the Ashton Project.

Discussion

The licensee violated article 401 of the licensee when inadvertently reducing flows to approximately 150 cfs on March 14, 1991. The licensee stated that operator error was the cause of the low flow incident. As a result, there was an unquantified number of fish killed below the project. The licensee's original mitigation plan emphasized measures that would ensure future compliance with article 401. Compensatory mitigation was not provided in the licensee's original plan. Of the five items proposed by the licensee, only the development of fishing access facilities could be considered mitigation. However, the licensee stated the angler access area was provided to improve recreation and public safety when the dam was modified.

Therefore, based on the licensee's statement, it would appear that the installation of a fishing access area was pre-planned during the time the dam was renovated and intended for public safety and relations and not as mitigation for the March 1991 incident. Nonetheless, the licensee agreed to supplement the original mitigation plan by providing additional compensatory mitigation for resource management on project waters.

In order to determine the appropriate compensatory mitigation, the magnitude of the environmental impact had to be assessed. The IDFG estimated the number of fish killed based on approximations made in a 100 yard reach of the river. The IDFG stated that a "quick estimate" was made as river flows began to increase and fish were washed downstream. The IDFG extrapolated the 12 to 15 adult and 30 to 40 juvenile dead fish in the 100 yard reach for the entire river reach of 11,264 yards (6.4 miles) between Ashton Dam and the confluence with Fall River. There is no data to support that assumption for the entire river reach.

The total assessed value of the fish killed was $6,996. Instead of direct replacement of the fish or aquatic habitat improvements, the IDFG proposed that the licensee provide compensatory mitigation to support a biological aide position for five months annually over a five year period. The IDFG stated that a commitment from the licensee of $5,287 per year, or $26,435 over five years, would be required.

The licensee does not contest that a low flow violation occurred or that it was caused by operator error. The licensee disagrees with the IDFG's estimate of the fish killed. However, the licensee did not submit any data or evidence to dispute the IDFG's estimate only that no dead fish were removed from the trash racks at the St. Anthony Development. Both parties do agree, however, that there were dead fish below the Ashton Dam as witnessed by the District Conservation Officer.

Conclusion

Given the methodology for calculating the number of fish killed on March 14, 1991, the IDFG's estimate could be considered a general approximation. The IDFG's recommendation of a five-year research and management program valued at $26,435 is not consistent with the $10,000 value assessed for the fish loss. The licensee, however, agreed to the concept of the cooperative management program and stated they could support a limited version. The cooperative program between the licensee and the IDFG supports the common objectives of providing compensatory mitigation for the March 1991 low flow incident. The cooperative management program commits the licensee and IDFG to working together in order to conduct fishery research and improve resource management in project waters.

The licensee's supplemental mitigation plan, to allocate $10,000 to the IDFG for research and management activities on project waters, is more in line with IDFG's assessed value of the fish killed. Therefore, the compensatory mitigation plan, filed with the Commission on February 28, 1994, as modified below, should be approved.

The licensee did not state how or when such funds would be made available to the IDFG. Therefore, the licensee should consult with the IDFG to arrange a mutually acceptable payment schedule. The licensee should file, with the Commission by December 31, 1995, the agreed upon payment schedule or verification that $10,000 has been paid in full to the IDFG for fishery management activities on the Ashton Reservoir and the Henry's Fork of the Snake River below Ashton Dam. Any comments from the IDFG should be included with the licensee's filing.

The Director Orders:

(A) The supplemental compensatory mitigation plan for the Ashton Dam Project, FERC No. 2381, filed on February 28, 1994, by Pacificorp (licensee), as modified in paragraph B, is approved.

(B) The licensee shall file with the Commission, by December 31, 1995, a report that documents consultation with the Idaho Department of Fish and Game (IDFG) regarding a mutually acceptable payment schedule of $10,000, or confirmation of payment in full, to the IDFG for fishery management activities on the Ashton Reservoir and the Henry's Fork of the Snake River below Ashton Dam. Any comment letters from the IDFG shall also be included in the licensee's filing.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

132 FERC ¶ 62,026
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp Energy Project Nos. 2381-062

ORDER AMENDING TEMPORARILY LICENSE ARTICLES 401 AND 402

(Issued July 12, 2010)

1. On April 20, 2010, PacifiCorp Energy (PacifiCorp or licensee) filed a license compliance, consultation and permitting report in support of its proposed dam remediation project at the Ashton-St. Anthony Hydroelectric Project (FERC No. 2381). In the licensee's filing, the licensee proposes temporary operational changes to address environmental issues associated with remediation work at the Ashton Dam. The Ashton-St. Anthony Project is located on the Henry's Fork of the Snake River in Fremont County, Idaho.

BACKGROUND

2. The safety and performance of Ashton Dam has been under extensive review and analysis due to concerns over seepage and piping issues. PacifiCorp and their engineering and geotechnical consultants have developed a remedial repair plan to address the seepage and piping concerns. The repair plan includes the removal and replacement of the upstream half of the dam. In order to complete the proposed work, the licensee must construct a diversion tunnel in the right abutment and then construct a cofferdam to dewater the reservoir to provide access to the upstream half of Ashton Dam. These activities involve temporary changes in project operation and license requirements.

LICENSE REQUIREMENTS

3. License article 401[1] requires the licensee to operate the Ashton Development in an instantaneous run of river mode for the protection of fish and wildlife resources in the Henry's Fork. Further, the licensee is required to minimize the fluctuation of the reservoir surface elevation at all times so that flow in the Henry's Fork as measured immediately downstream from the powerhouse tailrace, approximates the instantaneous sum of the inflow to the project reservoir. Run of river operation may be temporarily modified for operating emergencies and for short periods of time upon mutual agreement with the Idaho Department of Fish and Game (IDFG).

[1] *See* Order Issuing New License. Issued August 3, 1987. 40 FERC ¶61,139.

4. License article 402 states, in part, that licensee shall implement the fishery mitigation plan for the Ashton Reservoir as defined in Section 3 of Exhibit 3 filed with the Federal Energy Regulatory Commission (Commission) on December 31, 1984. The plan includes collection of baseline data, introduction and stocking of trout, population inventories, long-term predictions, and continued fishery enhancements.

LICENSEE'S PROPOSED WORK AND OPERATION CHANGES

5. The licensee proposes to rehabilitate Ashton Dam from 2010 to 2012 to reduce current seepage and piping (i.e. internal erosion) risks associated with internal erosion of the silt core to tolerable levels. The licensee stated that the selected alternative to rehabilitate the dam consists of removing and reconstructing a portion of the upstream portion of the existing embankment with zoned granular filters and compacted earth fill. This proposal includes establishing a low-level outlet to lower the reservoir and to serve as a river diversion channel during construction. The design and construction consists of the following key components:

- Construction of a low-level diversion tunnel and control structure through the right abutment bedrock in 2010.
- Construction of an upstream cofferdam utilizing the existing rockfill within the upstream embankment.
- Excavation and removal of most of the upstream portion of the existing dam including the core in 2011.
- Construction of a zoned earth embankment upstream of the remaining rockfill, including a low permeability core, embankment and foundation filters, and upstream rockfill buttress in 2011.
- Construction of a new reinforced concrete headrace retaining wall.
- Construction of a new concrete emergency spillway crest structure.
- Placement of a concrete overlay on a currently exposed, downstream rockfill slope.
- Refurbish or modify various ancillary structures including the powerhouse buttresses, the tailrace wall, the spillway piers and gates, and the redesign and replacement of the left abutment bridge.

6. PacifiCorp proposes to temporarily modify article 401 to allow for reservoir draw downs and refilling. During the 2010 to 2012 construction window, the licensee stated that it will need to drawdown and refill the reservoir three times to facilitate construction activities; and therefore will require the suspension of the run-of-river mode of operation during these times.

7. PacifiCorp proposes the following guidelines for drawing down and refilling the reservoir. PacifiCorp will provide the consulting parties one-week notice prior to a drawdown or refill event (suspension of run-of-river mode). Downstream flow changes will be monitored using real-time data (hourly update from the U.S. Geological Survey (USGS) gage no. 13046000) and the new reservoir capacity table produced from the

Reservoir Bathymetry and Sediment Deposition Study. The licensee proposes that drawdown flow changes below the dam will be limited to a target increase of 100 cubic feet per second (cfs) or less in one hour, and a 24 hour total change target of 200 cfs or less. The licensee further proposes that the maximum differential between inflow and outflow during drawdown events not exceed 600 cfs. Additionally, the licensee proposes that refill event flow changes below the dam will be limited to a decrease in outflow of 100 cfs per hour, not to exceed 200 cfs decrease in outflow in a 24-hour period, and that the maximum differential between inflow and outflow will not exceed 200 cfs during refill events.

8. PacifiCorp proposes to provide a drawdown/refill event table to IDFG, Idaho Department of Water Resources, Idaho Department of Environmental Quality (IDEQ), U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers (Corps), and the Henry's Fork Foundation within two weeks of the completion of a drawdown/refill event. The licensee stated that the table will show 72 hours of downstream flow data from the USGS gage while the project is in the run-of-river mode before commencement of a drawdown/refill event. The licensee added that hourly flows released from the project will be reported as well as flow change points will be noted on the table along with the point in time that run-of-river mode is resumed. The licensee also proposes to provide daily average computed inflow based on the reservoir capacity table, reservoir elevations and outflow as measured at the downstream USGS gage.

9. With respect to license article 402 the licensee proposes to redirect its annual fish stocking funds in 2010, 2011 and 2012 on upgrades to fish rearing facilities at the Ashton Hatchery. The licensee proposes that the funds not exceed $30,000 per year and must be requested by written invoice from the IDFG on or before October 31 of each year. The licensee proposes that if the payment of funds for that calendar year are not requested by October 31, they would not be made available for that year or carry into future years. The licensee recommends that IDFG provide an annual summary report of improvements made to the hatchery with the funds.

RESOURCE AGENCY CONSULTATION

10. The licensee consulted with the FWS and the IDFG concerning the proposed temporary changes to license articles 401 and 402, and as part of its permitting and public information responsibilities, the licensee also consulted with U.S. Army Corps of Engineers (Corps), Idaho Department of Environmental Quality, Idaho Department of Water Resources, Fremont County Department of Recreation, Fremont County Commissioners, Henry’s Fork Foundation, and local irrigators.

11. By letter dated January 28, 2010, the FWS stated that consultation under section 7 is not needed; however, fluctuations in the reservoir water levels have the potential to affect migratory birds, which are protected under the Migratory Bird Treaty Act (MBTA). The FWS recommended that the licensee identify and implement measures to assure the project complies with the MBTA.

12. In response to the FWS's recommendation, the licensee indicated that it has modified its reservoir drawdown schedule for the 36-month project. Originally, the licensee stated, it had scheduled in 2010 and 2012, early year draw down events during potential waterfowl nesting times. Subsequently, the licensee added, it has moved the start and completion date of these early year draw down events to start approximately March 15 and be completed by April 1 to assure it does not change water levels after waterfowl have nested.

13. By letter April 1, 2010, the IDFG stated that using the USGS gage to measure flow changes downstream of the Ashton Dam is acceptable; however, the IDFG recommends that PacifiCorp investigate the feasibility of using USGS gage no. 13045796, located above the project, to measure real-time inflow into the reservoir rather than computing the average daily inflow based on a reservoir capacity table to be developed from the proposed bathymetry study (back-calculating).

14. Also, the IDFG stated that is does not believe one week is adequate for notification of the public regarding drawdown and refill events. The IDFG stated that these events should be foreseeable; therefore, the IDFG recommended the notification period be increased to 30 days and modified in case of an emergency. The IDFG's comments and licensee's response are discussed further in the next section.

15. Regarding article 401 and 402, the IDEQ expressed concerns regarding sediment transport during drawdown events. PacifiCorp agreed to collect information during the summer of 2010 to characterize the sediment to the extent possible and to make the information available for planning the deeper reservoir drawdown events scheduled for late 2010 and for most of 2011. The licensee stated it would consult with IDEQ and IDFG concerning the potential sediment transport and impaired downstream water quality during drawdown events. If warranted, based on the potential for impacts, PacifiCorp stated it would work with the agencies to identify feasible measures that could be incorporated into the project plans for reduction of the potential for water quality impacts.

16. By email dated February 24, 2010, the IDWR commented on preliminary information concerning a downstream cofferdam intended to control turbidity in the Henry's Fork as a result of repair and maintenance at the Ashton Dam. The IDWR added that since the activity is outside the reservoir project boundary, the IDWR will require a Stream Channel Alteration Permit for the proposed work that may affect the bed and bank of the Henry's Fork. No comments were received concerning articles 401 or 402.

17. By letter dated February 23, 2010 the Corps stated that maintenance and repair work on the Ashton Dam facility is subject to their jurisdiction under Section 404 of the Clean Water Act and a Department of the Army permit is required for your project. The February 23 letter provided authorization under the terms and conditions of Nationwide Permit 3 and specified conditions for the licensee to implement.

18. Lastly, the Henry's Fork Foundation stated that it is concerned with the potential for a sediment release when Ashton Reservoir is drawn down for the Ashton Dam remediation project. The Henry's Fork Foundation added that the licensee should proceed with planning for the Ashton Dam remediation project in full cooperation with the Idaho Department of Fish and Game and the Henry's Fork Foundation in order to ensure that the dam repair process be fully informed and have a minimal environmental impact.

DISCUSSION AND CONCLUSION

19. The Commission's Division of Dam Safety and Inspections has determined that the Ashton Dam is in need of remedial repairs to correct seepage and piping issues occurring at the development. The work is extensive and will occur over the next three years. During this time, in order to facilitate the construction work, the project will need to occasionally operate outside the requirements of its license. Two of those parameters are license articles 401 and 402, pertaining to run of river operation and fishery mitigation activities, respectively.

20. In terms of measuring inflow during the construction period, the IDFG recommended that the licensee consider using a USGS gage located above the project to measure real-time inflow into the reservoir rather than back calculating inflow by computing the average daily inflow based on a reservoir capacity table. The licensee did not indicate its acceptance of this method. Commission staff's review of the USGS's webpage indicates that the gage is currently not available to provide data; however, if the gage becomes active, the licensee should use the upstream gage to measure inflow instead of back calculating inflow into the Ashton Reservoir.

21. The IDFG also stated that the licensee should provide more than one week notice to the agencies and public regarding drawdown and refill events. The IDFG stated that these events should be foreseeable and recommended the notification period be increased to 30 days unless an emergency arises. Indeed, the licensee's proposed reservoir elevation schedule identifies specific dates for the reservoir draw downs and refill through December 23, 2013.

22. In the course of consulting and developing the remediation project, the licensee has established an email notification list for the resource agencies and interested parties. The licensee's filing included a reservoir elevation schedule that depicted three major drawdown and refill events for 2010 through 2012. Providing the resource agencies and interested parties a 30-day notification of an impending drawdown or refill will allow the parties and their constituents opportunity to prepare for the event and perhaps request a slight adjustment for protection of fish and wildlife resources. Since the 30-day advance notice date of a drawdown or refill may change due to unforeseeable weather conditions or construction variables, the licensee should also provide the consulting parties one week notice prior to a drawdown or refill event as proposed in its April 20 filing. Any additional draw down not depicted on the March 4, 2010 graph of the licensee's April 20,

2010 filing must be reported 45 days in advance to the Commission. Any nonscheduled drawdown must be reported immediately to the Commission.

23. The licensee must undertake remedial actions to maintain the Ashton Dam. During the course of the remediation work, the licensee will need to modify project operation. The licensee has consulted with the resource agencies and interested parties and developed a plan to temporary modify license article 401 and 402 during the three year construction period. The licensee's proposed changes should facilitate the remediation of the Ashton Dam and accordingly, the licensee's proposed temporary changes to license articles 401 and 402, as modified, should be approved.

The Director Orders:

(A) PacifiCorp Energy's (licensee) April 20, 2010 filing of proposed temporary changes to license article 401 concerning scheduled draw downs and refilling of the Ashton Reservoir, as part of the Ashton Dam remediation work at the Ashton-St. Anthony Hydroelectric Project, as modified in paragraph (C), is approved.

(B) The licensee's proposed changes to the fisheries mitigation plan approved under license article 402 for 2010, 2011 and 2012 is approved.

(C) The licensee shall provide U.S. Army Corp of Engineers, State Historic Preservation Office, U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, Idaho Department of Environmental Quality, Idaho Department of Water Resources, Henry's Fork Foundation, Fremont Department of Recreation, Fremont Madison Irrigation District and other local irrigators, a 30-day notification of any impending drawdown or refill event during the three year remediation project. Further, since the 30-day advance notice date of a drawdown or refill event may change due to unforeseeable circumstances, the licensee shall also provide one week notice to the consulting parties prior to the actual drawdown or refill event. Any additional draw down event not depicted on the March 4, 2010 graph of the licensee's April 20, 2010 filing shall be reported 45 days in advance of the event to the Commission, and any nonscheduled/emergency drawdown must be reported immediately to the Commission.

