

115 FERC ¶62,205  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp

Project No. 20-065

ORDER AMENDING LICENSE AND REVISING ANNUAL CHARGES

(Issued May 23, 2006)

On August 16, 2005, PacifiCorp (licensee) filed an application for amendment of license for the Bear River Project to remove its Cove development and reduce minimum flow requirements in the bypassed reach of the Grace development. Both the Grace and Cove bypassed reaches pass through sections of BLM-administered land. However, no federal land falls within the zone potentially disturbed by removal of facilities. The project is located on the Bear River in Caribou and Franklin counties, Idaho.

PROJECT DESCRIPTION

On December 22, 2003<sup>1</sup>, the Commission issued a new license which combined Oneida development (P-472), Grace/Cove development (P-2401), and Soda development (P-20) and renamed it the Bear River Project (P-20). The Bear River Project as a whole has an installed power generation capacity of 84.5 MW. The Grace-Cove developments, operating in concert, have an installed capacity of 40.5 MW. The Cove development has an installed capacity of 7.5 MW.

The Cove development is located on the Bear River south of Grace, Idaho. The development has a total of 117 acres land, of which 114 acres are PacifiCorp's land and 3 acres are federal land, within its project boundary. The project area occupies 66 acres located between the upstream Grace tailrace and the downstream Cove tailrace. The facilities include: (1) a 26.5-foot-high and 141-foot-long concrete dam containing a 10-acre (60-acre-foot) forebay; (2) an 88-foot-wide intake structure containing five 12-foot-wide openings, fitted with vertical bar screens, a transition section to rectangular flume, and Tainter gate just upstream of the flume, measuring 20 feet by 14.5 feet; (3) a 6,125-

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<sup>1</sup> 105 FERC ¶ 62,207.

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foot-long conveyance flume consisting of a 425-foot-long concrete section and a 5,700-foot-long wooden flume section; (4) a 550-foot-long steel penstock; (5) a 28.5-foot by 46-foot powerhouse containing a single Francis turbine; (6) an unlined open-channel tailrace; (7) a substation containing step-up transformers, located adjacent to the powerhouse; and (8) a 46-kV transmission line to the Grace substation and to the Cove West substation.

Article 408 of the license requires PacifiCorp to release 80 cubic feet per second (cfs), or inflow, whichever is less, in addition to 2 cfs leakage below Grace Dam.<sup>2</sup> Article 408 also requires the release of 10 cfs or inflow, (from October 1 through March 31) and 35 cfs or inflow (from April 1 through September 30), whichever is less, in addition to current leakage from Cove Dam.

## BACKGROUND

In May and September 2000, failures of the Cove flume caused erosion and scouring, and ultimately resulted in sediment releases into the Bear River.<sup>3</sup> Articles 302 through 306 of the license required the filing of plans and specifications and other necessary documents prior to the flume's rehabilitation. Concurrently, the Bear River Settlement Agreement on Relicensing (Relicensing SA), dated August 28, 2002, and the new license for the project stipulated various types of fish protection and enhancement measures for the Bonneville Cutthroat Trout (BCT), an Idaho species of concern.

Article 403 of the license required PacifiCorp to develop a comprehensive BCT restoration plan,<sup>4</sup> in consultation with the Environmental Coordination Committee (ECC).<sup>5</sup> As a provision of this plan, article 403 required the licensee to study the feasibility of improving passage at the Cove development, to include an assessment on decommissioning the development. The licensee addressed this provision of the plan in reports filed with the Commission on September 1, and December 10, 2004. This work ultimately led to the licensee's August 16, 2005 amendment application and Cove SA.

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<sup>2</sup> 113 FERC ¶ 62,167 (2005).

<sup>3</sup> For a detailed history, see 105 FERC ¶ 62,207 (2003).

<sup>4</sup> This plan, with the exception of the Cove decommissioning study provision, was approved by the Commission on December 2, 2004 (see 109 FERC ¶ 62,151).

<sup>5</sup> Established pursuant to Article 402 and Section 4.1 of the Relicensing SA.

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## THE AMENDMENT

PacifiCorp proposes to amend the license to remove its Cove development to and reduce minimum flow requirements in the bypassed reach of the Grace development for the Bear River Project. PacifiCorp would remove the Cove development consistent with the terms and schedule contained in the Cove SA and the Removal Plan. Under the proposal, PacifiCorp would deconstruct and remove project facilities, including the dam and sediment, penstock intake superstructure, flume, and all petroleum products and station batteries in powerhouse of the Cove development, and adjust minimum flows in the Grace bypassed reach to compensate for deconstruction and removal costs.

Construction activities would commence in July 2006 and continue through November 2006. Demolition work in the Cove's forebay area would be performed during October and November when river flows are typically low in order to minimize sediment transport potential.

PacifiCorp proposes to decommission the Cove development but believes the cost of such a measure would, on its own, be prohibitive. In view of these considerations, the Parties have agreed on a proposal to reduce the required minimum flow release in the Grace bypassed reach from 80 to 63 cfs. The licensee proposes to amend Article 408 to eliminate any reference to minimum flow requirements at the Cove development. Reducing flows in the Grace bypassed reach would provide PacifiCorp with 17 cfs of additional flow for power generation at the Grace powerhouse that would partially offset the loss of Cove development generation.

In addition, in the event that decommissioning costs are less than \$2.5 million net present value (NPV; in 2005 dollars), PacifiCorp proposes to provide additional mitigation funds for use by the ECC in an amount equal to the difference between \$2.5 million NPV and the decommissioning costs.

## CONSULTATION

The licensee included with its August 16, 2005 application the Cove SA. Signatories to the Cove SA, with an effective date of July 20, 2005, include: PacifiCorp; U.S. Fish and Wildlife Service (FWS); U.S. Bureau of Land Management (BLM); U.S. National Park Service (NPS); U.S. Forest Service (FS); Shoshone-Bannock Tribes (Tribes); Idaho Department of Environmental Quality (IDEQ); Idaho Department of Fish and Game (IDFG); Idaho Department of Parks and Recreation (IDPR); Idaho Council of Trout Unlimited (ITU); Idaho Rivers United (IRU); Greater Yellowstone Coalition (GYC); and American Whitewater (AW). The parties to the Cove SA support the licensee's proposal to decommission the Cove development and, in efforts to offset

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associated costs, reduce the minimum flow in the Grace development bypassed reach from 80 to 63 cfs, or inflow, whichever is less, in addition to 2 cfs leakage from Grace Dam.

## PUBLIC NOTICE

The Commission public noticed the licensee's application on October 11, 2005, with a comment period ending November 14, 2005. The State Of Idaho, the licensee, the Franklin County Fish and Game Association, U.S. Department of Interior, Mr. Stan Christensen, City of Soda Springs, and State Senator Robert L. Geddes all filed comments in response to the Commission's notice. Only the State of Idaho filed a Motion to Intervene in the proceeding. In general, PacifiCorp, the State of Idaho, and the Franklin County Fish and Game Association expressed support for decommissioning the Cove development. Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney did not. The Department of Interior indicated it had no comments. These comments are fully described and addressed in the Commission's EA, as attached to this order.

## WATER QUALITY CERTIFICATION

Section 401(a) (1) of the Clean Water Act (CWA)<sup>6</sup> and Commission regulations require that an applicant for a federal license or permit to conduct an activity that may result in a discharge into waters of the United States must provide the licensing or permitting agency with water quality certification (WQC) that the discharge would not violate water quality standards from the applicable state. The federal agency may not authorize the activity unless certification has been obtained or the state has waived certification through failure to act on the request for certification within 1 year after receipt of that request. By letter dated January 13, 2006, we informed the licensee that water quality certification was necessary and asked for documentation of a WQC or a waiver from the IDEQ. The IDEQ issued a certification on April 7, 2006, for the proposal. Conditions of the WQC are discussed in the EA, and are attached to this order, as Appendix A. These conditions are required and made a part of this order.

## NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency take into account the effect of the proposed undertaking on any historic

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<sup>6</sup> 33 U.S.C. § 1341(a)(1).

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property. Historic properties include districts, sites, buildings, structures, traditional cultural properties and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register.

The NHPA also provides for the appointment of State Historic Preservation Offices (SHPOs) to facilitate the implementation of federal cultural resource policy at the state level, and requires the federal agency to consult with Native American tribes who attached religious or cultural importance to cultural resources under their jurisdiction.

As discussed in the EA, the licensee and the SHPO executed a Memorandum of Agreement, titled *Memorandum of Agreement between the licensee and the Idaho State Historic Preservation Office, on the Decommissioning of the Cove Hydroelectric Project*, dated April 24, 2006, which outlines those measures that will be taken to mitigate for the adverse impact on historic properties that will result from the decommissioning of the Cove development. Also, as recommended in the attached EA, the licensee should provide cultural resources sensitivity training to all decommissioning personnel and place protective barriers around all known archaeological sites in the Cove development area.

## ENDANGERED SPECIES ACT

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of such species.

By letter to the licensee, dated December 1, 2005, the Commission notified the FWS that the licensee was designated the Commission's non-federal representative for consultation in this matter. Subsequently, the licensee requested initiation of consultation with the FWS by letter dated December 28, 2005. The licensee concluded that the proposed action, may affect, but is not likely to adversely affect, listed species that may occur in the project area. By letter dated January 6, 2006, the FWS concurred with that determination.

## DISCUSSION

### 1. Licensee's Proposed Articles

First and foremost, we acknowledge the parties efforts in developing the Cove SA, the project removal plan, and the proposed license articles. The Commission generally favors the development of such settlement agreements and often adopts many of the provisions of such settlements. In the case here, the licensee proposes three articles to be

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included in any amendment of license. In sum, these articles are: (1) the adoption of the project removal plan included with the application; (2) a decommissioning funding article, where any excess funds related to decommissioning would be provided to the ECC; and (3) modifying article 408 to remove the Cove bypassed reach minimum flow requirement and reduce flow in the Grace bypassed reach to the lesser of 63 cfs, or inflow.

We have reviewed the project removal plan and find that the plan generally defines how the Cove facilities will be removed and how the affected property will be regraded and seeded. Therefore, we recommend inclusion of the project removal plan article, as shown in ordering paragraph (B). Likewise, the proposed modifications to article 408 are consistent with what has been agreed to and we found in the EA, attached to and made part of this order that restoration of natural flow in the Cove bypassed reach would be beneficial and that the proposed reduction in flow in the Grace bypassed reach would not result in significant effects on the resources in that reach. Therefore, article 408 should be so modified, as shown in ordering paragraph (L).

Regarding the proposed funding article, the Commission generally does not favor such funds.<sup>7</sup> Rather, we prefer to require specific measures to resolve specific project impacts. This is particularly true where, as is the case here, it is not clear to what extent the funds will be used for activities related to the project. Therefore, we will not adopt this proposed article as a requirement under the license.

## 2. Project Features Change

Removal of the Cove development would reduce the Bear River Project's authorized installed capacity by 7.5 MW and the federal lands used by the project by 3 acres; the authorized installed capacity would be reduced from 84.5 MW to 77 MW, and the federal lands from 510.59 to 507.59 acres. As a result, article 201 of the license is revised to reflect the change in the annual charges, as shown in ordering paragraph (M). Deletion of the decommissioned Cove development from the license may become effective only upon the fulfillment by the licensee of such obligation under the license as the Commission may prescribe. As such, in addition to the requirements under the attached WQC that we will require in ordering paragraph (D), we will also require the filing of plans and specifications before undertaking demolition, as shown in ordering paragraph (G) and (H). In ordering paragraph (I) we will require the filing of monthly progress reports during decommissioning activities. After completion of

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<sup>7</sup> See 110 FERC ¶ 61,056 (2005).

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decommissioning activities, the licensee must file documentation that the Cove development facilities have been removed and the site restored in accordance with the approved plans, as shown in ordering paragraphs (J). The deletion will not be effective until all these conditions have been satisfied and the Portland Regional Engineer has issued a letter notice stating such. To reflect the as-built conditions of the project after all decommissioning activities are final, we will require the licensee to file revised Exhibits A, F and G, as shown in ordering paragraph (K).

### 3. Environmental Review

The Commission prepared the EA pursuant to the National Environmental Policy Act of 1969, and concluded that approval of the license amendment would not be a major federal action significantly affecting the quality of the human environment. Demolition and removal of the dam, penstock, and associated materials would likely result in short-term ground-disturbing activities and erosion, which may cause an increase in turbidity, and short-term disturbances to some wildlife species and their associated habitats. The licensee will, in cooperation with appropriate natural resource agencies, revegetate disturbed or affected areas after de-construction and will re-seed areas with certified noxious weed-free seed mixes. In summary, removal of the Cove development will result in environmental benefits for Aquatic resources in the project area, and reducing minimum flows in the Grace Bypassed Reach will provide net customer benefits and will not result in significant adverse environmental impacts. In addition, the landscape will be improved aesthetically and flows will continue naturally down Bear River.

### SUMMARY

Based on our review of the filing and findings in our EA, we conclude that approving the amendment application to remove the Cove development is not a major federal action significantly affecting the quality of the human environment. This order approves the amendment of license as conditioned in the ordering paragraphs below.

#### The Director orders:

(A) PacifiCorp's application for amendment of license to remove the Cove development and reduce minimum flow requirements in the Grace bypassed reach for the Bear River Hydroelectric Project No. 20, filed on August 16, 2005, is approved.

(B) The licensee shall implement the Project Removal Plan attached as Appendix B to the licensee's August 16, 2005 filing.

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(C) Since the decommissioning proposal does not specifically address what is to be done with the project's 550-foot-long, 12.5-foot-diameter, buried steel penstock, the licensee shall seal the upstream end of the penstock for safety measures.

(D) This order is subject to the conditions of the Water Quality Certificate that was issued on April 7, 2006, by the Idaho Department of Environmental Quality for the decommissioning of the Cove development, attached to and made part of this order.