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR § 385.713.

Thomas J. LoVullo
Biological Resources Branch
Division of Hydropower Administration
and Compliance

Document Content(s)

UNITED STATES OF AMERICA 70 FERC 62, 080
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp Project No. 2381-031
Idaho

ORDER APPROVING FISH PASSAGE MONITORING RECOMMENDATIONS
FEBRUARY 10, 1995

On July 25, 1994, PacifiCorp (licensee) filed the results of the upstream fish passage facility (fishway) monitoring program, under paragraphs C and D of the Commission's September 14, 1993 order1 and article 403 of the license for the Ashton-St. Anthony Hydroelectric Project.

Background

Article 403 requires the licensee to develop, construct, and monitor a fishway at the Egin Diversion Dam in St. Anthony, Idaho. The fishway was designed to pass salmonids upstream all year long and the monitoring was done during the peak of the upstream migration in early spring (about the last 2 weeks in March). The Commission's September 1993 order required the licensee to monitor the effectiveness of the constructed fishway, and make recommendations if any changes were needed to improve the performance of the facility. The results and recommendations were to be filed with the Commission for approval, with the comments of the Idaho Department of Fish and Game (IDFG) and the U.S. Fish and Wildlife Service (FWS).

The Commission's September 1993 order required the licensee to file a report of monitoring results. If the fishway was not effective (paragraph C), the licensee was required to propose changes to the fishway or the operation of the fishway with a revised operation plan for 1995, for Commission approval. If the fishway is effective (paragraph D), the licensee was required to file a final report for Commission approval, with recommendations on long-term maintenance and operational procedures. Both reports were required to be filed with the comments of the FWS and IDFG. The Commission reserved the right to require changes to the filed set of recommendations and, if needed, require modification to, or relocation of, the fishway.

Licensee's Report and Recommendations

The licensee's report indicated that, during the 12 monitoring days in 1994, the fishway had a 475 percent increase in the number of fish moved upstream over the number of fish in

1 64 FERC 62,180, Order Approving and Modifying Fish Passage Monitoring Plan.

1991. The licensee counted 290 fish in 1994 and 61 fish in 1991 (over 17 monitoring days). The licensee stated that the fishway was effective in passing fish from 6 to 26 inches long at a variety of river flows. The licensee recommended that the fishway was adequate as designed and installed.

The licensee recommended six annual (long-term) operations and maintenance procedures as required by paragraph D of the September order.

1) Annual inspections would be conducted on or about February 1. Any needed maintenance work would be prior to the March fish migration. The IDFG would be notified of the proposed inspection date to allow for a joint inspection.

2) From February 20 through April 10 annually, the licensee would take daily water temperature readings, and would inspect the fishway to remove debris and ensure proper flows.

3) During the approximate month when the Henry's Fork water temperature is at 40ø Fahrenheit, the licensee would inspect the fishway daily for debris obstructions. Flows at other locations on the dam would be reduced to minimize false attraction flows.

4) The spill slots would be adjusted by the licensee to provide sufficient attraction flows all year.

5) During the rest of the year the licensee would inspect the fishway at least once a month, and required maintenance work would be completed in a timely manner.

6) The yearly maintenance records for the passageway, the spillway, and the annual daily water temperature logs would be kept on file at the St. Anthony Hydro Plant.

Agency Comments

The FWS and IDFG, in letters dated June 20 and 27, 1994, respectively, both concurred that the fishway is operating effectively and with the licensee's recommendations. The FWS and IDFG did suggest that the licensee conduct the annual inspection of the fishway, in conjunction with the IDFG, just before the start of the migration period.

The licensee agreed to the FWS and IDFG comments and included them in their recommendations outlined above.

Discussion and Conclusions

The licensee's report indicates that the fishway is effectively attracting and enabling the upstream passage of salmonids in the Henry's Fork of the Snake River. The licensee's program recommendations should ensure that the fishway is accessible, unobstructed, and the preferred holding location below the dam, for salmonids, during the peak of the upstream migration.

The licensee's report and recommendations, for the long-term maintenance and operation of the fishway, under the requirements of article 403 and paragraphs C and D of the Commission's September 14, 1993 order, adequately fulfill these requirements. Therefore, the licensee's long-term fishway operation and monitoring recommendations, filed on July 25, 1994, under article 403 of the Ashton-St. Anthony Hydroelectric Project license, and paragraphs C and D of the Commission's September 14, 1993 order, should be approved.

The Director orders:

(A) The licensee's long-term upstream fish passage facility operation and monitoring recommendations, filed on July 25, 1994, under article 403 of the Ashton-St. Anthony Hydroelectric Project license, and paragraphs C and D of the Commission's September 14, 1993 order, are approved.

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. 385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

76 FERC ¶ 62,176

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp) Project No. 2381-035

ORDER MODIFYING AND APPROVING REVISED WILDLIFE ENHANCEMENT PLAN

SEP 10 1996

On December 29, 1995, PacifiCorp (licensee) filed a revised wildlife enhancement plan for the Ashton-St. Anthony Project. The licensee changed its wildlife enhancement program, deleting some measures required by its current plan and adding other measures in substitution. By letter dated April 11, 1995, the Director, Division of Project Compliance and Administration (Director) required the licensee to file a revised plan, for Commission approval, because of these changes.

The Ashton-St. Anthony Project consists of two developments in Fremont County, Idaho. The Ashton development is located on the Henry's Fork of the Snake River. The St. Anthony Development is located on the Egin Irrigation Canal, a diversion of the Henry's Fork.

BACKGROUND

The Commission issued a license for the project on August 3, 1987. 1/ Article 405 required the licensee to consult with Idaho Fish and Game (IFG) and the U.S. Fish and Wildlife Service (FWS) and file a wildlife enhancement plan based on enhancement measures proposed in the application for license. The licensee filed a plan on June 28, 1990, which was modified and approved by a Director's order dated August 15, 1990. 2/ The licensee filed a supplement to the plan on October 1, 1990, which was modified and approved by a Director's order dated March 13, 1991. 3/

REVISED WILDLIFE ENHANCEMENT PLAN

The licensee's revised plan is designed to supersede its currently approved plan. The revised plan contains all enhancement measures in the approved plan and those measures that are either new or were modified by the licensee in consultation with IFG and the FWS. Major components in the revised plan include:

1/ 40 FERC ¶ 61,139.

2/ 52 FERC ¶ 62,126.

3/ 54 FERC ¶ 62,166.

A. Ashton Reservoir

The licensee put up 3.7 miles of cattle fencing along the shoreline of Ashton Reservoir. Fencing allows the licensee to control grazing on selected riparian and upland areas, allowing vegetation to regrow, enhancing wildlife habitat. Twenty acres of land, enclosed by the licensee's fences, were planted with native trees and shrubs to speed the regrowth of vegetation. A 5.7-acre area is annually planted with alfalfa-bluegrass to provide goose forage. This area is also located adjacent to Ashton Reservoir within the licensee's fencing. Further, the licensee installed 15 raptor perches, 10 osprey nesting platforms, and 1 bald eagle nesting platform around the shoreline.

B. Wetland/Upland Complex

The licensee acquired conservation easements on 250 acres of an upland/wetland complex, privately owned by 5 landowners, located about 1 mile to the southeast of Ashton Reservoir. The easements prohibit changes to these lands which would diminish their current value for wildlife; for example, actions like expanding agricultural land for farming and building homes or other structures are prohibited. The licensee also acquired grazing rights to control cattle grazing on a total of 176 acres of land within and adjacent to the above 250-acre area. The conservation easements and grazing rights together allow the licensee to manage the above lands for wildlife purposes.

C. Sand Creek Wildlife Management Area (SCWMA)

The licensee put up 2.0 miles of cattle fencing at the SCWMA, located about 10 miles northwest of Ashton Reservoir, to control grazing and allow riparian and upland areas to regrow. The SCWMA is owned and operated by IFG. Further, the licensee installed 10 goose nesting platforms at various locations within the SCWMA.

D. Monitoring

The licensee filed annual monitoring reports by December 31, 1991 through 1995 in accordance with its approved plan. After 1995, the approved plan requires the licensee to file monitoring reports every 5 years beginning December 31, 2000, for the term of the license. Monitoring reports must be submitted to IFG and the FWS for comment prior to being filed with the Commission. The licensee proposes to continue this reporting schedule in the revised plan. The licensee's next monitoring report would be due December 31, 2000.

CONSULTATION

The revised plan is the result of extensive negotiations among the licensee, IFG, and the FWS. The IFG and FWS agreed to the plan by separate letters dated November 30, 1995.

DISCUSSION

The licensee's revised plan incorporates all changes made to its wildlife enhancement program as required by the Director's April 11, 1995 letter. These changes include additional fencing and the acquisition of grazing rights, measures agreed upon by IFG and the FWS in lieu of other measures the licensee wished deleted. Additional fencing and the acquisition of grazing rights will allow the licensee to control grazing in important riparian and wetland areas, enhancing habitat for breeding, foraging, and roosting wildlife. These measures are appropriately included in the revised plan.

The licensee states in its plan that the 5.7-acre goose forage area, wetland/upland complex, and those features at the SCWMA are not within the project boundary. In accordance with §4.51(h)(2) of the Commission's regulations, the project boundary must enclose those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources (See Order on Rehearing for the Skagit River Project where the Commission required the City of Seattle, Washington to include off-site habitat and recreation areas within the project boundary as project "islands" because these lands were necessary for project purposes under §4.51(h)(2)). 4/

Consequently, the project boundary should be revised to include the wildlife enhancement features in the licensee's revised plan. The boundary should be amended to include as many of these features as are reasonable given the nature of these features. As such, the boundary around Ashton Reservoir should be expanded to include all those lands being enhanced for wildlife by the construction of fences and by planting native vegetation and goose forage. Project boundary "islands" should be drawn around the wetland/upland complex. The project boundary should not be expended for the sole purpose of including individual osprey and bald eagle nesting or perch structures. The boundary should not include individual goose nesting structures or fenced areas at the SCWMA. Ordering paragraph (B) requires the licensee to file revised exhibit G drawings showing the above lands and features in the project boundary.

4/ Order on Rehearing dated June 26, 1996 at 75 FERC ¶61,319.

CONCLUSION

The licensee's revised wildlife enhancement plan incorporates those changed and unchanged provisions in the licensee's current plan and should be approved with Commission staff's modification to file revised exhibit G drawings.

The Director orders:

(A) The licensee's revised wildlife enhancement plan filed December 29, 1995 is approved as modified by paragraph (B) below. The Commission reserves the right to require changes to the plan.

(B) Within 90 days from the date of this order, the licensee shall file, for Commission approval, revised exhibit G drawings showing those lands and features in the licensee's revised wildlife enhancement plan in the project boundary as discussed in this order.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. §385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

APPENDIX C

KEY RESOURCE AGENCY AND NGO DOCUMENTS REFERENCED IN THIS REVIEW REPORT

STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE

DIVISION OF ENVIRONMENT
Statehouse
Boise, Idaho 83720

May 10, 1985

Mr. Thomas W. Haslip, Jr.
CH_2M-Hill
700 Clearwater Lane
Box 8748
Boise, Idaho 83707

REFERENCE TO: FERC #2381, Utah Power and Light, Ashton and St. Anthony Hydroelectric Projects, Henry's Fork Snake River, Fremont County, Idaho

Gentlemen:

We have reviewed the "Exhibit E" portion of the Federal Energy Regulatory Commission application for license for the above referenced projects and your April 23, 1985 response to our concerns regarding the project. The Division of Environment finds that as long as environmental impacts are minimized during construction and subsequent erosion of disturbed soil is controlled, the facilities will not impact the water quality of the Henry's Fork Snake River.

From this determination, we certify under Section 401 that this construction will comply with applicable requirements of Sections 301, 302, 303, 306 and 307 of PL 92-500 and will not violate Idaho Water Quality Standards and Wastewater Treatment Requirements.

This certification does not imply approval of the activity by other agencies of the State of Idaho.

Sincerely,

Lee W. Stokes, Ph.D.
Administrator

LWS:lab

cc: Al Murrey/Larry Koenig
Gordon Hopson/Mark Torf
Fred Springer, FERC

PACIFICORP ENERGY
A DIVISION OF PACIFICORP

Grace Hydro Plant
822 Grace Power Plant Road
Grace, Idaho 83241

DATE: February 12, 2010

TO: Ty Matthews
Fish and Wildlife Biologist
USDA Fish and Wildlife Service
Eastern Idaho Field Office
4425 Burley Dr, Suite A
Chubbuck, ID 83202

RE: PacifiCorp transmittal of revised reservoir elevation graph for the Ashton Dam remediation project. FERC Project No. P-2381.

Dear Mr. Matthews,

We appreciate Damien Miller and you taking the time to respond quickly to our January 22, 2010, request for consultation on federally listed threatened or endangered species.

You stated in your letter that the fluctuation in the reservoir levels have the potential to affect migratory birds which are afforded protection under the Migratory Bird Treaty Act (MBTA). You recommended that we identify and implement measures to assure the project complies with the MBTA.

In response to this request, we have modified our reservoir drawdown schedule for the 36-month project. In 2010, and 2012, we had originally scheduled our early year draw down events during potential waterfowl nesting times. We have moved the start and completion date of these early year draw down events to start approximately March 15 and be completed by April 1. This will assure that we do not change water levels after waterfowl have nested.

Again, thanks for your timely input as it allows us to make conscientious plans to protect natural resources while we move forward with this compulsory dam safety project.

Please feel free to call or email with any questions.

Sincerely,

Mark Stenberg
PacifiCorp Energy
Hydro License Program Manager – Idaho
208 852-5507
mark.stenberg@pacificorp.com

Attachment: Revised Reservoir Elevation Graph

cc: Damien Miller, Supervisor, Eastern Idaho Field Office; Hydro Document Services; Bob Atwood, Senior Project Manager; Roger Raeburn, Manager Asset Planning & Dam Safety; Jack Kolkman, Hydro East Plant Manager; Jim Burruss, FERC Compliance Analyst; Eve Davies, Senior Scientist.

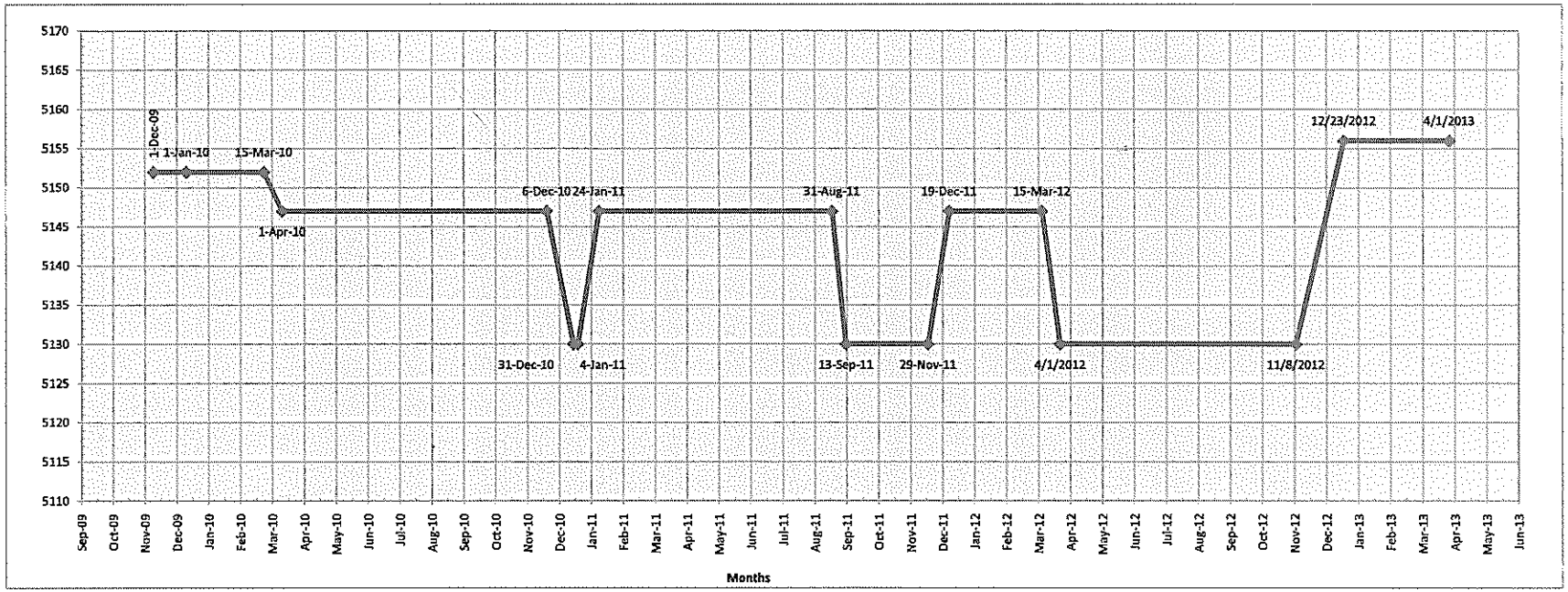
Ashton Dam Remediation Project

Ashton, Idaho

Ashton Reservoir Elevation Schedule

2010 - 2012

Jan. 28,2010 DRAFT



Date	Res. Elv.	revision 1
1-Dec-09	5152	
1-Jan-10	5152	
15-Mar-10	5152	for nesting
1-Apr-10	5147	for nesting
6-Dec-10	5147	
31-Dec-10	5130	
4-Jan-11	5130	
24-Jan-11	5147	
31-Aug-11	5147	
13-Sep-11	5130	
29-Nov-11	5130	
19-Dec-11	5147	
15-Mar-12	5147	for nesting
4/1/2012	5130	for nesting
11/8/2012	5130	
12/23/2012	5156	
4/1/2013	5156	

THE HENRY'S FORK
FOUNDATION, INC.

Mailing Address
P.O. Box 550
Ashton, ID 83420

phone 208-652-3567
fax 208-652-3568
email hff@henrysfork.com

Headquarters
606 Main Street
Ashton, ID 83420

Watershed Center
604 Main Street
Ashton, ID 83420

January 28, 2010

Robert Atwood
PacifiCorp Energy
825 N.E. Multnomah, 1500 LCT
Portland, OR 97232

Dear Mr. Atwood,

We appreciate your participation in last month's Henry's Fork Watershed Council conference. The information presented by Roger Raeburn and yourself regarding the upcoming Ashton Dam remediation is of vital interest to the Henry's Fork Foundation. For over 25 years, the Henry's Fork Foundation has been considered the voice of the river, and our 3,000 members nationwide count on the Foundation to be the steward of the river.

The value of the Henry's Fork as a wild trout fishery, recreational resource, and source of irrigation water to farmers cannot be overstated. A 2003 study by the Idaho Department of Fish and Game found that fishing on the Henry's Fork contributes nearly $27 million to the Fremont County economy ($51 million if the lakes and reservoirs are included), and that the sport fishing economy in Fremont County is the most valuable to the local economy of all counties in the fishing-rich State of Idaho. Fishing in the lower river, which primarily means that section between Ashton Dam and the town of St. Anthony, accounts for nearly 25% of the angler use on the Henry's Fork. A 2005 study found that anglers travelled an average of 500 miles, one-way, to fish this section of the Henry's Fork.

The river reach immediately downstream from Ashton Dam is of critical importance to the lower river trout fishery as a whole. Rainbow trout and brown trout are the primary fish species inhabiting this section of the river, with Yellowstone cutthroat trout, mountain whitefish, and other native species also present. This reach is extremely important rainbow and brown trout spawning habitat; indeed, the Idaho Department of Fish and Game closes this section to fishing during the spring to protect spawning fish (the rest of the lower river is open to fishing year-round). When the fishing season does open in late May, fish harvest is strictly limited, resulting in essentially a catch-and-release fishery.

The Henry's Fork Foundation is especially concerned with the potential for a sediment release when Ashton Reservoir is drawn down for the Ashton Dam remediation project. To our knowledge, it has been nearly 85 years since the

reservoir was drawn down to the 5130-foot level. How much sediment has accumulated at the bottom of Ashton Reservoir is unknown, but it could be a significant amount. The experience at other reservoirs that have been drawn down has shown that rivers often start mobilizing sediment, and even cutting a new channel through accumulated sediment, long before the reservoir reaches the desired minimum pool. At Ashton Reservoir, this mobilized sediment would be delivered to the critical spawning habitat immediately downstream of the dam, potentially destroying much of that habitat, and the fishery that depends on it, for many years to come.

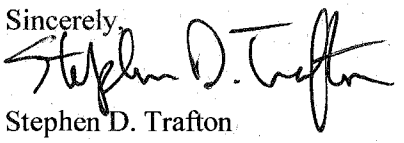
The Henry's Fork has already suffered a number of well-publicized sediment-related catastrophes. The incident that is foremost in the mind of the Foundation, and in the minds of countless others who fish and care about the Henry's Fork, took place at Island Park Reservoir in 1992. In that case, Island Park Reservoir was drawn down and a heavy sediment load was released into the river below Island Park Dam. This had a devastating, long-term impact on the world-renowned fishery in the Harriman State Park ("Railroad Ranch") section of the river. Nearly twenty years later, this section has not fully recovered, and much of the trout habitat is still filled in with silt from the 1992 incident.

The Foundation is gravely concerned about the risk of a major sediment release from Ashton Reservoir. Sediment has been accumulating in the reservoir for 85 years, from upstream sources that include two entire tributary watersheds, Robinson Creek and the Warm River. Sediment conditions in Ashton Reservoir must be carefully assessed, the results of that assessment must be incorporated into the reservoir drawdown plan, and the drawdown must be conducted in a way that does not place the lower Henry's Fork and its resources, fisheries and otherwise, in jeopardy.

The Henry's Fork immediately below Ashton Dam is the only reach of the river that has not been harmed by a major sediment event in recent history. At Island Park Dam, sediment releases of similar magnitude to that of 1992 also took place in 1966 and 1979. The river above Island Park Reservoir has suffered from the effects of human-caused erosion and deposition for the past eighty years. A large canal breach dumped a massive amount of sediment into the Fall River, a major tributary of the lower Henry's Fork, in 1992. Below St. Anthony, the 1976 Teton Dam failure irrevocably damaged the trout fishery below the confluence of the North Fork of the Teton River and the Henry's Fork. We cannot afford to have a similar incident on the irreplaceable section of river below Ashton Dam.

The Henry's Fork Foundation encourages PacifiCorp to proceed with planning for the Ashton Dam remediation project in full cooperation with the Idaho Department of Fish and Game and the Henry's Fork Foundation (if not with others), in order to ensure that the dam repair process be fully informed and have a minimal environmental impact. We have tremendous resources at the Foundation to aid in this process, and we place them at your disposal. Thank you for your attention to this matter, and we look forward to hearing from you soon.

Sincerely,



Stephen D. Trafton
Executive Director

cc: Gary Vecellio, Idaho Department of Fish and Game
Thomas J. LoVullo, Federal Energy Regulatory Commission

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

In the matter of:	)	**Consent Order**
	)	**Idaho Code §39-108**
PacifiCorp Energy	)	
Ashton Dam Remediation Project	)	
	)	
	)	

1. Pursuant to Idaho Code § 39-108 (Idaho Environmental Protection and Health Act) and the Idaho Water Quality Standards (IDAPA 58.01.02) the Idaho Department of Environmental Quality (Department) enters into this Consent Order with PacifiCorp Energy (PacifiCorp).

2. The Ashton Dam is located on the Henrys Fork of the Snake River near Ashton, Idaho. The Ashton Dam is part of a Federal Energy Regulatory Commission (FERC) licensed hydroelectric facility owned and operated by PacifiCorp (FERC Project Number P-2381.) Due to concerns about the structural integrity of the dam, FERC has required PacifiCorp to do work on the dam. Specifically, construction activities include:

a. Build a low-level diversion tunnel and upstream coffer dam;
b. Excavate and remove existing upstream portion of the dam;
c. Construct a downstream coffer dam for maintenance work on powerhouse concrete, this will be upstream from tunnel outlet;
d. Construct a zoned embankment including a low permeability core, foundation filters and buttresses;
e. Construct a new concrete crest;
f. Place concrete overlay on currently exposed rockfill slopes; and
g. Refurbishment or modification of dam structures including the powerhouse, buttresses, tailrace well, spillway piers, and gates.

This work may result in short term deviations from the Idaho Water Quality Standards (WQS). The WQS, IDAPA 58.01.02.080.02, provide that the Department may authorize, with whatever conditions deemed necessary, short term activities even though such activities can result in a violation of the WQS, as long as the activity is essential to the protection or promotion of the public interest, and no permanent or long term injury of beneficial uses is likely as a result of the activity. An example provided in the WQS of an activity that may be eligible for a short term activity exemption is the maintenance of an existing structure. In an application dated January 5, 2010, PacifiCorp requested the Department issue a short term activity exemption for the Ashton Dam work.

3. The Department has determined that the remediation work on the dam is essential to the protection or promotion of the public interest, and will not likely result in

permanent or long term injury of beneficial uses. Therefore, pursuant to IDAPA 58.01.02.080.02, the Department hereby grants a Short Term Activity Exemption (STAE) from the WQS for the discharge of pollutants into waters of the State and other changes in water quality resulting from PacifiCorp's work on the Ashton Dam (PacifiCorp's work on the Ashton Dam is hereinafter referred to as the "Project"). This STAE is conditioned upon PacifiCorp's compliance with the description of the project in the application for the STAE, or subsequent submittals of updated information, and the terms and conditions set forth below in this Consent Order.

4. Prior to commencing tunnel lake tap construction (first reservoir drawdown event from Elevation 5147 feet to 5130 feet), PacifiCorp shall:

a. Submit a scope of work and schedule for a Reservoir Bathymetry and Sediment Deposition Study (Sediment Study) to the Department for review and approval. This shall include measurements of upstream sediment distribution and a sediment transport analysis;
b. Submit to the Department the results of the Sediment Study and a description of measures in a draft Water Quality Management Plan to reduce impacts from the Project to water quality and beneficial uses;
c. Submit to the Department a Water Quality Monitoring Plan and Spawning Gravel Assessment Plan to assess the impacts of the Project to water quality and beneficial uses. The plans will include but not be limited to:

i. Two (2) real-time stations to monitor background turbidity and project generated turbidity. Monitoring will be conducted per the approved Water Quality Monitoring Plan. Prior to commencing tunnel lake tap construction, the sites must be approved by the Department; and

ii. Monitoring of key salmonid spawning locations identified by the Department at seven locations (one is an upstream control) prior to use of the bypass tunnel and at the end of each construction phase's drawdown and refill event using the protocols provided by the Department.

d. In conjunction with the Department, conduct a 30-day opportunity for the public to comment on the proposed three-year Project. This includes public advertisements in local print media and mail notification to adjacent owners. PacifiCorp shall make available to the public for review during the public comment period its STAE application with the Project description and the Water Quality Monitoring Plan and Spawning Gravel Assessment Plan. PacifiCorp will also make available a description of potential measures to reduce impacts to water quality and beneficial uses in its draft Water Quality Management Plan. PacifiCorp will receive comments and will submit them to IDEQ after the close of the 30-day comment period; and
e. If necessary based on public comments, revise the description of measures in the Water Quality Management Plan to reduce impacts to water quality and beneficial uses, or the methods in the Water Quality Monitoring Plan or Spawning

Gravel Assessment Plan, and submit the revised documents to the Department for a 30-day review and approval. The documents must be approved by the Department prior to the tunnel lake tap construction (drawdown event from 5147 to 5130 in 2010), and the Project must be implemented in accordance with the approved documents.

5. PacifiCorp shall at a minimum notify the Department 24-hours prior to the start of any activities which have the potential to create turbid water. These activities include, but are not limited to: drawdown, refill, tunnel inlet excavation, placement or removal of coffer dam materials.

6. PacifiCorp shall allow the Department reasonable access to the Project site for monitoring of water quality and or the conditions of this agreement.

7. PacifiCorp shall be prepared to conduct spot turbidity monitoring on request, per a Department provided grab sample protocol.

8. During construction, if turbidity at the downstream monitoring location exceeds 500 NTUs over background, PacifiCorp shall implement the measures in the approved Water Quality Management Plan.

9. Petroleum products, hazardous, toxic and/or deleterious materials shall not be stored, disposed or accumulated adjacent to or in the immediate vicinity of state waters unless adequate measures and controls are provided to ensure that those materials will not enter state waters as the result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third party activities. Inherently or readily biodegradable non-toxic hydraulic fluid must be used on equipment operating in or directly adjacent (within 6 feet) to open water.

10. Within sixty (60) days of the completion of the Spawning Gravel Assessment for that construction phase, PacifiCorp shall provide:

a. A written report to the Department documenting all activities including, Water Quality Monitoring results, Spawning Gravel Assessment results, and representative construction photos of work activities undertaken during the construction phase; and
b. Review of this STAE and the effectiveness of all BMPs implemented during the construction season.

11. This STAE is valid until 12-months from issuance and PacifiCorp must re-apply annually for a STAE for this project. If PacifiCorp submits an application for a new STAE prior to the end of the 12-month period, the STAE shall remain valid until the Department takes final action on the application for the new STAE. The Department reserves all rights with respect to the application for additional STAEs, including, without limitation, the right to modify the terms and conditions for granting a STAE as a result of a review of the end of season report described above and any other information

relevant to impacts to water quality and beneficial uses. PacifiCorp recognizes that it may be subject to enforcement actions in the event that there is a deviation from applicable WQS as a result of PacifiCorp's failure to meet all terms and conditions outlined in this STAE. A new STAE may be issued following annual review and approval by the Department.

12. PacifiCorp shall be responsible for obtaining the required permits or agreements necessary to implement the Ashton Dam work.

13. All communications required by this Consent Order shall be addressed to:

Troy Saffle
Department of Environmental Quality
900 N. Skyline, Suite B
Idaho Falls, Idaho, 83402

Mark Stenberg
PacifiCorp Energy
822 Grace Power Plant Road
Grace, Idaho 83241

14. This Consent Order shall not in any way relieve PacifiCorp from any obligation to comply with any other applicable local, state, federal, and tribal laws.

15. This Consent Order shall bind PacifiCorp and its successors and assigns until terminated. Unless the parties by mutual consent extend the termination date, the Consent Order will terminate 30-days after the STAE ceases to be valid.

16. The Department and PacifiCorp each represent and warrant through the undersigned that each has the authority to execute and legally bind such Party to this Consent Order.

17. The effective date of this Consent Order shall be the date of signature by the Director of the Idaho Department of Environmental Quality or PacifiCorp, whichever occurs last.

DATED this 14th day of June, 2010

By: _____
Toni Hardesty, Director
Idaho Department of Environmental Quality

DATED this 8th day of June, 2010

By: _____
Randy Landolt, Managing Director
Hydro Operations
PacifiCorp Energy

920 S.W. Sixth Avenue
Portland, Oregon 97204-1256
(503) 464-5000

PACIFICORP
PACIFIC POWER UTAH POWER

November 3, 1995

Ms. Lois D. Cashell
Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, D.C. 20426

Dear Ms. Cashell:

Attached is a final Ashton Reservoir Fish Stocking Plan for the Ashton-St. Anthony Hydroelectric Project, FERC No. 2381. The plan has been prepared in accordance with license article 402 and in consultation with the United States Fish and Wildlife Service (USFWS) and the Idaho Department of Fish and Game (IDFG). PacifiCorp's letter dated June 16, 1995 to USFWS and IDFG included a proposed agreement based on consultation which had occurred to date, and requested comments in order to reach a final agreement between all parties. Comments were received from USFWS and IDFG, by letters dated July 14, 1995, and August 23, 1995, respectively. Copies of these letters are contained in "Attachment A".

PacifiCorp has reviewed and incorporated the agency comments into the reservoir fish stocking plan accordingly. PacifiCorp believes the terms of Article 402 have been fulfilled and hereby requests the Commission review and approve the final plan which is included as "Attachment B".

The original and eight copies of this letter and its attachments are hereby provided.