(E) The licensee shall implement the *Memorandum of Agreement between the licensee and the Idaho State Historic Preservation Office, on the Decommissioning of the Cove Hydroelectric Project*, dated April 24, 2006.

(F) The licensee shall also provide for cultural resources sensitivity training for all decommissioning personnel and place protective barriers around known archaeological sites in the Cove development area.

(G) At least 60 days before starting removal of the project features, the licensee shall submit one copy of the following documents to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Office and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI): (1) final contract plans and specifications; (2) Quality Control and Inspection Program; (3) Temporary Construction Emergency Action Plan; (4) a blasting plan, if necessary; (5) a public safety plan for the period during removal activities; and (6) a detailed erosion and sediment control plan. The licensee may not begin removal activities until the D2SI-Portland Regional Office has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of removal activities.

(H) Before starting construction of any cofferdam, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations, and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Portland Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections), of the approved cofferdam construction drawings and specifications and the letters of approval.

(I) During decommissioning activities, the licensee shall submit one copy to the Portland Regional Office of monthly progress reports.



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(J) Within 30 days of completing decommissioning activities and site restoration, the licensee shall submit one copy to the Portland Regional Office and two copies to the Commission of a final report which demonstrates that the project facilities have been removed and the project site restored in accordance with the approved plans. Deletion of the decommissioned Cove Development from the license does not become effective until the Division of Dam Safety and Inspections' Portland Regional Office (D2SI-PRO) performs a final site inspection, and the Regional Engineer issues a letter confirming the development removal has been completed in accordance with the license amendment order, satisfying all license articles including the requirements of this ordering paragraph.

(K) Within 90 days from satisfying the requirements of ordering paragraph (J), the licensee shall file revised Exhibits A, and Exhibits F and G drawings that are affected by this order, to reflect the project as-built after decommissioning of the Cove development. The licensee must prepare all exhibit drawings in accordance with sections 4.39 and 4.41 of the Commission's regulations.

(L) Article 408 of the license is amended to read:

Article 408. The licensee shall maintain continuous minimum bypass flows from the project development as follows:

(a) below the Soda dam: a year-round minimum flow of 150 cfs, or inflow into the Soda reservoir, whichever is less;

(b) Grace bypassed reach: a year-round minimum bypass flow of 63 cfs or inflow, whichever is less, in addition to 2 cfs leakage below Grace dam;

(c) Oneida reach below the powerhouse: a year-round minimum flow of 250 cfs or inflow, whichever is less, in addition to 1 cfs leakage below Oneida dam.

The licensee shall maintain reservoir levels in accordance with historic practices, water rights and flood control responsibilities that are memorialized in water contracts and agreements, an interstate compact and its subsequent amendments, and judicial decrees and opinions.

The licensee may suspend the flows described in this article on a temporary basis to facilitate regular maintenance or emergency repairs, or for equipment failures or unforeseen hydrologic events beyond the licensee's control. The licensee shall consult with the ECC regarding when to schedule and how to conduct regular maintenance, and shall consult with the ECC, to the extent practicable, in emergency situations. The

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licensee shall implement regular maintenance routines including drawdown and project shutdown activities so that aquatic resources, including fish spawning and rearing, are protected to the maximum extent practicable. The licensee shall minimize the number of such project maintenance shutdowns, drawdowns, and spillway tests and shall attempt to schedule such activities at times that shall not interfere with trout spawning or harm incubating trout eggs. If project operations or the minimum flows are modified in accordance with this article, the licensee shall notify the Commission as soon as possible, but not later than 10 days after each such incident, and shall provide the reason for the modified operation.

Nothing in this article shall require the licensee to violate its obligations under, or permit or require any action inconsistent with, the water contracts and agreements, interstate compact, judicial decrees, state water rights, and flood control responsibilities described in Section 5.10 and Appendix C of the August 28, 2002, Settlement Agreement, or in Section 9 of the July 28, 2005, Cove Development Decommissioning Settlement Agreement.

(M) Article 201 of the license is revised to read as follows:

Article 201. The licensee shall pay the United States the following annual charges, effective from the issuance date of this order for purposes of:

- (a) Reimbursing the United States for the cost of administration of Part I of the Federal Power Act, a reasonable amount as determined in accordance with the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 77 megawatts.
- (b) Recompensing the United States for the use, occupancy and enjoyment of 503.59 acres of its lands, other than for the use of transmission lines.

(N) 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.

Mohamad Fayyad  
Engineering Team Lead  
Division of Hydropower Administration  
and Compliance

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STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

444 Hospital Way, #300 • Pocatello, Idaho 83201 • (208) 236-6160

Dirk Kempthorne, Governor  
Toni Hardesty, Director

April 7, 2006

Mr. Robert Atwood  
PacifiCorp  
825 NW Multnomah Ave, Suite 1500 LCT  
Portland OR 97232

RE: 401 Water Quality Certification for PacifiCorp USCOE permit NWW No.  
053200030, Cove Hydropower Facility decommissioning and removal, Bear River,  
Caribou County, Idaho

Dear Mr. Atwood:

The Idaho Department of Environmental Quality (DEQ) has considered water quality certification for PacifiCorp's application for a U.S. Army Corps of Engineer permit No NWW 053200030, to decommission and remove from Bear River the Cove Hydropower Facility. PacifiCorp intends to decommission and remove the Cove Dam and restore approximately 1750 feet of river channel.

Under Section 401 of the Federal Clean Water Act (CWA), federal agencies issuing discharge permits must be provided a notice of certification from the state that requirements established by those permits will meet state water quality standards. By copy of this letter, the United States Army Corps of Engineers is being notified of our certification decision.

Idaho's Water Quality Standards and Wastewater Treatment Requirements (WQS, IDAPA §58.01.02) have three basic components: beneficial use classifications for waters of the state; criteria to protect existing and designated beneficial uses; and an anti-degradation policy. PacifiCorp's Cove Dam and adjacent facilities are located directly on Bear River. These waters are protected for the following uses: coldwater biota, salmonid spawning, primary contact recreation, drinking water supply, agricultural and industrial water supply, wildlife habitat and aesthetics (IDAPA §58.01.02.100.03.b.c, 04, 05 and 160.03.). The Bear River is listed as an impaired waterbody in the State of Idaho's 2002 Integrated 303(d)/305(b) Report, based on this the Department must limit discharges of pollutants the Bear River.

Idaho's anti-degradation policy requires the maintenance of existing uses and the level of water quality necessary to protect those uses. DEQ's review has focused on direct, cumulative and potential future impacts of this activity on maintaining and/or restoring beneficial uses in this reach of Bear River.