Very truly yours

S. A. deSousa
Director, Hydro Resources

SAdeS:ms
Attachments

cc: Mr. Noel Folsom, Director, FERC San Francisco Regional Office
Mr. Cal Groen, Idaho Department of Fish and Game
Mr. Charles Lobdell, U.S. Fish and Wildlife Service
Mr. Mark Gamblin, Idaho Department of Fish and Game

bc: Atwood/Dietz - 610 PSB, Brauer - 2300 OUC, Burruss - 270 NTO, Johnson, S -270 NTO, Johnson, P - 270 NTO, Landolt - 610 PSB, Robinson- 270 NTO, Scott - 270 NTO, Shrier - 411 PSB, Weiss - 411 PSB, Nelson - 2700 SIC, File: Ashton-St. Anthony, FERC License, Fish, Consultation

"ATTACHMENT A"

PACIFICORP
ASHTON-ST. ANTHONY HYDROELECTRIC PROJECT
FERC NO. 2381

ASHTON RESERVOIR FISH STOCKING PLAN
AGENCY CONSULTATION DOCUMENTATION

October 1995

920 S.W. Sixth Avenue
Portland, Oregon 97204-1256
(503) 464-5800

PACIFICORP
PACIFIC POWER UTAH POWER

June 16, 1995

Mr. Cal Groen
Chief, Bureau of Program Coordination
Idaho Department of Fish and Game
600 South Walnut
P.O. Box 25
Boise, Idaho 83707

Mr. Charles Lobdell
U.S. Fish and Wildlife Service
Ecological Services
4696 Overland Road, Room 576
Boise, Idaho 83705

Dear Sirs:

PacifiCorp seeks to finalize resolution of the fish stocking issues contained in Federal Energy Regulatory Commission (FERC), license Article 402 of the Ashton - St. Anthony Hydroelectric Project, FERC No. 2381. In our letter to Idaho Fish & Game (IFG) dated April 11, 1991, five specific terms of agreement were identified relative to the Ashton Reservoir fish stocking program. By IFG letter dated April 25, 1991, the terms of items 1, 2, 3, and 5 were agreed upon while item #4 remains unresolved. Copies of these two letters are attached for your reference. PacifiCorp has currently revised item #4 of our 1991 letter that deals with stocking rates and hereby requests your respective agency's consensus.

PacifiCorp agrees to increase the current annual stocking rate of 22,000 fish by a maximum of 25 percent for each five-year period until a maximum increase cap of 70 percent, or 37,400 fish, are stocked. PacifiCorp is unwilling to fund any creel censuses during the life of the license. PacifiCorp will continue to pay for the annual rearing and stocking of fish raised at the Ashton hatchery, but no additional funding would be provided for hatchery improvements. If the hatchery can not raise the required number of fish, additional fish from an approved outside source would be purchased by PacifiCorp.

The following table indicates the breakdown of proposed stocking costs and number of fish stocked based on the initial stocking of 22,000 fish.

5 YR PERIOD	NUMBER OF FISH STOCKED TO 25% INCREASE PER 5 YRS	FIVE-YEAR PERIOD ESTIMATED COST**
1 (1991-1996)	22,000	*$66,000
2 (1997-2002)	27,500	$82,500
3 (2003-2008)	34,375	$103,125
4 (2009-2014)	37,400 (70% cap reached)	$112,200
5 (2015-2020)	37,400	$112,200
6 (2021-2026)	37,400	$112,200
7 (2027-2028)***	37,400	$44,880

* Fish purchased from Black Canyon Trout Farm (1991, 1992).
** Based on an annual cost of $13,200 for stocking 22,000 8-10" fish.
*** Last year of license.

We believe the revised stocking program proposed above is reasonable and will enhance the Ashton fishery resource. Please consider this proposal and provide your comments to me by July 15, 1995.

Very truly yours,

S. A. deSousa
Director, Hydro Resources

SdeS:ms
Attachments

cc: Mr. Noel Folsom, Director - FERC, San Francisco Regional Office
Mr. Mark Gamblin, Idaho Fish & Game, Idaho Falls, ID

PACIFIC POWER UTAH POWER

Pacific Power
920 S.W. Sixth Avenue
Portland, Oregon 97204
(503) 464-5000
Fax: (503) 464-5209

PACIFICORP
ELECTRIC OPERATIONS

April 11, 1991

Mr. Cal Groen
Chief, Bureau of Program Coordination
Idaho Fish & Game
600 South Walnut
P. O. Box 25
Boise, ID 83707

Dear Mr. Groen:

Your letter dated December 14, 1990, described the progress made toward resolving the Ashton Reservoir fish enhancement issues in article 402 of the license for FERC Project No. 2381. Since that time, we have conferred and met with various IF&G personnel to finalize an agreement. The following represents the consensus reached through those efforts.

(1) PacifiCorp will contract with Black Canyon Trout Farms to raise and stock 22,000, 8-10" rainbow trout in Ashton Reservoir during May-August 1991.

(2) PacifiCorp will provide funding in the amount of $110,000 to IF&G for renovation of the Ashton Hatchery. This funding would enable IF&G to produce 22,000 Hayspur strain trout annually for the term of the project license (40 years). Payment will be made prior to July 1, 1991.

(3) PacifiCorp will pay IF&G for the annual rearing and stocking of 22,000 Hayspur strain trout, with a mean length of 280 mm, into Ashton Reservoir. Approximately 5,500 fish would be stocked monthly during May-August. The cost of the fish for 1992 would be $13,200. Subsequent production costs would be negotiated each year with reimbursement made after stocking.

(4) The program would be reevaluated during the term of the license, which ends in 2028, at five-year intervals starting in 1996; the stocking rate may be adjusted up or down. The evaluation would include the reservoir fishing pressure, catch rate, size of fish, IF&G fishery management program and other management options. A mutually-agreed upon stocking rate would be implemented for the next five-year interval. The stocking rate shall not be increased by more than 10% from the previous interval with a total increase of 35% or less during the term of the license.

(5) If the annual stocking rate increases beyond 22,000 fish, additional fish may be obtained from IF&G or other sources. If fish are proposed to be purchased from a source other than IF&G, prior approval would be obtained from IF&G.

PacifiCorp appreciates the efforts put forward by the Department in the development of this fishery enhancement plan for Ashton Reservoir. Your concurrence with this proposal would insure that license article 402 is indeed resolved.

Very truly yours,

S. A. deSousa
Director, Hydro Resources

SdeS:mve

cc: Mr. C. L. Emmerling, P.E.
FERC, San Francisco

USF&WS, Boise
Region 6, Idaho Falls

IDAHO FISH & GAME
600 South Walnut / Box 25
Boise, Idaho 83707

April 25, 1991

Mr. S. A. deSousa
Director Hydro Resources
Pacificorp
920 S.W. Sixth Avenue
Portland, OR 97204

Re: Ashton-St. Anthony Hydroelectric Project
FERC No. 2381

Dear Mr. deSousa:

Idaho Department of Fish and Game (Department) personnel have reviewed your letter of April 11, 1991. Department personnel which met with representatives from Pacific Power and Utah Power did agree to items 1, 2, 3 and 5 as discussed in your letter. We also agreed that the stocking rate would be evaluated at the end of each five-year period for the life of the project. After evaluation, the stocking rate could be adjusted up or down based on the number of fishermen and the catch rates of those fishermen and management goals for the reservoir. We did not agree on how large the increase should be or if there should or should not be a cap on the increase. The Department has consistently said we would accept a limit not to exceed 25 percent for each five-year period. The proposal by Pacificorp to limit the increase to 1percent per five-year period with a cap of 35 percent for the life of the project is totally unacceptable. Limits proposed by Utah Power would allow for less than 1 percent increase in angling pressure per year for the life of the project.

If Utah Power should desire a cap placed on the potential increase in anglers, the Department would agree to a cap of 70 percent, which would compare favorably with projected growth trends for the Ashton area over the next 40-year period.

Sincerely,

for Cal Groen, Chief
Resource Planning and
Program Coordination

CG:WR:tlv

cc: USFWS (Lobdell)
Idaho Dept. of Parks and Recreation
(Luckachick)
FERC (Portland)
FERC (Washington, D.C.)
Region 6

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Idaho State Office, Ecological Services
4696 Overland Road, Room 576
Boise, Idaho 83705

July 14, 1995

Mr. S. A. deSousa, Director Hydro Resources
Pacificorp
920 S.W. Sixth Avenue
Portland, Oregon 97204-1256

Subject: Ashton Hydro Project (FERC No. 2381) Fish Production and Stocking Mitigation Plan.

Dear Mr. deSousa:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter of June 16, 1995 regarding fish stocking efforts that Pacificorp is responsible for at the Ashton Project. We have no information about trends in fishing effort at this location that would enable us to determine if the proposed stocking levels are reasonable or not. Baring any information of this type being made available to the Service, we defer to the Idaho Department of Fish and Game on this issue. If you have fishing trend data and other information about effort and return of planted fish to the creel, we would be happy to comment on it as it relates to your mitigation program.

Contact Jim Esch of my staff if you have any questions on these comments.

Sincerely,

Susan B. Martin

for Charles H. Lobdell
Supervisor, Snake River Basin Office

cc: IDFG, Idaho Falls
IDFG, HQ, Policy Bureau
FERC, San Francisco
Pacificorp, Salt Lake City
FWS-ES, Eastern Idaho (Donahoo)

IDAHO FISH & GAME
600 South Walnut / Box 25
Boise, Idaho 83707-0025

August 23, 1995

Phil Batt / Governor
Jerry M. Conley / Director

S. A. deSousa
Director, Hydro Resources
PacifiCorp
920 S. W. Sixth Avenue
Portland, OR 97204

Re: FERC No. 2381, Ashton-St. Anthony, Article 402
Fish Stocking

Dear Mr. deSousa:

The Idaho Department of Fish and Game (IDFG) has reviewed your letter of June 16, 1995 on the above-referenced subject and has the following comments:

Fish Stocking

The IDFG agrees to fish stocking rates listed in the enclosed table, which shows five-year periods differently than the ones you have suggested. Whereas your proposal, in actuality, covers six-year periods when the same number of fish are to be stocked, ours covers five. The IDFG wants the 25 percent increase in fish stocked to occur at the start of each five-year period. Thus, the 25 percent increase for each five-year period should take effect in 1996, 2001, 2006, etc., and remain in effect each year through each period.

Fish Size

The average or mean total length of the trout stocked is to be 11 inches (280 mm) at the time of release, as agreed to.

Time of Stocking or Releases

The time of stocking of these fish is to be determined by IDFG personnel.

Strain of Fish to Stock

As determined by studies, our preferred fish to stock at this time is the Hayspur strain of rainbow trout. However, the IDFG wants the option to stock other strains of trout if we have problems with this strain or if a better strain becomes available during this time period.

Approved Outside Sources

If additional fish are to be purchased from outside sources, the IDFG wants to approve these sources to prevent the spread of disease. This approval is alluded to in the June 16, 1995 letter, but does not specifically say that "IDFG" will approve these sources.

Page 1, Paragraph 2, Line 2, (June 16, 1995 letter)

Delete the words "maximum increase." The IDFG accepts a 25 percent increase for each five-year period until a cap of 70 percent, or 37,400 fish, is being stocked. We feel that the words "maximum increase" confuses the issue.

We believe the overall goal of any mitigation such as this is to provide fishing success that is comparable to pre-existing conditions. Our studies show that catch rates of game fish by anglers both upstream and downstream from this project are about one fish per hour. We are assuming that catch rates in the river before the reservoir was completed would be similar. It is unknown if the fish scheduled for release in the reservoir will result in a catch rate of one fish per hour. However, we hope it can be achieved.

If you have any questions on this subject, please call Bob Martin at (208)525-7290 or John Heimer at (208)334-2597.

Sincerely,

Jerry M. Conley
Director

JMC:JTH:tlv

Enclosure

cc: Mr. Noel Folsom, Director-FERC, San Francisco Regional Office
Upper Snake Region, IDFG
U. S. Fish and Wildlife Service, Boise
Fisheries Bureau

ASHTON RESERVOIR FISH STOCKING - PACIFICORP

5 YR PERIOD	NUMBER OF FISH STOCKED TO 25% INCREASE PER 5 YRS	FIVE-YEAR PERIOD ESTIMATED COST**
1 (1991-1995)	22,000	*$66,000
2 (1996-2000)	27,500	$82,500
3 (2001-2005)	34,375	$103,125
4 (2006-2010)	34,400 (70% cap reached)	$112,200
5 (2011-2015)	37,400	$112,200
6 (2016-2020)	37,400	$112,200
7 (2021-2025)**	37,400	$112,200
8 (2026-2028)***	37,400	$89,760

* Fish purchased from Black Canyon Trout Farm (1991, 1992).
** Based on an annual cost of $13,200 for stocking 22,000 8-10" fish.
*** Last year of license.

"ATTACHMENT B"

PACIFICORP
ASHTON-ST. ANTHONY HYDROELECTRIC PROJECT
FERC NO. 2381

ASHTON RESERVOIR FISH STOCKING PLAN

October 1995

PACIFICORP
ASHTON-ST ANTHONY HYDROELECTRIC PROJECT
FERC NO. 2381
ASHTON RESERVOIR FISH STOCKING PLAN
October 1995

BACKGROUND INFORMATION

In accordance with the requirements set forth within License Article 402 of the Ashton-St. Anthony Hydroelectric Project, FERC No. 2381, PacifiCorp consulted and negotiated with the U.S. Fish and Wildlife Service (USFWS) and the Idaho Department of Fish & Game (IDFG) to reach agreement on an overall plan and schedule to enhance the Ashton Reservoir fishery.

ASHTON RESERVOIR FISH STOCKING PLAN

PacifiCorp has agreed to provide funding to IDFG to perform a fish stocking program as follows:

* PacifiCorp agreed and provided funds in the amount of $110,000 to IDFG for the renovation of the Ashton hatchery. This renovation allows IDFG to produce 22,000 Hayspur strain rainbow trout. The stocking of Hayspur strain rainbow trout is to occur annually and is to be increased until a 70 percent cap is reached as shown in the following Table of Ashton Reservoir Fish Stocking.

* PacifiCorp agrees to pay IDFG for the annual rearing and stocking into the Ashton Reservoir of rainbow trout (refer to Table of Ashton Reservoir Fish Stocking) with a mean length of 280 mm.

* Commencing in 1996 and ending in 2028, PacifiCorp agrees to increase the current annual stocking rate of 22,000 fish by 25 percent for each five-year period, until a cap of 70 percent, or 37,400 fish per year is stocked. The 25 percent increase is to commence the first year of each five year period (refer to Table of Ashton Reservoir Fish Stocking).

* The mean length of the trout stocked will be 280 mm, and IDFG personnel will determine when during each year the fish will be stocked. If the Ashton Hatchery cannot provide the required number of fish in a given year, the required amount of fish from an outside source which is approved by IDFG will be purchased by PacifiCorp. Hayspur rainbow trout will continue to be stocked unless IDFG determines a better strain of fish is more desirable.

TABLE
OF
ASHTON RESERVOIR FISH STOCKING

5 YR PERIOD	FISH NUMBERS STOCKED - 25% INCREASE PER 5 YRS	FIVE-YEAR PERIOD ESTIMATED COST**
1 (1991-1995)	22,000	*$66,000
2 (1996-2000)	27,500	$82,500
3 (2001-2005)	34,375	$103,125
4 (2006-2010)	37,400 (70% cap reached)	$112,200
5 (2011-2015)	37,400	$112,200
6 (2016-2020)	37,400	$112,200
7 (2021-2025)**	37,400	$112,200
8 (2026-2028)***	37,400	$67,320

* Fish purchased from Black Canyon Trout Farm (1991, 1992).
** Based on an annual cost of $13,200 for stocking 22,000 8-10" fish.
*** Last year of license.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://IdahoES.fws.gov

JAN 28 2010

Mark Stenberg
PacifiCorp
822 grace Power Plant Road
Grace, ID 83241

Subject: Ashton Dam Remediation Plans. SL #10-0175

Dear Mr. Stenberg:

The U.S. Fish and Wildlife Service (Service) is writing in response to your request for information about the potential impacts to endangered, threatened, proposed, and/or candidate species from the proposed Ashton dam remediation in Fremont County, Idaho. The Service has not identified any issues that indicate that consultation under section 7 of the Endangered Species Act of 1973, as amended, is needed for this project. This finding is based on our understanding of the nature of the project, local conditions, and/or current information indicating that no listed species are present.

Although the Service has indicated that consultation under section 7 is not needed, fluctuation in the reservoir water levels have the potential to affect migratory birds, which are afforded protection under the Migratory Bird Treaty Act (MBTA) (40 Stat. 755; 16 U.S.C. 703-7 12). We recommend that you identify and implement measures to assure the project complies with the MBTA. More information on impacts to migratory birds and/or the Service's recommendations can be found on the web at http://www.fws.gov/migratorybirds.

If you determine otherwise or require further assistance, please contact Ty Matthews of this office at (208)237-6975 ext 115.

Thank you for your interest in endangered species conservation.

Sincerely,

p/ Damien Miller
Supervisor, Eastern Idaho Field Office

PACIFICORP ENERGY

ASHTON HYDROELECTRIC PROJECT

FERC NO. 2381

ASHTON DAM REMEDIATION PROJECT

2010 THROUGH 2012

WATER QUALITY MONITORING

AND

SPAWNING GRAVEL ASSESSMENT

SCOPE OF WORK

JUNE 9, 2010

TABLE OF CONTENTS

1.0 WATER QUALITY MONITORING

1.1 BACKGROUND AND PURPOSE

This Scope of Work (SOW) describes water quality monitoring and reporting to be performed during PacifiCorp Energy's project to rehabilitate Ashton Dam, located on the Henry's Fork of the Snake River (Henry's Fork) in Fremont County, Idaho (Figure 1). The project will begin in 2010 and continue into 2013. Ashton Dam is part of the Ashton / St. Anthony Hydroelectric Project (FERC No. P-2381) and is owned and operated by PacifiCorp Energy. This plan describes the deployment, calibration and maintenance of equipment that will be used to monitor temperature, turbidity and dissolved oxygen (DO) on a continuous basis during specific construction periods. This plan also describes how data collected will be reported in real-time and on an annual basis throughout the project to describe potential project impacts on water quality in the Henry's Fork.

Construction activities associated with this project may impact water quality in the following ways: 1) export of sediments from the reservoir may increase turbidity and total suspended solids (TSS); 2) lowering of the reservoir and entrainment of organic material may affect DO levels downstream; and 3) reservoir drawdown may affect downstream temperatures.

IDAPA 58.01.02 regulations for surface waters designated for cold water aquatic life state that temperature must remain at 22°C or less with a maximum daily average less than 19°C. Turbidity cannot exceed background turbidity by more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days. DO must exceed six (6) milligrams per liter at all times.

The Ashton Dam Remediation Project will require drawdown events in each year of the three-year project. Monitoring and reporting of water quality during these events is of critical interest to PacifiCorp Energy and regulating agencies. The drawdown schedule is shown in Figure 2. Water quality monitoring will commence 30 days prior to each reservoir drawdown event from 5147 msl to 5130 msl. See Figure 2 for reservoir elevation schedule. Monitoring will discontinue when reservoir elevations are returned to elevation 5147 msl or if winter icing conditions prevent deployment of probes. NOTE: After the September 2011 drawdown event from 5147 to 5130 the reservoir may be returned to 5147 or it may remain at 5130 until late in 2012, see note on Figure 2.

1.2 OBJECTIVES

The objectives of this study are to:

1. Measure and report temperature, turbidity and DO in the Henry's Fork above and below Ashton Reservoir during PacifiCorp Energy's Ashton Dam Remediation Project to evaluate potential impacts to water quality standards as well as to measure the effectiveness of preventative measures implemented.

2. Establish a mathematical relationship between field turbidity (probe sensor readings) and grab samples of total suspended solids (TSS).

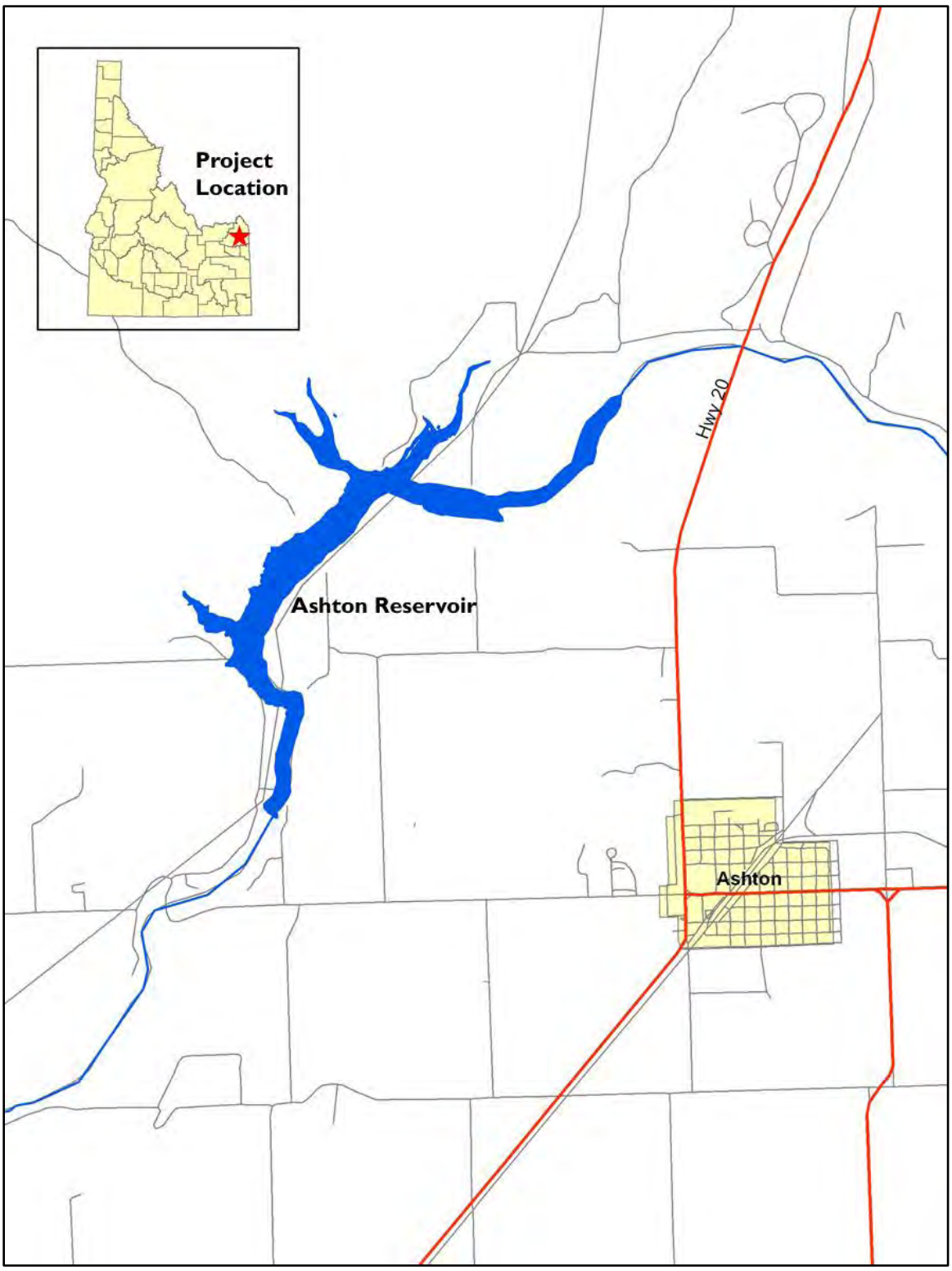


Figure 1. General location map showing the Project area.

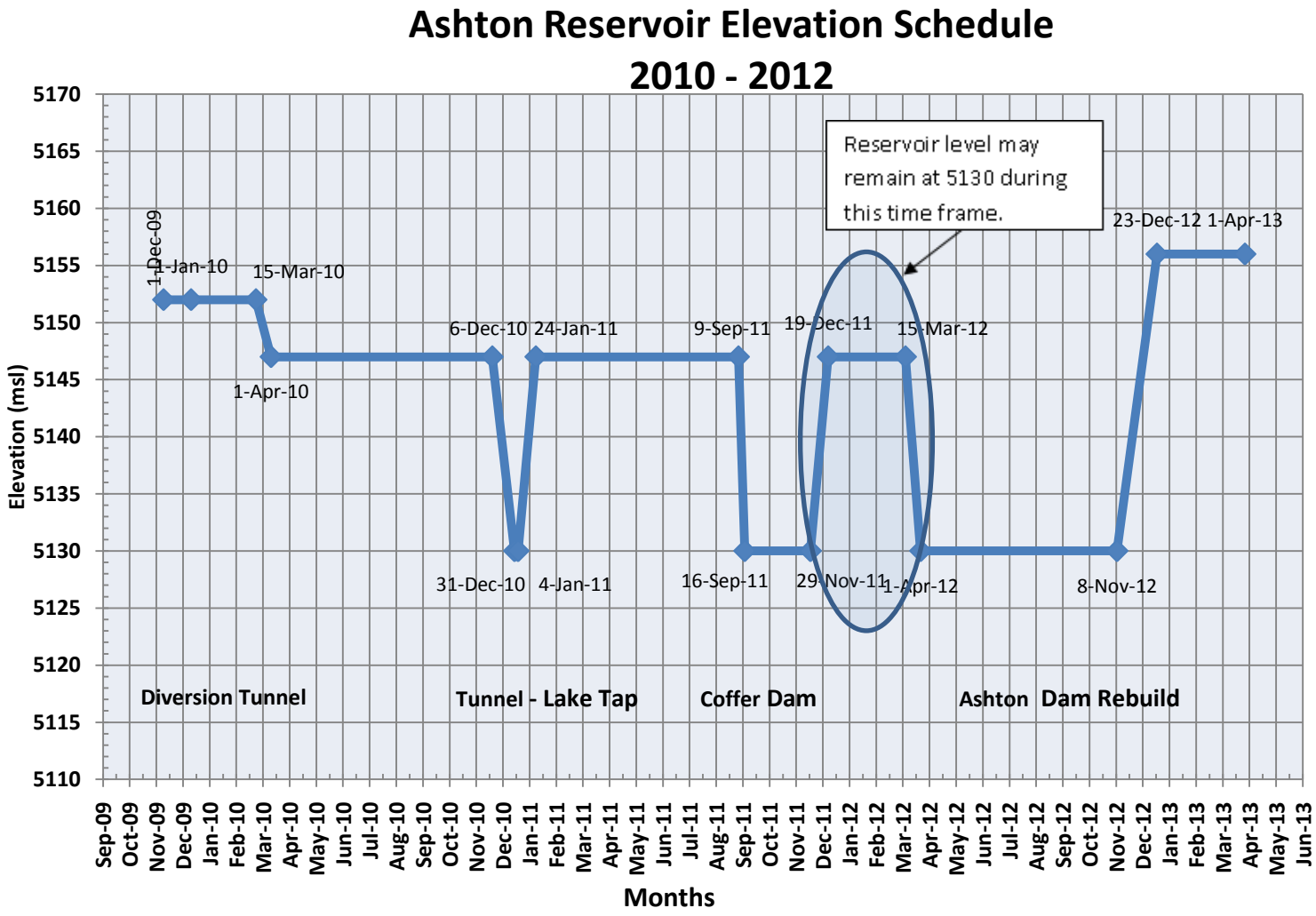


Figure 2. Timeline showing events for the rehabilitation of Ashton Reservoir.

1.3 METHODS

1.3.1 DATA COLLECTION

Two In-Situ Troll 9500© water quality probes (or PacifiCorp-approved alternative) will be provided and deployed to monitor the potential effects of the reservoir drawdown as well as any construction-related effects to water quality. One probe will be placed above Ashton Reservoir near the Highway 20 Bridge, approximately 4.7 miles above the dam, to monitor background turbidity (Figure 3). The second probe will be placed below Ashton Dam approximately 0.7 miles below the dam, upstream from the Ora Bridge to measure water quality. Specifications for the Troll 9500 probe are shown in Table 1. Probes will become the property of PacifiCorp upon completion of the project.

Table 1. Troll 9500 sensor specifications.

Parameter	Accuracy	Accuracy Range	Methodology
Temperature, °C	±0.1 °C	-5 °C to 50 °C	EPA 170.1
Turbidity, NTU	±5% or 2 NTU	0-2000 NTU	ISO 7027
Dissolved oxygen, mg/L and % saturation	±0.1 mg/L, ±0.2 mg/L	0-8 mg/L, 8-20 mg/L	ASTM D888-05, Test Method C

Data will be recorded internally on the Troll 9500 probes as well as uploaded at 15-minute intervals to the ISI Data Center website (http://www.isi-data.com). Data uploaded by the Troll Link 101 telemetry system will be available for review at this website.

Simultaneous measurements of turbidity and TSS through grab samples will allow for a mathematical relationship to be developed between these parameters. This relationship can then be applied to probe turbidity measurements to allow probe turbidity measurements to be converted to TSS with an improved degree of confidence.

To accomplish the development of a relationship between probe turbidity and TSS, water quality grab samples will be collected during the tunnel lake tap construction sequence in 2010. This is the first drawdown event and will lower the reservoir from elevation 5147 msl to 5130 msl. Close coordination will be necessary to aid in capturing grab samples over a sufficient range of turbidity measurements to build a strong correlation between turbidity and TSS. Grab samples will be collected by consultant and/or PacifiCorp as directed by consultant. Real time monitoring will allow the consultant to direct PacifiCorp to pull samples that capture a range of turbidity values. Grab samples will be analyzed by consultant for turbidity (EPA Method 180.1) and TSS (EPA Method 160.2) at a certified water quality laboratory. It is anticipated that 10 paired (one sample at each probe location) grab samples will need to be collected over a range of turbidity values.

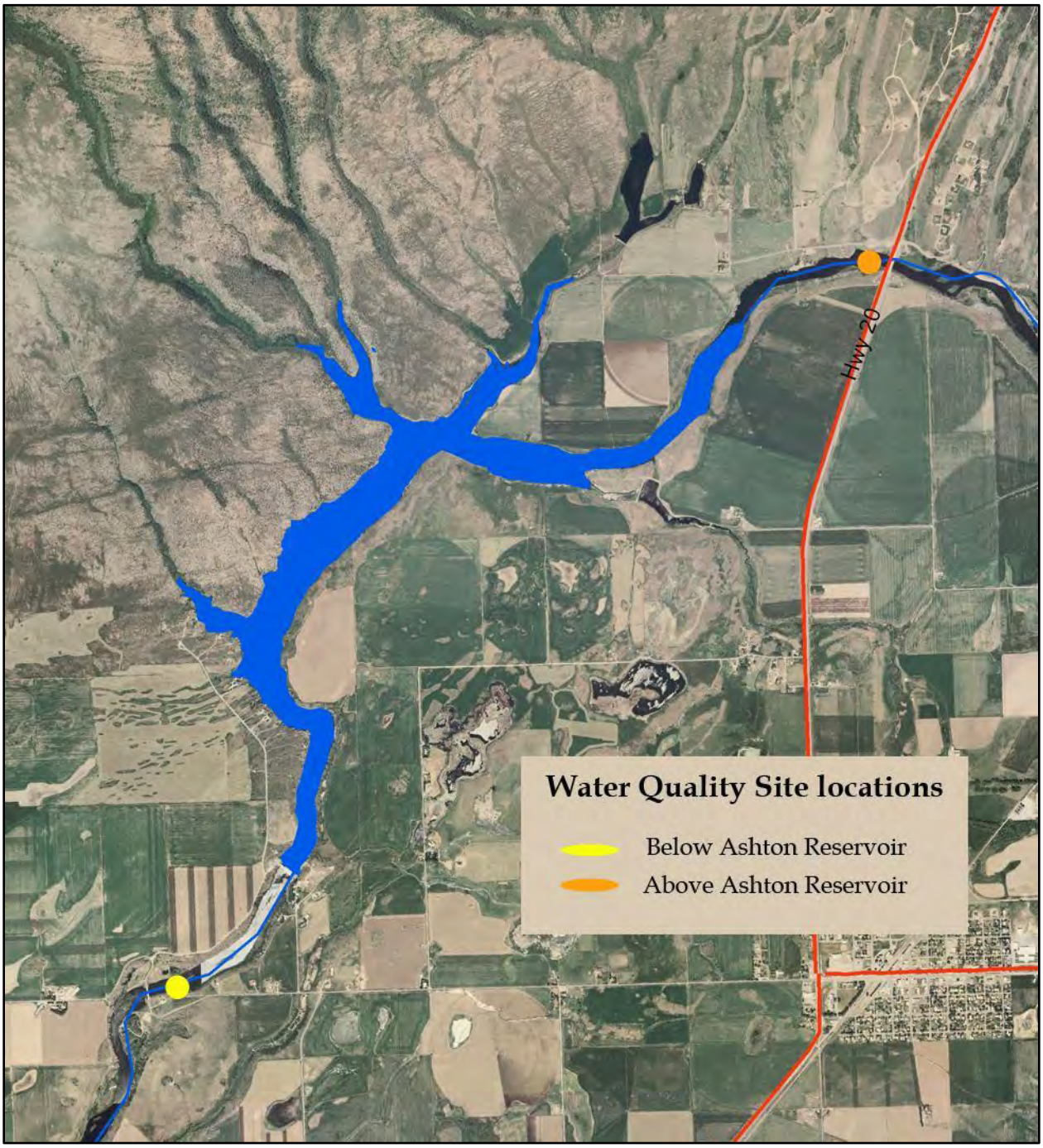


Figure 3. Proposed water quality monitoring site locations.

Consultant will provide PacifiCorp grab sample bottles, labels, etc. and instructions to staff who will be collecting the grab samples.