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The following conditions are necessary to ensure compliance with Idaho Water Quality Standards:

1. PacifiCorp shall develop a water quality monitoring plan ("Cove Dam Removal WQMP") to monitor turbidity, dissolved oxygen, suspended sediment concentration, total phosphorus, nitrate, and ammonia that meets the requirements set forth below. PacifiCorp shall implement the Cove Dam Removal WQMP upon approval by the Idaho Department of Environmental Quality (IDEQ).
  - The purpose of the Cove Dam Removal WQMP is to characterize water quality conditions above and below the project and determine the project's contribution to any violation of water quality criteria set forth in Idaho's Water Quality Standards and Wastewater Treatment Requirements, IDAPA 58.01.02 (Water Quality Standards). The Cove Dam Removal WQMP will provide for continuous (5 minute intervals) monitoring of turbidity and dissolved oxygen in Bear River for duration of the project. Continuous turbidity monitoring shall occur upstream of the project below the Grace tailrace and downstream immediately below the Cove Hydroelectric Plant. Turbidity and dissolved oxygen data shall be monitored real time by a qualified on-site person whenever construction activities are taking place below the ordinary high water mark (in-channel activities). Throughout term of construction when in channel work is not taking place, continuous data shall be collected in order to monitor any contribution of sediment from the general construction area.
  - Concurrent with continuous monitoring at the two sites, PacifiCorp will collect two water samples each day when in-channel activities will occur. Samples shall be taken below the Grace tailrace and immediately below the Cove Hydroelectric Plant prior to commencing in-channel activities and below the Cove Hydroelectric Plant 15-30 minutes following in-channel activities anticipated to create the highest turbidity for that day. Water samples shall be analyzed for suspended sediment concentration, total phosphorus, nitrate + nitrite, and ammonia. Following day one of in-channel activities, water sample collection shall continue; however, daily water samples collected that day need not be analyzed if the greatest measured turbidity increase as shown by the continuous monitoring due to construction activities for that day is less than 10 NTU. Once water quality samples taken at the prescribed turbidity levels have been analyzed, the Pocatello Regional Office of the IDEQ may forgive analysis of future samples taken on subsequent days at similar turbidities.
  - Instrumentation utilized for continuous monitoring shall be accurate within  $\pm 5$  NTU for turbidity and  $\pm 0.2$  mg/L for dissolved oxygen concentration.
  - Water quality monitoring shall be conducted by an independent, qualified consultant.
  - Monitoring results shall be sent to the IDEQ within 24 hours of testing. If, however, turbidity or dissolved oxygen standards are violated as shown by the continuous monitoring, IDEQ shall be notified on a same day basis or as soon as possible.

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2. PacifiCorp must obtain IDEQ approval of the WQMP prior to commencing dam removal activities. At a minimum, the WQMP shall comply with the requirements set forth in this certification and shall identify the sites for the monitoring, how background levels shall be established and the manner in which PacifiCorp shall collect and report the data, including QA/QC requirements.

3. Idaho's Water Quality Standards and Wastewater Treatment Requirements, IDAPA 58.01.02 (Water Quality Standards) provide a turbidity standard for surface water which reads that activity-related turbidity shall not exceed background levels by more than 50 NTU instantaneously or more than 25 NTU for more than ten (10) consecutive days. Dissolved oxygen shall not be less than 6 mg/L. If turbidity or dissolved oxygen standards are exceeded at any time due to project activities as shown by PacifiCorp's continuous monitoring, decommissioning activities shall cease immediately and appropriate action shall be taken to correct the situation causing excessive turbidity or insufficient dissolved oxygen prior to recommencing work.

4. If IDEQ determines that monitoring results show elevated levels of phosphorous, nitrates, ammonia or suspended sediment, IDEQ may require PacifiCorp take appropriate actions to prevent or minimize future water quality impacts. Any constituent concentration increasing > 25% from above to below-project samples, will be considered "elevated". Ammonia criteria shall be as described in Idaho's Water Quality Standards and Wastewater Treatment Requirements, IDAPA 58.01.02.250.02.d.

5. To the maximum extent practicable, sediments will be removed from the Cove forebay prior to dam removal.

6. 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. Vegetable-based hydraulic fluid must be used on equipment operating in or directly adjacent to the channel.

7. This certification shall remain in effect for a period of two (2) years from the date of issuance. If decommissioning activities are not begun within this 2 year period, the certification shall be void, and a new certification shall be required. If significant changes occur in the decommissioning plan, IDEQ shall be notified and these permit conditions may be revised to address those changes.

8. Water quality certification provided herein may be revoked for failure of the permittee to comply with the conditions of the referenced permit and/or requirements contained herein. IDEQ shall provide notice of its intent to revoke, and provide an opportunity for a contested case, prior to revocation.

The Department of Environmental Quality certifies pursuant to the provisions of Section 401, that if PacifiCorp complies with the terms and conditions imposed in this certification and with ACOE permit NWW No. 053200030, this activity will comply with

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applicable requirements of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and will not violate Idaho's Water Quality Standards and Wastewater Treatment Requirements.

This section 401 certification and associated conditions may be appealed by submitting to IDEQ a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the Rules of Administrative Procedure Before the Board of Environmental Quality IDAPA 58.01.23, within 35 days of the date of this

Questions concerning the actions taken in this letter should be addressed to Lynn Van Every or Greg Mladenka, Pocatello Regional DEQ at (208) 236-6160.

Sincerely,



Lynn R. Van Every  
Regional Water Quality Manager

Cc: Robert Brochu – Army Corps of Engineers, Idaho Falls.

## **ENVIRONMENTAL ASSESSMENT**

**Bear River Project, FERC No. 20-065**

**Decommissioning of the Cove Development and a Reduction in  
Minimum Flow in the Bypassed Reach of the Grace Development**



**Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Administration and Compliance  
888 First Street, N.E.  
Washington, D.C. 20426**

**May 2006**

## ENVIRONMENTAL ASSESSMENT

### FEDERAL ENERGY REGULATORY COMMISSION OFFICE OF ENERGY PROJECTS DIVISION OF HYDROPOWER ADMINISTRATION AND COMPLIANCE

#### 1.0 APPLICATION AND BACKGROUND

##### 1.1 Application

On August 16, 2005, PacifiCorp (licensee) filed an application to amend the license for the Bear River Project. In its application, the licensee requests to decommission the facilities associated with the Cove Development. To partially offset the associated loss of revenue, the licensee also requests to reduce the minimum flow in the bypassed reach of the Grace development from the required 80 cubic feet per second (cfs), plus leakage from the dam of 2 cfs, to 63 cfs, plus leakage.<sup>1</sup> Included with the August 16, 2004 application, was a “Settlement Agreement Concerning the Decommissioning of the Cove Development” (Cove SA), signed by many of the parties to the relicensing process.

The Bear River Project is located on the Bear River in Caribou and Franklin Counties, Idaho, and consists of the Soda, Grace, Cove, and Oneida developments and has an installed capacity of 84.5 MW, of which the Cove development has an installed capacity of 7.5 MW (Figure 1). The Commission recently issued a new license for the project on December 22, 2003.<sup>2</sup>

The Cove development is located on the Bear River south of Grace, Idaho. Facilities at the development include: (1) a 26.5 foot-high and 141-foot-long concrete dam containing a 10-acre (60 acre-foot) forebay; (2) an 88-foot-wide intake structure containing five 12-foot-wide openings, fitted with vertical bar screens, a transition section to rectangular flume, and a tainter gate just upstream of the flume, measuring 20 feet by 14.5 feet; (3) a 6,125-foot-long flume consisting of a 425-foot-long concrete section and a 5,700-foot-long wooden section; (4) a 550-foot-long steel penstock; and (5) a powerhouse containing a single Francis turbine; (6) an unlined open-channel tailrace; (7) a substation containing step-up transformers, located adjacent to the powerhouse; and (8) a 46-kV transmission line to the Grace substation and to the Cove West substation.

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<sup>1</sup> Article 408 was amended to quantify the 2 cfs leakage from Grace Dam, as well as the 1 cfs leakage from Oneida Dam, on December 2, 2005 (see 113 FERC ¶ 62,167).

<sup>2</sup> 105 FERC ¶ 62,207 (2003). See also Order on Rehearing, issued March 26, 2004 (106 FERC ¶ 61,307).



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Figure 1

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Both the Grace and Cove bypassed reaches pass through sections of U.S. Bureau of Land Management administered land. However, no Federal land falls within the zone potentially disturbed by removal of the facilities.

This Environmental Assessment (EA) considers the environmental effects of the licensee's proposed actions.

## **1.2 Background**

In May and September 2000, failures of the Cove flume occurred destroying vegetation, causing erosion and scouring, and ultimately resulted in sediment releases into the Bear River.<sup>3</sup> Several articles of the new license (articles 302 through 306) required the filing of plans and specifications and other necessary documents prior to the flume's rehabilitation. Concurrently, the Bear River Settlement Agreement on Relicensing, dated August 28, 2002 (Relicensing SA), and the new license for the project stipulated various types of fish protection and enhancement measures for the Bonneville cutthroat trout (BCT), an Idaho species of concern. Specifically, article 403 of the license required the licensee to develop a comprehensive Bonneville Cutthroat Trout (BCT) restoration plan,<sup>4</sup> in consultation with the Environmental Coordination Committee (ECC).<sup>5</sup> As a provision of this plan, article 403 required the licensee to study the feasibility of improving passage at the Cove development, to include an assessment on decommissioning the development. The licensee addressed this provision of the plan in reports filed with the Commission on September 1, and December 10, 2004. This work ultimately led to the licensee's August 16, 2005 amendment application and Cove SA. Provisions of the Cove SA are discussed in detail in Sections 3.1 and 4.1 below.

## **2.0 PURPOSE AND NEED FOR POWER**

### **2.1 Purpose**

The Commission must decide whether, and under what conditions, to grant the licensee's proposal. This environmental assessment (EA) analyzes the environmental effects of four alternatives: (1) approval of the licensee's proposal, leading to the decommissioning of the Cove development and a flow reduction in the Grace bypassed

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<sup>3</sup> For a detailed history, see 105 FERC ¶ 62,207 (2003).

<sup>4</sup> This plan, with the exception of the Cove decommissioning study provision, was approved by the Commission on December 2, 2004 (see 109 FERC ¶ 62,151).

<sup>5</sup> Established pursuant to Article 402 and Section 4.1 of the Relicensing SA.

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reach (Proposed Action); (2) the construction of a Grace-Cove Interconnect Canal; (3) the installation of fish passage facilities at the Grace and Cove developments; and (4) no action (No Action alternative).

## **2.2 Need for Power**

Although the proposed decommissioning of the Cove development would result in a net loss of power generation, the licensee states the need for power was considered in its development. The project as a whole has historically produced 366,528 Megawatt-hours per year (MWh/year; based on a 30-year net generation average). The Grace development has produced 148,353 MWh/year, and the Cove development 29,513 MWh/year. Approval of the proposed reduction in flow from the Grace bypassed reach (amounting to an additional 17 cfs through the Grace powerhouse) would generate an additional 4,721 MWh/year at the Grace development.

The licensee conducted an analysis comparing Cove decommissioning with flume rehabilitation and resumed operation. To determine the value of the additional 17 cfs to be received at the Grace development under the decommissioning proposal, the licensee compared the benefit of decommissioning and the additional flows to the Grace development over 30 years, assuming decommissioning would cost \$3.2 million. Based on that analysis, the licensee determined there would be a net customer benefit and that the return on generation potential would be equivalent, on a total project basis, to compensation for the estimated decommissioning costs.

## **3.0 PROPOSED ACTION AND ALTERNATIVES**

### **3.1 Proposed Action**

With its application, the licensee included a detailed Project Removal Plan. In general, the licensee proposes to remove all of the Cove development facilities except for the powerhouse building, substation and transmission lines. Features to be removed include the Cove dam, intake structures, and flume. The area to be disturbed covers approximately 66 acres, primarily in the areas of the forebay, flume, and powerhouse (Figure 2).

First, the forebay would be dewatered in stages to minimize sedimentation. All flow during this time would be spilled into the river channel below the dam rather than via the flume. Secondly, the Cove dam would be demolished. To do this, a cofferdam would be installed below the dam to divert spill away from the work area (Figure 3). The dam's concrete wall would be softened using explosives. Concrete would then be

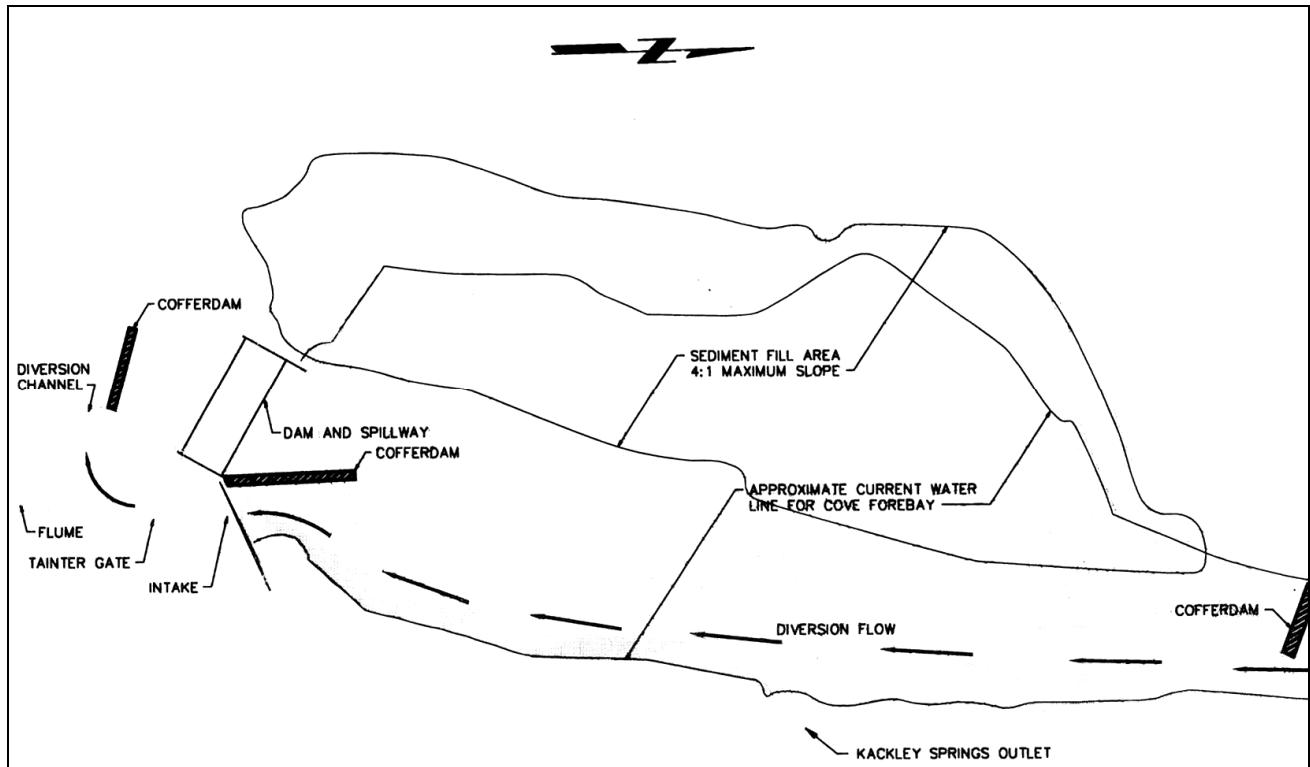
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removed and broken up using excavators, bulldozers and the like. Material would be removed or buried on site, and the area graded.