1.3.2 Sampling Quality Control

Each water quality probe will be calibrated prior to initial use and on a monthly basis according to In-Situ protocol. Water quality probes will be routinely checked and cleaned by PacifiCorp personnel to ensure against bio-fouling or accumulation of debris on the sensors. Monthly maintenance and calibration of the probes is necessary to ensure proper functioning. Additional maintenance may be needed as indicated by real time monitoring data. The probes at each site will be checked on a monthly basis by consultant to ensure that they are in good working order, cleaned and recalibrated. A backup probe of the same specification will be available in the case any problems are encountered with the equipment. Custom steel boxes will be used to house, conceal and protect the probes.

When turbidity and TSS grab samples are collected, samples will be kept cool and dark from the moment of collection until delivery to the laboratory. Field and trip blanks (de-ionized water samples) will be retained and analyzed during each trip to ensure against potential contamination. Duplicate samples will also be collected during each trip to verify accuracy.

1.4 Reporting

1.4.1 External Web Reporting

As mentioned previously, data will be uploaded at 15-minute intervals to the ISI Data Center website (http://www.isi-data.com) using the Troll Link 101 telemetry system. This will allow the data to be examined continuously throughout the project by the construction management team, PacifiCorp Energy technical staff and regulatory agencies.

1.4.2 Written Reporting

Combined annual reports for Water Quality Monitoring and Spawning Gravel Assessment and a final comprehensive report of Water Quality Monitoring and Spawning Gravel Assessment will be provided. These reports will provide the results and analysis to PacifiCorp Energy of the effects of the Ashton Dam Remediation Project on temperature, turbidity and DO, and spawning gravels.

Annual reports will be brief, summarizing the methodology employed, presenting the results obtained that year, and identifying any issues encountered.

The final report will describe the study methodologies in more detail and present the findings over the course of the study. For spawning gravel assessment any statistically significant differences identified in the percent composition of fine sediments found at any location will be identified and discussed. For the water quality monitoring, compliance with the conditions in the Idaho Department of Environmental Quality's Voluntary Consent Order with PacifiCorp will be reported, as well as the success of any measures employed to reduce the downstream movement of sediment. Reports will be due within 60 days of the completion of the annual spawning gravel assessment.

1.5 SUMMARY

This SOW consists of water quality monitoring above and below Ashton Reservoir that will commence prior to construction in 2010 and continue through completion of the rehabilitation of Ashton Dam in 2012. The purpose of this program will be to document existing conditions during the summer of 2010 and document water quality conditions during Project activities. Specific tasks to be completed to accomplish the study objectives include:

- Task 1 - Deploy during times described, Troll 9500 Probes in Henry's Fork above and below Ashton Dam.
- Task 2 - Provide backup probe.
- Task 3 - Maintain and calibrate water quality probes on a monthly basis or as necessary.
- Task 4 - Provide data via Web-based application in "real-time" to PacifiCorp Energy and agencies.
- Task 5 - Collect/coordinate grab samples for building turbidity and TSS relationship during tunnel lake tap sequence and as necessary at other times establish relationship between turbidity and TSS.
- Task 6 – Provide a combined annual report for Water Quality Monitoring and Spawning Gravel Assessment and final comprehensive report of Water Quality and Spawning Gravel Assessment Results and analysis to PacifiCorp Energy evaluating effects of the Ashton Dam Remediation Project on temperature, turbidity and DO and spawning gravels.

2.0 SPAWNING GRAVEL ASSESSMENT

2.1 BACKGROUND AND PURPOSE

PacifiCorp Energy is proceeding with a project to remediate defects in the Ashton Dam, part of a hydroelectric development operated by PacifiCorp Energy on the Henry's Fork of the Snake River near Ashton, Idaho. Remediation work on the dam is scheduled to begin in July of 2010 and be completed in 2012. The project will entail drawing Ashton Reservoir down three times over the course of three years. These drawdown events have the potential to move fine sediments out of the reservoir bed and deposit them downstream.

The fishery in the Henry's Fork of the Snake River is an important component of the local economy and the reach below Ashton Dam includes spawning habitat for rainbow and brown trout. The addition of fine sediments to coarser substrates suitable for trout spawning can reduce interstitial spaces necessary for successful spawning.

PacifiCorp is soliciting consultant services to monitor the potential accumulation of fine sediments in downstream spawning habitat that could potentially result from the dam remediation project.

2.2 OBJECTIVES

The objectives of this study are to:

1. Research and define range of acceptable habitat parameters for spawning of brown trout and rainbow trout. Perform McNeil gravel assessments above and below Ashton Reservoir during PacifiCorp Energy's Ashton Dam Remediation Project to evaluate potential impacts to spawning gravels as well as to measure the effectiveness of preventative measures implemented.

2. Evaluate the change in gravel composition at each study site between years. Report statistical confidence of findings.

2.3 METHODS

This project consists of four sequential tasks as described below. Note the task numbering continues from the Water Quality Monitoring Scope of Work. The objective is to determine whether the percent composition of fine sediments in spawning substrate increases during the term of the dam remediation project.

2.3.1 TIMING OF STUDY

The consultant will collect baseline data at the six sites during the summer of 2010 then will repeat the data collection procedure annually, under similar flow conditions during the summers of 2011, 2012, and 2013. Monitoring will occur between July and September so as not to coincide with spawning.

2.3.2 LOCATION OF STUDY

The control site will be in the vicinity of the Highway 20 bridge, above the reservoir. The four treatment sites will lie along the river between Ashton Dam and St. Anthony, a distance of roughly 16 miles. Figure 4 shows general locations for four of these sites. The sixth site will be determined at a later date. Rough coordinates for these locations are as follows (Idaho State Plane projection, northing and easting UTMs):

- Sample Site 1 – 4884337.144, 463560.5908
- Sample Site 2 – 4880543.857, 460135.3567
- Sample Site 3 – 4879768.876, 459119.3083
- Sample Site 4 – 4872644.662, 452052.6048
- Sample Site 5 – 4868956.545, 447638.6048

As discussed under Task 8 below, the consultant will refine these locations to ensure that functional spawning habitat is sampled. Specific sampling locations will be accessible from roads and less the 0.5 meters deep to allow effective use of the McNeil sampler.

2.3.3 LITERATURE REVIEW

The consultant will complete a literature review to:

- Define the range of criteria that produce suitable rainbow and brown trout spawning habitat in the study reach, focusing on the parameters of water depth, flow velocity, and substrate composition.

- Identify the upper and lower particle size limits that could adversely impact rainbow and brown trout spawning habitat. This range will define the fine sediments or “fines” which will be monitored through this study.

This task will be completed by a qualified aquatic biologist. The results of Task 1 will be provided to PacifiCorp Energy prior to the initiation of Task 2.

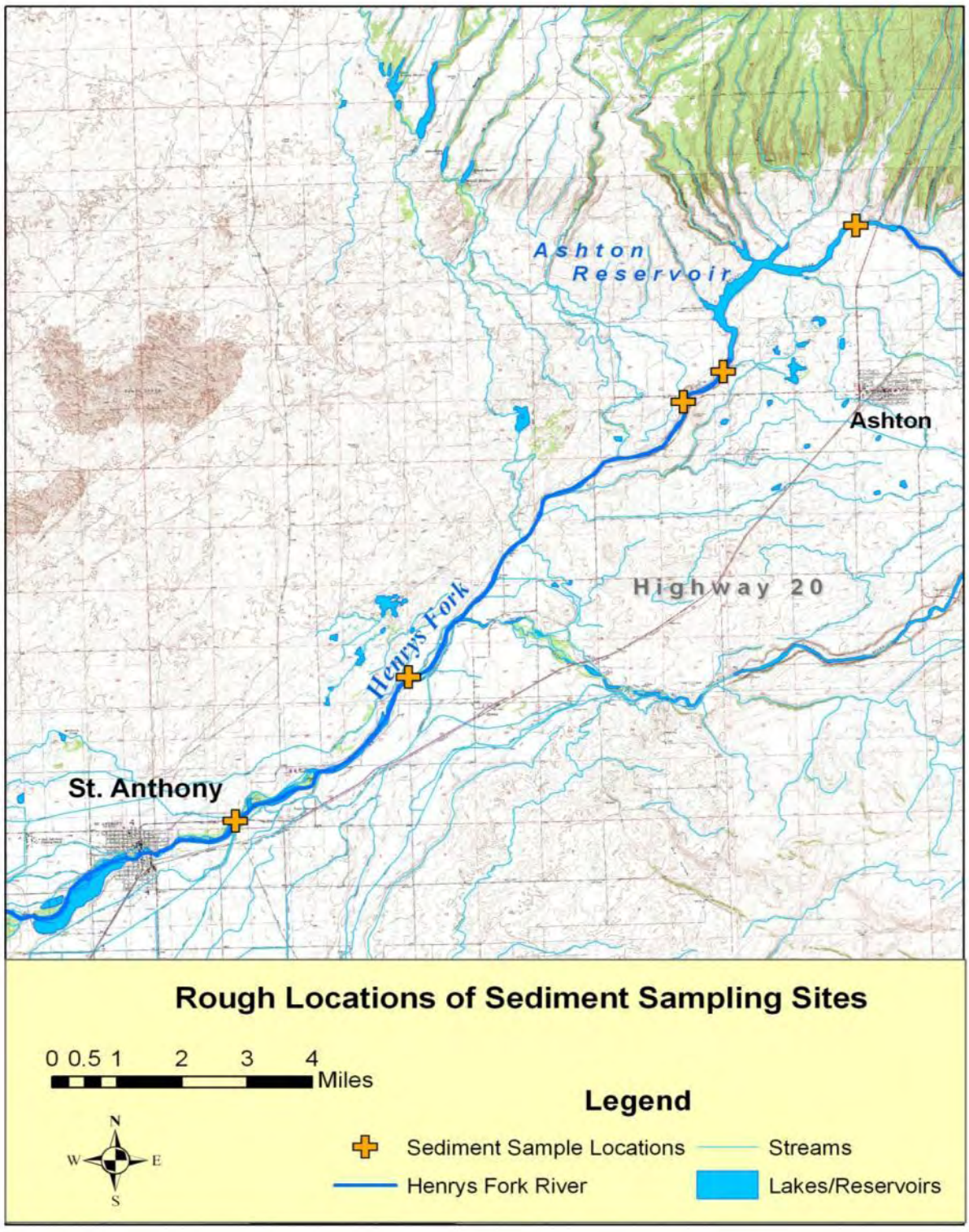


Figure 4. Rough Locations of Sediment Sampling Sites

2.3.4 SAMPLE SITE IDENTIFICATION

Using the criteria established in Task 1, the consultant will identify specific sites for sediment sample collection. PacifiCorp has provided coordinates for five general locations known to support trout spawning (the sixth to be determined at a later date), including one above the dam and five below (see Location Map of Study Sites at the end of this document). The upstream site identified under this task will serve as the "control," while the downstream sites will be considered "treatments" for purposes of the study. Specific sampling sites will be recorded using a GPS to allow precise relocation in subsequent years of the study. This task will be completed by a qualified aquatic biologist. Updated Coordinates will be provided to PacifiCorp upon completion of this task. Seven day notice will be given to PacifiCorp prior to performing this task so regulating agencies can be invited to attend.

2.3.5 FIELD DATA COLLECTION AND DATA ANALYSIS

Data will be collected using a McNeil core sampler, in accordance with the general protocol described in *Sampling Surface and Subsurface Particle-size Distributions in Wadable Cobble- and Gravel-bed streams for Analysis in Sediment Transport, Hydraulics, and Streambed Monitoring* (K. Bunte and S. Abt, General Technical Report RMRS-GTR-74, Rocky Mountain Research Station, USDA Forest Service, 2001). Beyond that, specific direction includes the following:

- Three samples will be collected at each site and compiled into a single sample for analysis.
- The location of the first sample of the three will be marked with a painted rock and verified with a GPS. Each of the next two samples will be collected 1 meter, respectively, upstream from the first. Sampling will proceed upstream, with the individual collecting the samples working on the downstream side of the sampler.
- Compiled samples may be analyzed in the field or transferred to secure plastic bags for lab analysis.
- Volumetric techniques (i.e., "wet" or water displacement methods) as discussed in Bunte and Abt (2001) will be used to calculate the percent composition of fines in each compiled sample.
- Samples will be truncated by eliminating material larger than 63 mm to reduce the impact of scattered cobbles on percent composition.
- The remaining sample will be run through two sieves, their sizes reflecting the upper and lower particle-size limits identified under Task 1 above as detrimental to spawning success.

Finer sediments will be assumed to remain in suspension or be re-suspended during redd construction and thus not considered in the analysis.

- The consultant will complete a statistical analysis to identify any statistically significant increases in percent composition of fines in spawning substrate between the baseline year (2010) and subsequent years, ending with the year following project completion (2013). If an F-test assures normal distribution of data, t-tests or one-way ANOVA will be used. If not, a nonparametric test such as Kruskal-Wallis will be used. Data from the control site will be used to identify and account for any background change in sediment deposition. Effect sizes will be calculated for any statistically significant increases.

2.4 REPORTING

(Note: This is the same Task described in the Water Quality SOW)

Combined annual reports for Water Quality Monitoring and Spawning Gravel Assessment and a final comprehensive report of Water Quality Monitoring and Spawning Gravel Assessment will be provided. These reports will provide the results and analysis to PacifiCorp Energy of the effects of the Ashton Dam Remediation Project on temperature, turbidity and DO, and spawning gravels.

Annual reports will be brief, summarizing the methodology employed, presenting the results obtained that year, and identifying any issues encountered.

The final report will describe the study methodologies in more detail and present the findings over the course of the study. For spawning gravel assessment, any statistically significant differences identified in the percent composition of fine sediments found at any location will be identified and discussed. For water quality monitoring, compliance with the conditions in the Idaho Department of Environmental Qualities Voluntary Consent Order with PacifiCorp will be reported, as well as the success of any measures employed to reduce the downstream movement of sediment. Reports will be due within 60 days of the completion of the annual spawning gravel assessment.

2.5 SUMMARY

This SOW consists of spawning gravel assessment above and below Ashton Reservoir that will commence prior to construction in 2010 and continue through rehabilitation of Ashton Dam with a final gravel assessment in 2013. The purpose of this program will be to document existing conditions during the summer of 2010 and document spawning gravel conditions after each main construction phase. Specific tasks to be completed to accomplish the study objectives include:

- Task 6 – Provide a combined annual report for Water Quality Monitoring and Spawning Gravel Assessment and final comprehensive report of Water Quality and Spawning Gravel

Assessment Results and analysis to PacifiCorp Energy evaluating effects of the Ashton Dam Remediation Project on temperature, turbidity and DO and spawning gravels.

- Task 7 – Define the range of suitable criteria that produce suitable rainbow and brown trout spawning habitat in the study reach.

- Task 8 – Identify and record specific sites in the study reach for sediment sample collection.

- Task 9 – Complete McNeil core sampling, data processing and statistical analysis.

APPENDIX D

KEY EMAIL COMMUNICATIONS

Patricia B. McIlvaine

From: Patricia B. McIlvaine [pbm@wright-pierce.com]
Sent: Saturday, July 31, 2010 11:42 AM
To: 'Ichisaka, Michael'
Cc: 'Garrett, Monte'; 'Stenberg, Mark'; 'Davies, Eve'
Subject: Information Request
Attachments: Document Request for Certification Review Process.doc

Pursuant to a discussion I had late last week with Mike, I am forwarding a list of information requests for the Ashton, Prospect No. 3 and Cutler projects. (Right now the Cutler list is limited as I haven't reviewed much of that file as of yet.)

This list is more extensive than normal since the Ashton and Prospect No. 3 projects were licensed in the 1980's. As such, documents in FERC's eLibrary (my typical source for documents I wish to review) only have the documents available as microfiche, which I cannot access. As such, in order to provide a timely review, I need to request them from you. My follow-up consultation with the Resource Agencies, an important aspect of the LIHI certification process, is significantly enhanced when I have a more complete understanding of their past/current concerns.

Please provide the requested information/documents as either scanned, faxed or hardcopy documents, whichever method is easiest for you.

I will not be available until next Wed (Aug 4) if you have any questions on this request. I can be reached at (207-798-3785) between noon and 4pm East Coast Time. Please feel free to call me at my home (207-688-4236) from 5pm to 8pm East Coast time if that works better for you. My fax number and mailing address are noted below.

Thanks

Pat

Pat McIlvaine | Project Manager

Wright-Pierce | Water, Wastewater & Infrastructure Engineers
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Document Request for Certification Review Process

For Ashton, Prospect No. 3 and Cutler

1. Copies of the latest two FERC Environmental and Public Use Inspection Reports and PacifiCorp Responses to any deficiencies identified. (My interest is in LIHI related issues but it will likely be easiest to send the entire documents....)

2. Summary listing of FERC License deviations associated with issues addressed by LIHI certification criteria. Please provide a summary of any events and resolution to the events (including whether the deviations were considered license non-compliance or not).