**Figure 2.** Area of disturbance at the Cove development under the licensee's proposal (Source: PacifiCorp, 2005, as modified by staff).

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**Figure 3.** Main elements of Removal Plan (Source: PacifiCorp, 2005, as modified by staff).

Additional cofferdams would be installed in the forebay to direct flow first into the eastern channel of the forebay, i.e. through the intake structure and into the river channel below the dam (Figure 3). Sediments from the exposed western portion of the forebay would then be excavated in the dry and either deposited and graded on the adjacent bank, or used to cover the demolished flume. Standard erosion control measures would be used. Then the cofferdam at the upper end of the forebay would be relocated to the eastern bank, allowing flows to shift to the new western channel. The process would then be repeated on the eastern bank of the forebay.

The third phase of decommissioning would involve the removal of the intake structure, flume, and pressure box. Heavy equipment would be used. All concrete and rubble would be buried on site in designated locations where it would facilitate grading. The flume's remaining concrete, wood, and liner material would be buried in place. All protruding metal would be removed. Wetlands and drainages around the flume would be protected from damage and kept free from demolition and fill. Fourth, the Cove powerhouse would be decommissioned. Windows would be covered with  $\frac{3}{4}$  inch plywood and all petroleum products and batteries removed from the building. Lastly, all disturbed areas would be revegetated with an ECC approved seed mix and willow slips. Work would begin in July 2006 and continue through November 2006. Demolition work

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in the Cove forebay area would occur when river flows are typically low, i.e., October-November 2006.

As a result of the Cove decommissioning, natural flow would be restored in the Cove bypassed reach (about 1.4 miles of the Bear River channel below the dam). To offset the associated loss of revenue, the licensee proposes to reduce flow releases from Grace Dam to the Grace bypassed (Black Canyon) reach of the Bear River, from the required 80 cfs to 63 cfs or inflow, whichever is less, in addition to 2-cfs leakage below Grace Dam.

To minimize the potential for adverse impacts during removal of the facilities, the licensee plans to implement the following measures: standard erosion control practices during construction; staged releases during dewatering of the forebay to minimize the potential for sediment releases; monitoring of water quality; obtaining appropriate federal, state, and local permits; revegetation and grading of the site; and filing revised exhibit drawings with the Commission.

In addition, the licensee proposes to identify and protect wetlands in the area during construction, as well as mark any identified historic and/or cultural properties in the area. These measures are discussed more fully in Section 6 below. The licensee proposes the addition of three articles to the license in relation to the Cove decommissioning, including adoption of the project removal fund, establishment of a decommissioning fund, and amending article 408. These are summarized as follows:

Article 1. The licensee shall implement the Project Removal Plan.

Article 2. Within 120 days from completion of the decommissioning, a report would be filed with the Commission detailing the decommissioning costs. If those costs are less than \$2.5 million net present value (NPV; in 2005 dollars), the licensee shall provide additional mitigation funds in an amount equal to the difference between \$2.5 million NPV and the decommissioning costs. Within 90 days from the Commission's acceptance of the report, the licensee shall provide those funds for use by the ECC. Funds not expended in a given calendar year may be carried over for use in the succeeding year. Carried over funds shall bear interest but shall not further escalate. Upon expenditure, one half of the accrued interest shall belong to the licensee, and one half of the interest shall be available for mitigation under this article. Any funds not expended by the end of the license term shall not be available for any other purposes.

Article 408 (in pertinent part). The licensee shall maintain continuous minimum bypass flows from the project development as follows:

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(b) Grace bypassed reach: a year round minimum bypass flow of 63 cfs or inflow, whichever is less, in addition to current leakage from Grace dam, provided however that during the period of Cove dam deconstruction, this continuous minimum flow requirement may be suspended or reduced as set forth in the Project Removal Plan.<sup>6</sup>

In addition, reference to a minimum flow release in the Cove bypassed reach would be removed from article 408.

### **3.2 Action Alternatives**

Several alternatives were considered during the development of the proposed action: (1) the Grace-Cove Interconnect Canal; (2) fish passage alternatives at the Grace and Cove developments; (3) uncontrolled demolition of the Cove dam and its facilities; and (4) Federal take-over of the development. The latter two alternatives were eliminated from consideration due to sediment concerns and the unlikelihood of Congressional involvement, respectively. The first two alternatives are described more fully below.

#### **3.2.1. Grace-Cove Interconnect Canal**

Under this alternative, the licensee would remove Cove dam, construct a canal connecting the Grace tailrace and Cove intake, and rehabilitate the Cove flume for continued power generation. Thus, water would be channeled directly from the Grace tailrace to the Cove intake. Since the hydraulic capacity of the Grace powerhouse is 267 cubic feet per second (cfs) less than that of the Cove powerhouse, a weir across the Bear River would be constructed approximately 200-300 feet upstream of the Grace tailrace in order to allow maximum generation at the Cove powerhouse. Fish passage would be provided for access above the weir, as well as screens on the intake to avoid impingement of fish. A spillway would be constructed to divert water from the Grace tailrace to the Bear River in the event of a Cove powerhouse outage. Comparable equipment and methods to that used for the proposed action would be necessary for implementation of this alternative.

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<sup>6</sup> This minimum flow release would take effect immediately upon issuance of a Commission order approving the license amendment and continue through the license term.

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### **3.2.2. Fish Passage Alternative**

This alternative would improve fish passage and/or protection measures at the existing facilities at the Cove and Grace developments. It includes the addition of a vertical-slot fish ladder at the Cove dam, intake fish screens at the Cove development, and tailrace barriers at both the Cove and Grace developments. The Cove flume would be rehabilitated, and generation at the Cove development would be retained. Again, comparable equipment and methods to that used for the proposed action would be used under this alternative. None of the Cove project features would be removed.