Ashton

1. A copy of the Water Quality Certification for the project.

2. Resource Agency comment letters associated with the application for license renewal that are referenced in the FERC order issuing the license.

3. The next questions/requests will help me understand the implications of the dam remediation project scheduled for 2010 - 2012 and how that project may impact LIHI certification:
   - Documentation of Resource Agency consultation associated with the dam remediation project including mitigative/preventive actions to be employed to address any issues raised by the resource agencies.
   - Please provide any requirements in the permits received for this project that address issues associated with LIHI certification.
   - Will there be any permanent operational changes following the dam remediation project that will affect (positively or negatively) issues of concern to LIHI certification (e.g. water flows)? What are these changes? Have such changes been approved by FERC? Were the Resource agencies involved in the review of such changes and did the have any concerns?
   - Please provide a copy of the sections of the Environmental Report prepared for the remediation project that address potential impacts and mitigative measures associated with issues evaluated for LIHI certification.

4. This request will help me understand the status of the original recommendations by Resource Agencies which recommended intake screening at St. Anthony to prevent fish entrainment concerns. As this screening was, in part, mitigation associated with fish losses at Ashton, I believe we need to understand the status of this issue. Therefore, please provide any documentation demonstrating status of the turbine survival studies, Resource Agency comments relative to these studies and final conclusions reached, including any FERC orders resolving the issue.

5. Please provide a summary of the results of the studies referenced on pages 45-53 (Article 402 Enhancement of Fisheries Resources) of the FERC license you provided, as well as

the implications to the project that resulted from these studies. Please include copies of any Resource Agency comments (in Appendix A???), recommendations and resulting FERC Orders.

6. Have the past reservoir drawdowns referenced in your Questionnaire (pg 5) raised any concerns from Resource Agencies? If so, what were the concerns and how were they addressed? Please provide any Resource Agency documents received documenting these issues were appropriately handled (if any exist).

7. Please provide a copy of the Idaho Parks and Recreation and National Parks Service comment letters regarding recreational enhancements. (referenced on page 5 of the EA)

8. Please provide a map showing the relative locations of the projects referenced in the EA. I believe that Figure 4 referenced in the EA would be sufficient.

9. Have there been any reports of other threatened or endangered species use of the Project since the original studies prepared as part of the License renewal? If so, have any new recommendations been issued by the Resource Agencies?

10. From what I can see from FERC's eLibrary, there were two deviations from flow requirements, one on May 14, 1991 and one on April 14, 2002. Did the Ashton project experience any other FERC license deviations which deal with issues applicable to LIHI certification? If so, please provide a summary of any events and resolution to the causes for events (including whether the deviations were considered license non-compliance or not). (Note this is the same question as #2 requested for all three projects.)

11. For the April 14, 2002 event, what changes have been implemented to address the recommendations identified by IDF&G in their letter of May 30, 2002 and the status of PacifiCorp's activities identified to be "addressed in the future" in your letter dated Aug 19, 2002 in response to IDF&G's letter.

12. Did FERC respond to the issues identified in Henry Forks Foundation Inc letter of 9/14/01? While such a letter does not appear to be part of a formal process, since the Foundation provided comments regarding your LIHI certification filing, I would like to understand what formal responses may have occurred in the past in response to questions from this organization.

Prospect No.3

1. Please provide a copy of the full FERC Order issued for the project license renewal. The copy provided in your LIHI certification application only included the Articles, and did not include the "upfront sections" of typical FERC orders. Such "upfront" sections address issues and comments raised by Resource Agencies which is important to LIHI certification.

2. Resource Agency comment letters (if any) associated with the application for license renewal that are referenced in the FERC order issuing the license.

3. Please provide a copy of the June 7, 1985 waiver from Water Quality Certification referenced in your Questionnaire response.

4. Please provide a copy of the FERC EA issued for the license renewal (as you did for the Ashton and Culter projects.)

5. Please specify what sections of the Recovery Plan for Northern Spotted Owl which you believe are applicable to this Project and what activities / programs are in place for the Project that demonstrate compliance with these Recovery Plan requirements. Please include any documentation that has been prepared by PacifiCorp or received from Resource Agencies dealing with this issue.

6. Have there been any reports of other threatened or endangered species use of the Project since the original studies prepared as part of the License renewal? If so, have any new recommendations been issued by the Resource Agencies?

7. Please provide a copy of the FERC Order and Resource Agency acceptance letters referenced on pg 14 of the Questionnaire approving your program under Article 401.

8. Please provide a copy of the FERC Order (Sept 7, 1989) referenced on pg 14 of the Questionnaire approving your program under Article 406. Also, please provide any Resource Agency letters which provided recommendations and/or agreement with your proposed program.

9. Please provide any documentation that illustrates compliance with the requirements to consult with the SHPO. As your Questionnaire response references "informal consultation", if no written correspondence exists, please provide a summary of verbal communications that have occurred for "larger" projects, listing the activity requiring consultation and results of such verbal communications. Copies of any telecons would suffice.

10. Please provide the FERC orders referenced on page 19 of your Questionnaire regarding recreational resources. Also, please provide documentation of any Resource Agency comments/recommendations which were received (if any exist) regarding recreational resource compliance.

Patricia B. McIlvaine

From: Lisa.Cawley@deq.idaho.gov
Sent: Thursday, August 05, 2010 5:18 PM
To: pbm@wright-pierce.com
Subject: Public Records Request
Attachments: Ashton Dam.pdf

On August 4, 2010, the Idaho Department of Environmental Quality received a request from you to examine and/or copy certain public records maintained by the Department. These records include the recently signed Voluntary Consent Order for the Ashton Dam.

Attached is the copy of record that falls within the scope of your request. If there are charges associated with your request, you will receive a separate mailing containing an invoice. Please contact me at (208) 528-2650 if you have any questions relating to your request.

Thank you,

Lisa Cawley
Public Records Custodian
Idaho Falls Regional Office

Patricia B. McIlvaine

From: Ichisaka, Michael [Michael.Ichisaka@PacifiCorp.com]
Sent: Monday, August 09, 2010 9:39 PM
To: pbm@wright-pierce.com
Cc: Mark Stenberg (Business Fax)
Subject: RE: Questions on letters

Hi Pat,
Please see answers inserted below.
Mike I

From: Patricia B. McIlvaine [mailto:pbm@wright-pierce.com]
Sent: Friday, August 06, 2010 7:17 AM
To: Ichisaka, Michael
Subject: Questions on letters

Mike

I checked again in the FERC database and found I was able to download some of the letters attached to your FERC filing dated 2/25/10. However, the "enclosure" references a IDFG ltr dated 1/29/10 to PacifiCorp. What I downloaded was one dated 1/08/10. [IDFG letter dated 1/8/10 is the correct letter – the postmark says 1/27/10 so we didn't receive it until the 29th] Also, it references a PC ltr to USFWS dated 1/28/10..yet what is downloaded is one dated 1/22/10 [looks like a typo in the date. I believe that the PC letter to USFWS dated 1/22/10 is the correct one – it is a consultation request]. Are these just errors in dates and that I actually have the right letters? Yes – those are the letters that were attached to the FERC filing.

Have you heard back from the SHPO on this request yet?
Yes – A response letter was received from the SHPO on March 12, 2010. The SHPO requested in this letter that PacifiCorp Energy contract with a consultant to perform ground reconnaissance for archeological resources in higher probability areas of the reservoir drawdown zone, material borrow areas and stockpile areas. The SHPO also requested that PacifiCorp Energy monitor for vandalism. PacifiCorp Energy will comply with the SHPO's requests.

Thanks
Pat

Pat McIlvaine | Project Manager

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Patricia B. McIlvaine

From: Ichisaka, Michael [Michael.Ichisaka@PacifiCorp.com]
Sent: Monday, August 09, 2010 9:28 PM
To: pbm@wright-pierce.com
Cc: Stenberg, Mark
Subject: RE: Ashton Flow violations

Hi Pat,
Please see responses inserted into your email below. Let me know if you need further clarification.
Thanks,
Mike Ichisaka

From: Patricia B. McIlvaine [mailto:pbm@wright-pierce.com]
Sent: Monday, August 09, 2010 8:10 AM
To: Ichisaka, Michael; Stenberg, Mark
Subject: Ashton Flow violations

Gentleman

Researching FERC's eLibrary I have been to identify license deviations at Ashton since 2000, both related to Article 401...one on April 14, 2002
and another some time apparently just prior to June 2003. I was able to review the documents associated with the 2002 event to understand that issue, but the two documents dated 06/04/03 in the eLibrary are classified as "privileged" so I could not view them.
[documents in eLibrary look like internal FERC memos for which PacifiCorp does not have copies. I believe that these were associated with deviations that occurred in 2002 rather than a new event – see explanation below]

I am also aware of the fluctuating water flow concerns raised by the Henry's Fork Foundation in 2001 and can see that it was determined by FERC to not be an issue that PacifiCorp had control over.

If you could provide me a summary of what the 2003 event was, what FERC's assessment was regarding it being a violation or not and if it was considered a violation, what actions PC took to prevent reoccurrence, that should be all I need in terms of license compliance issues at Ashton.
Two of the three eLibrary documents dated 6/4/2003 appear to be internal FERC memos to which PacifiCorp does not have access or copies.
I believe that these FERC memos relate to a deviation in reservoir elevation due to a computer malfunction that occurred on 7/23/02 that was reported to FERC in a 3/26/03 letter from PC to FERC that summarized Article 401 Reservoir and River Flow Data. The FERC Portland Regional Office acknowledged receiving PacifiCorp's 3/26/03 letter on 6/4/03 (the same date as the two eLibrary internal FERC memos). In their 6/4/03 letter to PacifiCorp, FERC replied that because the 2002 deviation was not reported as soon as it occurred, it was referring the matter to the FERC Div Hydropower Admin and Compliance office for further review. I searched PacifiCorp's electronic and hard copy files and eLibrary but I couldn't find any further correspondence from FERC on this matter. I don't believe that any violation notices were issued or we would have a record.

There were minor deviations in reservoir elevations that occurred in 2003.
In the winter-spring of the 2002-2003 water year (October 2002 through September 2003), there were 7 minor deviations in reservoir elevations that were reported in a Reservoir and River Flow Data summary letter from PacifiCorp to FERC dated 3/15/2004 (letter is classified as CEII on eLibrary). This letter includes an explanation of the causes of these deviations, five of which were attributed to unusual winter ice formations on bridge construction work upstream of the reservoir that caused severe in-channel storage and flow blockage and two were attributed to high spring transitional flow conditions that exceeded plant facility capabilities; both situations were beyond PacifiCorp's control. PacifiCorp indicated that operators will continue to make necessary adjustments in the most timely manner possible to respond to unusual conditions and that PacifiCorp has

procedures to report incidents within 10 days of the events. The PacifiCorp letter states that no comments from agencies or the general public were received on these incidents and given the minor reservoir elevation variations outside the deadband, PacifiCorp believed that no adverse effects on the environment or irrigation system deliveries downstream occurred. I couldn't find any response by FERC to this 3/15/2004 letter in our files or eLibrary.

I didn't find further correspondence on reservoir elevation deviations in subsequent years. Nor did I see any notices of violations.

A new upgraded computer system installed in 2008 is believed to have improved adherence with the reservoir elevation deadband requirement.

Thanks

Pat

Pat McIlvaine | Project Manager

Wright-Pierce | Water, Wastewater & Infrastructure Engineers
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Patricia B. McIlvaine

From: Ichisaka, Michael [Michael.Ichisaka@PacifiCorp.com]
Sent: Wednesday, August 11, 2010 7:32 PM
To: pbm@wright-pierce.com
Cc: Garrett, Monte; Stenberg, Mark
Subject: LIHI application Information Response - Ashton questions #4 & #5
Attachments: Info request Part3 - Ashton #4 and #5.zip

Hi Pat,
Here's more information that you requested in your email dated August 3, 2010. The attached file **Info request part3-Ashton #4 & #5.zip** contains the material related to Ashton that we've found so far. The answers and documents listed below in blue pertain to the question and numbering from your information request.

Ashton:

4. This request will help me understand the status of the original recommendations by Resource Agencies which recommended intake screening at St. Anthony to prevent fish entrainment concerns. As this screening was, in part, mitigation associated with fish losses at Ashton, I believe we need to understand the status of this issue. [I don't believe that the screening at St. Anthony was related to fish losses at the Ashton Dam, rather it was related to losses at the St. Anthony powerhouse and entrainment into the Egin Irrigation Canal. Mitigation for turbine-induced losses at Ashton Dam entails reservoir fish stocking. See explanations below]
Therefore, please provide any documentation demonstrating status of the turbine survival studies, Resource Agency comments relative to these studies and final conclusions reached, including any FERC orders resolving the issue.

   Ashton Reservoir mitigation:
   The License Order indicates that mitigation for Ashton Reservoir was contained in PacifiCorp's Fisheries Mitigation Plan. At Ashton Reservoir, any turbine-related mortality would be compensated for through a reservoir stocking program that is tied to fish size and catch rates in the reservoir. In the License Order (FERC 8/3/87, Page 28), FERC states that the plan has been accepted by IDFG and provides adequate mitigation for the impacts of Ashton Reservoir: *The applicant's detailed fishery mitigative plan for the Ashton Reservoir, which includes a study to assess the productivity of the fishery and a fish stocking program, has been accepted by IDFG. The applicant's proposed fishery mitigative plan, included in the Report on Fish, Wildlife, and Botantical Resources, filed December 31, 1984, as Section 3 of the Exhibit E (Environmental Report), pages E-26 through E-37 (following), should provide for adequate mitigation of major project impacts to the fishery resource of the Henry's Fork in Ashton Reservoir.*

   Turbine mortality study results for Ashton Dam facility:
   FERC issued an order approving PacifiCorp's turbine mortality monitoring plan on September 29, 1988. This study estimated turbine-induced mortality at both the Ashton Dam and St. Anthony facilities. The turbine mortality study report was completed in August 1990. For Ashton Dam, the turbine mortality study indicated that entrainment impacts were estimated from a literature review of turbine mortality studies from projects with similar types of turbines. The resource at risk was determined by utilizing the data obtained from a two year fisheries evaluation study conducted by Idaho Game and Fish. The study indicated that Ashton Reservoir has a composition of about 97% non-game fish and 3% salmonids. The literature reviews also indicated that if fish entrainment did occur, the turbine-induced mortality would be low. The replacement of the Unit 1 turbine will also reduce the mortality significantly. The study concluded that for the Ashton facility, the proposed

fishery enhancement plan, required by Article 402, will more than compensate for the fishery at risk due to turbine-induced mortality. A comment letter from IDFG on 9/27/90 criticized some of the conclusions regarding the St. Anthony results but for Ashton Reservoir, they agree that the License Article 402 fishery enhancement plan is the mitigation and they urge implementation. PacifiCorp subsequently agreed to pay for stocking of rainbow trout in the Ashton Reservoir and to fund an upgrade to the Ashton Fish Hatchery so they can raise the trout (see letter from PacifiCorp to FERC dated 6/21/91 responding to IDFG comments on turbine mortality study; also see the final resolution in 11/3/1995 letter from PC to FERC regarding the Final Ashton Reservoir Fish Stocking Plan with agency comments attached).

- **1988.09.29_FERC Order approving Turbine Mort Monitoring Plan.pdf**
- **1990.9.27 IDFG to PC comments on Turbine Mortality Study.pdf**
- **1990.9.25 USFWS comments on Turbine Mortality Study.pdf**
- **1991.6.21 PC response to FERC on IDFG comments on Turbine Mort Study.pdf**

St. Anthony facility:
An annual fish salvage operation in the Egin Irrigation Canal is the mitigation for losses of fish at the St. Anthony facility. The Fish Salvage Plan letter (with agency comments) dated 4/17/97 summarizes the history of the mitigation requirements that were linked to turbine losses at the St. Anthony facility and screening of the Egin Irrigation Canal. The turbine mortality study indicated that there was approximately a 10% mortality associated with the St. Anthony turbines. The net estimated loss was calculated to be 50 trout. IDFG responded that they were interested in both trout and whitefish. Revised turbine-induced mortality estimates for both species was 10-20% which predicted a loss of 61 to 329 fish. PacifiCorp agreed to inflate morality estimates to approximately 300 fish. The Fish Salvage Plan requires that PacifiCorp will make every attempt to salvage all salmonids within the first half mile of the canal downstream of the headgate; if the minimum number of 300 salmonids is not obtained, efforts will be extended further down t he canal until this number is met. IDFG agreed that this constitutes the mitigation for turbine-induced fish mortalities at the St Anthony project (see April 28, 1985 letter from IDFG to PacifiCorp). The Fish Salvage Plan was approved by FERC on 7/1/97 (see FERC order approving fish salvage plan dated 7/1/97). The salvage has been conducted each year and the required reports have been submitted to FERC annually. Annually, a high number of salmonids are salvaged from the Egin Canal by PacifiCorp. The latest annual fish salvage report accepted by FERC in 12/17/09 indicated that there were 2,293 salmonids salvaged; this number greatly exceeds the 300-fish mitigation requirements.