### **3.3 No-Action Alternative**

Under the No-Action Alternative, the Commission would deny the licensee's application. Denial of the application would maintain the Cove development as part of the Bear River Project. Flows in the Grace bypassed reach would remain at 80 cfs or inflow, whichever is less, in addition to 2-cfs leakage, as required by article 408 of the license. Rehabilitation of the flume would be necessary as well as compliance with articles 302-306 of the license.

## **4.0 CONSULTATION AND COMPLIANCE**

### **4.1 Settlement Agreement Concerning the Decommissioning of the Cove Development**

The licensee included with its August 16, 2005 application the Cove SA. Signatories to the Cove SA, with an effective date of July 20, 2005, include: the licensee; U.S. Fish and Wildlife Service (FWS); U.S. Bureau of Land Management (BLM); U.S. National Park Service (NPS); U.S. Forest Service (FS); Shoshone-Bannock Tribes (Tribes); Idaho Department of Environmental Quality (IDEQ); Idaho Department of Fish and Game (IDFG); Idaho Department of Parks and Recreation (IDPR); Idaho Council of Trout Unlimited (ITU); Idaho Rivers United (IRU); Greater Yellowstone Coalition (GYC); American Whitewater (AW); and other interveners who executed the Relicensing SA. The parties to the Cove SA support the licensee's proposal to decommission the Cove Development and reduce the minimum flow required in the Grace bypassed reach. These parties also support the establishment of a decommissioning fund.

### **4.2 Comments and Interventions**

The Commission public noticed the licensee's application on October 11, 2005, with a comment period ending November 14, 2005. The following parties filed comments in response to the notice:



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<u>Entity</u>	<u>Date Filed</u>	<u>Motion to Intervene</u>
State of Idaho <sup>7</sup>	November 10, 2005	Yes
Licensee	November 10, 2005	
Franklin County Fish and Game Association	November 11, 2005	
U.S. Department of Interior	November 14, 2005	
Mr. Stan Christensen <sup>8</sup>	November 15, 2005	
City of Soda Springs	November 16, 2005	
Senator Robert L. Geddes, Idaho State Senate	November 22, 2005	

In general, the State of Idaho, the licensee, and the Franklin County Fish and Game Association expressed support for decommissioning the Cove development. Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney did not. Only the State of Idaho requested a timely Motion to Intervene. In its letter filed November 14, 2005, the Department of Interior indicated it had no comments to offer.

In comments, Mr. Christensen maintained that: (1) it is not in the public interest to eliminate the taxes paid by this facility; (2) the lack of maintenance is the primary reason for the decommissioning proposal; (3) hydropower is a clean, renewable energy resource; and (4) the license requires that the flume be rebuilt to provide continued operation of the Cove development for the remainder of the license term. Mr. Keller, in his comments, stated that he was a former employee of the licensee and that deterioration of the Cove development has been a personal concern in the past, yet no resources were provided to rebuild the flume. Mr. Keller also noted that power generation at the Cove development is an important renewable resource.

The City of Soda Springs stated that the licensee and Commission would be remiss in decommissioning a valuable, clean and environmentally friendly renewable resource at a facility that has operated efficiently and economically since 1917. The

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<sup>7</sup> Includes Idaho Department of Fish and Game, Idaho Water Resource Board, Idaho Department of Environmental Quality, Idaho Department of Park and Recreation, and the Idaho State Board of Land Commissioners.

<sup>8</sup> Includes comments from himself, Mr. Bud Keller, City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney. Mr. Christensen also filed on November 21, 2005, a copy of his earlier comments.

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development provides a critical source of revenue for Caribou County. In support of its position, the City of Soda Springs pointed to the December 2003 license for the project, which requires the continued operation of the development.

Mr. S. Criss James (on behalf of the Caribou County Commissioners), in a letter to his U.S. Senators and Representatives, stated his desire to maintain the Cove development. Mr. James stated that the facility has been in use for many years and has provided a clean source of electricity during that time. Further, the development provides a source of revenue for Caribou County from the taxes paid by the licensee. Mr. James recommended that all options be explored to maintain the facility as part of the project because of its value to the community.

In his November 11 comments, State Senator Robert Geddes stated that the licensee is currently in negotiation to transfer its assets. Therefore, all facilities used to generate electricity should remain a part of the project. In that way, any future owner would be able to make its own decision on how best to provide the service and allocate appropriate resources with the existing rate conditions and capacities as approved by the Idaho Public Utilities Commission. Senator Geddes stated that decisions of this nature should not be made by entities desiring to leave the business, but rather all assets should be maintained in order to allow a new owner to review all company assets. A facility that has been approved for decommissioning will become a financial liability for a new operator and its existing customers. The Cove development has operated since 1917 and is part of the economic infrastructure for power generation in southeast Idaho. Lastly, Senator Geddes noted that the Commission's decision to relicense the project included the Grace-Cove development and that many benefits are realized with its continued operation.

### **4.3 Statutory Requirements**

#### **4.3.1 Water Quality Certification**

Section 401(a) (1) of the Clean Water Act (CWA) and Commission regulations require that an applicant for a federal license or permit to conduct an activity that may result in a discharge into waters of the United States must provide the licensing or permitting agency with water quality certification (WQC) that the discharge would not violate water quality standards from the applicable state. The federal agency may not authorize the activity unless certification has been obtained or the state has waived certification through failure to act on the request for certification within 1 year after receipt of that request.

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According to Section 8 of the Cove SA, the parties agree that a WQC would be required for decommissioning of the Cove development, but that as of the effective date of the Cove SA (July 20, 2005), a WQC had not been issued. By letter dated January 13, 2006, we informed the licensee that water quality certification was necessary and asked for documentation of a water quality certification or a waiver from the IDEQ. The IDEQ issued a certification on April 7, 2006, for the project. These conditions are summarized below and discussed in Section 6.2 of this EA:

(1) The licensee shall develop a water quality monitoring plan to monitor turbidity, dissolved oxygen (DO), suspended sediment concentration, total phosphorus, nitrate, and ammonia that meets the following requirements. The licensee would implement the water quality monitoring plan upon approval by the IDEQ.

- Monitor continuously (5 minute intervals) for turbidity and DO above and below the project for the duration of the project, as well as real-time monitoring by a qualified on-site person whenever construction activities are taking place below the ordinary high water mark (in-channel activities).
- Concurrent with the continuous monitoring above, collect water samples each day when in-channel activities occur.
- Instruments used for monitoring shall be accurate within  $\pm 5$  nephelometric turbidity units (NTU) for turbidity and  $\pm 0.2$  milligrams per liter (mg/l) for DO.
- Monitoring shall be conducted by an independent, qualified consultant.
- Results shall be submitted to IDEQ within 24 hours of data collection. If, however, turbidity or DO are violated, IDEQ shall be notified on a same day basis or as soon as possible.

(2) The licensee shall obtain IDEQ approval of the water quality monitoring plan prior to commencing dam removal activities. The plan shall identify the site for monitoring, how background levels shall be established and the manner for reporting the data, as well as comply with the provisions of the WQC.