- **1997.4.17 Article 404 Fish Salvage Plan and correspondence.pdf**
- **1997.7.1 Order Approving Fish Salvage Plan.pdf**
- **2009.12.17 FERC Accepts St Anthony 2009 FishSalvgRpt.pdf**

5. Please provide a summary of the results of the studies referenced on pages 45-53 (Article 402 Enhancement of Fisheries Resources) of the FERC license you provided, as well as the implications to the project that resulted from these studies. Please include copies of any Resource Agency comments (in Appendix A???), recommendations and resulting FERC Orders.

Article 402 adopts a fisheries mitigation plan from the Exhibit E:

> *Article 402. The following part of the Report on Fish, Wildlife and Botanical Resources, filed on December 31, 1984, as Section 3 of Exhibit E (the Environmental Report), is approved: pages E-26 to E-37 pertaining to the fishery mitigative plan for the Ashton Reservoir.*

The approved fisheries mitigation plan included a list of studies that were to be conducted on Ashton Reservoir. From 1985 through 1987, Utah Power & Light (PacifiCorp) funded a research project through the Idaho Department of Fish and Game (IDFG) to evaluate the reservoir fishery relative to surrounding river reaches. In accordance with License Article 402, the study (Maiolie, 1987 –see attached) included investigations on reservoir limnology, creel survey, trout strains, trout stocking, fish sampling, reservoir currents and diet analysis. The conclusions in the final report indicated that Ashton Reservoir temperature and oxygen levels were suitable for trout growth and survival but low zooplankton densities due to the short reservoir retention time contributed to low overwinter survival

rates. Stocking the reservoir with catchable size trout successfully increased the annual catch rate. Recommendations included fish stocking rates that were to be adjusted to match changes in fishing pressure, and also increasing access to the midsection of the reservoir.

- **Maiolie 1987 Ashton Reservoir Fishery Enhancement Eval Report.PDF**

The IDFG had accepted the concept that mitigation for fish losses due the Ashton facility would be compensated through a fish stocking program (see answer to question #4 above). After extensive discussions with IDFG, PacifiCorp and IDFG agreed to the final details of a fish stocking plan (see 11/3/1995 letter from PC to FERC regarding the Final Ashton Reservoir Fish Stocking Plan with agency comments attached). In this plan, PacifiCorp agreed to provide funding to IDFG to perform the fish stocking and upgrade the Ashton Fish Hatchery. PacifiCorp believes that this fulfills the requirements of Article 402.

- **1995.11.3 PC to FERC Final Ashton Reservoir Fish Stocking Plan with comments.pdf**

Let me know if you have questions on these.

Mike Ichisaka

Patricia B. McIlvaine

From: Patricia B. McIlvaine [pbm@wright-pierce.com]
Sent: Thursday, August 12, 2010 11:28 AM
To: 'suzi.pengilly@ishs.idaho.gov'
Subject: Follow-up to my telephone messages

Ms. Pengilly

As mentioned in my telephone messages to you on August 5 and 10, 2010, I am serving as the independent reviewer for the Low Impact Hydropower Institute on PacifiCorp's application for certification of the Ashton Hydropower Project as a "low impact facility". Part of my review is to consult with individuals who are knowledgeable of the project, its environmental license requirements and recommendations that may have been made regarding environmental concerns by agencies such as the State Historic Preservation Office. I would like to discuss with you, some of the key information presented in their application, and to determine if there are any issues associated with the Project regarding compliance with the FERC license or other recommendations made at the time of license renewal. I would like to get your perspective on their stewardship policies, timeliness of their actions, etc. related to those issues/resources for which your organization is most interested in seeing protected.

I would appreciate the opportunity to discuss the project with you. Please recognize that this is not a request for review of a new project, rather just follow-up on consultation that has already taken place between your office and PacifiCorp. If you believe that you have no specific issues, concerns or comments you wish to share with me, please feel free to let me know that by email if that better suits your needs.

I look forward to hearing from you. I can be reached at 207-798-3785 from 8am to 1pm East Coast time. You can also try me at my home at 207-688-4236 from 2pm to 7pm East Coast time if that time slot works better for you.

The following link will connect you to the application made by PacifiCorp to the Low Impact Hydropower Institute for this project.

http://www.lowimpacthydro.org/lihi-pending-application-ferc-no.-2381-ashton-hydroelectric-project-henrys-fork-river-idaho.html

Thank you for your time.

Pat McIlvaine

Pat McIlvaine | Project Manager

Wright-Pierce | Water, Wastewater & Infrastructure Engineers
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Tel 207.725.8721 x.3785 | Fax 207.729.8414

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Patricia B. McIlvaine

From: Patricia B. McIlvaine [pbm@wright-pierce.com]
Sent: Thursday, August 12, 2010 11:16 AM
To: 'edary@fs.fed.us'
Subject: Folllow-up to my telephone message

Ms. Dary

As mentioned in my telephone messages to you on August 10, 2010, I am serving as the independent reviewer for the Low Impact Hydropower Institute on PacifiCorp's application for certification of the Ashton Hydropower Project as a "low impact facility". Part of my review is to consult with individuals who are knowledgeable of the project, its environmental license requirements and recommendations that may have been made regarding environmental concerns by agencies such as the U.S. Forest Service. I would like to discuss with you, some of the key information presented in their application, and to determine if there are any issues associated with the Project regarding compliance with the FERC license or other recommendations made at the time of license renewal. I would like to get your perspective on their stewardship policies, timeliness of their actions, etc. related to those issues/resources for which your organization is most interested in seeing protected.

I would appreciate the opportunity to discuss the project with you. I understand that you are new to the District Ranger position at Ashton, having recently replaced Adrianne Keller who retired. If you believe that you have no specific issues, concerns or comments you wish to share with me, please feel free to let me know that by email if that better suits your needs.

I look forward to hearing from you. I can be reached at 207-798-3785 from 8am to 1pm East Coast time. You can also try me at my home at 207-688-4236 from 2pm to 7pm East Coast time if that time slot works better for you.

The following link will connect you to the application made by PacifiCorp to the Low Impact Hydropower Institute for this project.

http://www.lowimpacthydro.org/lihi-pending-application-ferc-no.-2381-ashton-hydroelectric-project-henrys-fork-river-idaho.html

Thank you for your time.

Pat McIlvaine

Pat McIlvaine | Project Manager

Wright-Pierce | Water, Wastewater & Infrastructure Engineers
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Serving New England for Over 60 Years

Patricia B. McIlvaine

To: tom.bassista@idwr.idaho.gov

Subject: Follow-up to my telephone messages

Mr. Bassista

As mentioned in my telephone messages to you on August 5 and 10, 2010, I am serving as the independent reviewer for the Low Impact Hydropower Institute on PacifiCorp's application for certification of the Ashton Hydropower Project as a "low impact facility". Part of my review is to consult with individuals who are knowledgeable of the project, its environmental license requirements and recommendations that may have been made regarding environmental concerns by agencies such as the Idaho Department of Water Resources. I would like to discuss with you, some of the key information presented in their application, and to determine if there are any issues associated with the Project regarding compliance with the FERC license or other recommendations you believe were made at the time of license renewal. I would like to get your perspective on their stewardship policies, timeliness of their actions, etc. related to those issues/resources for which your organization is most interested in seeing protected.

I would appreciate the opportunity to discuss the project with you. If you believe that you have no specific issues, concerns or comments you wish to share with me, please feel free to let me know that by email if that better suits your needs.

I look forward to hearing from you. I can be reached at 207-798-3785 from 8am to 1pm East Coast time. You can also try me at my home at 207-688-4236 from 2pm to 7pm East Coast time if that time slot works better for you.

The following link will connect you to the application made by PacifiCorp to the Low Impact Hydropower Institute for this project.

http://www.lowimpacthydro.org/lihi-pending-application-ferc-no.-2381-ashton-hydroelectric-project-henrys-fork-river-idaho.html

Thank you for your time.

Pat

Pat McIlvaine | Project Manager

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Patricia B. McIlvaine

From: Ichisaka, Michael [Michael.Ichisaka@PacifiCorp.com]
Sent: Thursday, August 12, 2010 6:34 PM
To: pbm@wright-pierce.com
Cc: Stenberg, Mark
Subject: RE: Copy of letters - please resend - also see answers for #7 rec letters, #8 maps, #9 ESA, and #1 WQC
Attachments: WQC 1985 Ashton.pdf; Ashton - #8 - maps.zip; Ashton - #7 - recreation letters.zip

Hi Pat,
I didn't get any attachments with your email. Could you please resend them?

For Question1 – WQC, I thought that I emailed that to you in the first transmittal on 8/5/10 with attachments for Ashton #1 – WQC and #12 – HFF letter (also included some P3 responses). Did you get that email or should I resend?

I'm working on the other questions. I'm still looking for correspondence file boxes from our records management archives. I just received a couple of boxes with the Ashton license application but they didn't include the older First Stage Consultation or any of the newer FERC EA/FERC order correspondence. They're still looking to see if there is anything else. These Ashton records are coming from Salt Lake City so I can't directly search for them.

For question #2, letters that were referenced in the license order - I may have some of them if they were part of the consultation on the license application and were attached to the license application but since the license order came later and was a result of the FERC process after PacifiCorp submitted the application, we may not have them.

For question #3 on the dam remediation, I need to wait until Mark Stenberg is available (He has been out on personal time but should be back next week). Mark is the most knowledgeable about that project and although there is a pretty good environmental report, it has some security restrictions. If we can't share it, I'll see if I can cut and paste answers from it.

Questions #4 & 5 – see previous email on 8/11/10

Questions #6, #10 & 11, and general questions 1 & 2 – I have some documentation of the compliance record but there are gaps, especially with the older periods. I need to sort out what I have and send it.

Here's some more answers:

7. Please provide a copy of the Idaho Parks and Recreation and National Parks Service comment letters regarding recreational enhancements. (referenced on page 5 of the EA)
   - **1984.7.13 NPS to PC rec consultation.pdf**
   - **1984.8.14 IDPR to PC re consultation.pdf**
   - **1984.9.17 NPS to PC rec consultation.pdf**
   - **1984.11.1 IDPR to PC rec consultation.pdf**

8. Please provide a map showing the relative locations of the projects referenced in the EA. I believe that Figure 4 referenced in the EA would be sufficient.
The attached zipfile has some map showing the locations of the Ashton and St. Anthony projects and details of St. Anthony for question #8.
I don't have figure 4 in the EA but the following maps show the relative project locations. The Ashton and St. Anthony projects are approximately 12 miles apart.
   - **Ashton_St Anthony vicinity map.pdf**
   - **Fig 1-1 FishMortalityStudy Rept.pdf**
   - **Fig 1-2 FishMortalityStudy Rept.pdf**
   - **St_Anthony development orthophoto.pdf**

9. Have there been any reports of other threatened or endangered species use of the Project since the original studies prepared as part of the License renewal? [No. Bald eagles use the reservoir but they were delisted.] If so, have any new recommendations been issued by the Resource Agencies?

   The environmental report for the Ashton Dam remediation project summarizes the most recent consultation with the USFWS for the project area and concludes that no listed species are present. On January 22, 2010, PacifiCorp Energy sent a request to the USFWS for consultation on federally listed threatened or endangered species as well as license compliance. The consultation request included a written scope of work for the dam remediation project, a draft reservoir elevation chart, a 30 percent design plan set and the draft License Compliance Report. On January 28, 2010, the USFWS sent a letter providing the finding that no listed species are present. The FWS recommended in their letter that PacifiCorp Energy identify and implement measures to assure that the project complies with the Migratory Bird Treaty Act (MBTA). Following receipt of this recommendation PacifiCorp Energy modified its project schedule to move the start and completion date for early year drawdown events to start approximately March 15 and be completed by April 1 to assure that reservoir levels are not changed after waterfowl have nested. This commitment was made in a PacifiCorp Energy response letter on February 12, 2010.

Also, please see comments inserted below.

Thanks.
Mike Ichisaka
(503) 813-6617

From: Patricia B. McIlvaine [mailto:pbm@wright-pierce.com]
Sent: Thursday, August 12, 2010 7:17 AM
To: Ichisaka, Michael
Subject: Copy of letters

Mike

Please see attached letters 2002 (which I found on FERC's website). Am I correct in assuming that the 2008 computer upgrade you referenced in your email from Monday is the same one proposed for 2006 in the attached letter from 081902?
It probably is – I need to see the letter to verify. There was a software upgrade done around the year 2000 followed by a computer & software upgrade in late 2008.

Regarding my reference linking the screening at St Anthony to Ashton fish losses, the statement below is part of the discussion in your FERC license on page 2 of 53. However I am happy to instead utilize the information you provided in your other email.
On the St. Anthony screening issue, I now see where you got this from - thanks. According to FERC's description in the 10j section of the license, the IDFG filed a motion to intervene that recommended screening at St. Anthony to prevent mortality of wild trout and as mitigation for hatchery trout at Ashton. I can't find IDFG's motion to intervene so I don't have all the facts but in reviewing the IDFG letters in the License Application, none of their letters mention a link between the screening at St. Anthony and mitigation for trout losses at Ashton. Further on in the 10j section of the license, FERC indicates that IDFG reviewed PacifiCorp's alternative measures and agreed to consider them pending results of the post-operational monitoring studies and evaluation of non-screening alternatives. Since the motion to intervene is filed early in the licensing process, recommendations likely represent IDFG's first thoughts on mitigation and perhaps by the time that the license application was finalized, other mitigation options relative to each respective project were being discussed. In the end, after the

required studies were conducted, agreement was reached with IDFG on acceptable mitigation measures that were designed to compensate for fish losses (stocking the Ashton Reservoir, and fish salvage at St. Anthony). If the issue was mitigation for losses of hatchery trout at Ashton, the reservoir stocking program compensates for those losses.. At St. Anthony, PacifiCorp's annual Egin Canal fish salvage also returns a high number of fish to the Henry's Fork that would otherwise be "lost" down the irrigation canal.

Thanks for all of the information. On Ashton, all I still need is the answers to questions Nos 1, 3 and 8. (I found my way around several of the others.) If you cannot locate the WQC, let me know. And regarding 8....it does not have to be the map from the EA...but any map showing the relationship of Ashton, St Anthony and the EIG dam would be great. It is not critical, but would make review of my report by the LIHI Board easier to understand.

Pat

For the protection of fish resources in the Henry's Fork River, IDFG recommended various measures that would minimize project effects on these resources. The EA generally concurred in IDFG's assessment of the project impacts, except for its recommended mitigation regarding fish entrainment. IDFG recommended screening at the St. Anthony Development to prevent mortality of wild trout and also as mitigation for the loss of predominantly hatchery trout at the upstream Ashton Development. However, review of the St. Anthony Development intake design and position relative to that of the EIC intake suggests that, if entrainment is occurring, the majority of fish would be entrained to the EIC rather than to the St. Anthony Development intake. Because of this, the EA concluded that entrainment and turbine-related mortality of trout would be insignificant; however, to ensure that fish entrainment mortality would not be significant, the EA recommended a post-operational monitoring study at the St. Anthony Development.

From: Ichisaka, Michael [mailto:Michael.Ichisaka@PacifiCorp.com]
Sent: Wednesday, August 11, 2010 3:17 PM
To: Patricia B. McIlvaine
Subject: RE: Email problem

Hi Pat,
Thanks for letting me know of the email problem - I haven't sent anything yet today but have some Ashton fisheries information that I'll send this afternoon.

I'm looking for information to answer your question #11 on Ashton from your list in "Document Request for Certification Review Process.doc." Could you send me copies of the letters that you referenced below?

11. For the April 14, 2002 event, what changes have been implemented to address the recommendations identified by IDF&G in their letter of May 30, 2002 and the status of PacifiCorp's activities identified to be "addressed in the future" in your letter dated Aug 19, 2002 in response to IDF&G's letter.

Thanks,
Mike I
(503) 813-6617

From: Patricia B. McIlvaine [mailto:pbm@wright-pierce.com]
Sent: Wednesday, August 11, 2010 11:46 AM
To: Ichisaka, Michael
Subject: Email problem

Hi Mike

We had a temporary problem with our email system earlier today....so if you sent me anything between 9am to 2pm today it likely did not reach me...and may have been sent back to you as "undeliverable".

If you did send me anything within that time frame, could you please send it again?

Thanks

Pat

Pat McIlvaine | Project Manager

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