(3) The licensee shall maintain Idaho state standards of no more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days. The DO shall not be less than 6 mg/l. If deviations occur, corrective action must be taken prior to recommencing work.

(4) If IDEQ determines that monitoring results show elevated levels of phosphorus, nitrates, ammonia, or suspended sediment, IDEQ may require the licensee take appropriate action to prevent or minimize future water quality impacts.

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- (5) To the maximum extent practicable, sediments will be removed from the anticipated new river channel within Cove forebay prior to dam removal.
- (6) Petroleum products, hazardous, toxic and/or deleterious materials shall not be stored, disposed or accumulated adjacent to or in the vicinity of state waters unless adequate measures and controls are provided to ensure those materials will not enter state waters. Vegetable-based hydraulic fluid must be used on equipment operating in or directly adjacent to the channel.
- (7) This certification shall remain in effect for two years form the date of issuance.
- (8) Water quality certification may be revoked for failure of the licensee to comply with the conditions of the permit and/or requirements contained herein.

The licensee clarifies that nothing in the Cove SA invalidates or modifies the previous WQC of the Bear River Projects, issued by the IDEQ on June 23, 2003, except where changes are necessary to identify any newly required minimum flows.

#### **4.3.2 Endangered Species Act**

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of such species.

By letter to the licensee, dated December 1, 2005, the Commission notified the FWS that the licensee was designated the Commission's non-federal representative for consultation in this matter. Subsequently, the licensee requested initiation of consultation with the FWS by letter dated December 28, 2005. The licensee concluded that the proposed action, may affect, but is not likely to adversely affect, listed species that may occur in the project area. By letter dated January 6, 2006, the FWS concurred with that determination. This is discussed more fully in Section 6.7 below.

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### **4.3.3. National Historic Preservation Act**

Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency take into account the effect of the proposed undertaking on any historic property. Historic properties include districts, sites, buildings, structures, traditional cultural properties and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register.

The NHPA also provides for the appointment of State Historic Preservation Officers (SHPOs) to facilitate the implementation of federal cultural resource policy at the state level, and requires the federal agency to consult with Native American tribes who attach religious or cultural importance to cultural resources under their jurisdiction.

Compliance with Section 106 is discussed in Section 6.9 of this EA.

## **5.0 AFFECTED ENVIRONMENT<sup>9</sup>**

### **5.1 General Area Description**

The Bear River basin encompasses 7,600 square miles of Utah, Idaho, and Wyoming. The area is mainly rural, with areas of forests, mountains, valleys and open pasture. Homes, farms, and small towns are widely dispersed throughout the area. Agriculture accounts for most water use, with surface and ground water used to irrigate over 60,000 acres of cropland.

### **5.2 Water Quality and Quantity**

Flows in the Bear River are heavily managed for irrigation and power generation. Flows entering the Grace and Cove forebays are dependent upon upstream releases from Alexander Reservoir (the reservoir for the Soda development of the Bear River Project) and in certain months, irrigation demand. Annual average inflow to the Cove forebay is approximately 658-691 cfs (1981-2004), but can vary widely due to precipitation, irrigation demand, and drought conditions. In October and November, monthly average inflow ranges from about 550-620 cfs.

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<sup>9</sup> Unless otherwise noted, this information was based on the licensee's amendment application, filed with the Commission on August 16, 2005.

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Water quality in the Cove forebay is considered similar to that in the Grace forebay. Grace forebay is characterized as meso-eutrophic, with slight water temperature and dissolved oxygen (DO) stratification occurring in the summer months (FERC 2003). The bypassed reaches of the Grace and Cove developments are fed by cool springs with water temperatures ranging from 9-12°C (FERC 2003).

With respect to flows in the Grace bypassed reach, article 408 of the license requires the release of a year-round minimum flow of 80 cfs or inflow, whichever is less, in addition to current leakage from Grace Dam.<sup>10</sup> Prior to license issuance, flow in the bypassed reach was limited to about 1-18 cfs in leakage and 40-70 cfs from springs below Grace Dam. In the Cove bypassed reach, article 408 requires the release of a minimum flow of 10 cfs or inflow, whichever is less, from October 1 through March 31, and 35 cfs or inflow, whichever is less, from April 1 through September 30, in addition to leakage from Cove dam.

### 5.3 Sediment

Sediment sampling completed in March 2005 at 10 sites in the Cove forebay indicated mostly shallow sediment accumulations ranging from 0.33-5.0 feet. In general, the sediment is loose, fine to medium sand. At six of the measurement sites, sediment depths were less than one foot, while sediment at three other sites measured between one and two feet deep. Sediment at one location near the east shoreline measured approximately five feet deep. Chemical testing of the samples indicated high levels of total phosphorus, ranging from 8,000 to 14,000 mg/kg (compared to a normal range of 200-5,000 mg/kg). Most total phosphorus, however, is chemically or physically bound, and not soluble or biologically active.

Cove forebay sediment was also analyzed for metals, pesticides, and polychlorinated biphenyls (PCBs). Among four samples collected, mean concentrations for mercury and selenium were 0.12 mg/kg and 2.4 mg/kg, respectively. Although three samples exceeded the Idaho Initial Default Target Levels (IIDTLs) of the Idaho Risk Evaluation Manual (IDEQ 2004) for selenium, values were comparable to other background data collected in the region. With respect to mercury, two of the four samples exceeded the IIDTL standard. However, the mean value of 0.12 mg/kg was less than the National Oceanic and Atmospheric Administration's Screening Quick Reference Tables effects range-low (Buchman 1999). Previous monitoring of surface and groundwater resources in the project area did not identify concentrations of mercury or

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<sup>10</sup> This leakage from Grace dam was determined to be approximately 2 cfs. See the Commission's order, issued on December 2, 2005 (113 FERC ¶ 62,167).

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selenium in excess of IDEQ standards. No aquatic advisories regulating fish consumption due to high selenium or mercury levels are currently recommended for the Bear River downstream of Cove forebay. No other metals, pesticides, or PCBs were found in the sediments.<sup>11</sup>

#### 5.4 Fish and Aquatic Resources

Fish occupying the waters of the Cove development include non-native brown trout, rainbow trout, common carp, smallmouth bass, yellow perch, walleye, and mountain sucker. Native fishes that may occur in the project area include the Bonneville cutthroat trout (BCT), mountain white fish, Utah sucker, redband shiner, mottled sculpin, and Paiute sculpin. The Cove forebay, approximately 10 acres at full pool, supports a fishery that is composed primarily of carp and Utah sucker (FERC 2003).

The Grace bypassed reach (Black Canyon) is a segment of the Bear River that extends 6.0 miles from Grace dam to the Grace powerhouse (FERC 2003). The game fish community of the Grace bypass consists mainly of adult and juvenile rainbow trout that are either stocked by IDFG or released by the Black Canyon Trout Farm (FERC 2003). Most of these fish are located in the lower half of the reach, in the vicinity of springs that feed the reach (FERC 2003).

The BCT, although not listed under ESA, is considered a species of special concern by the State of Idaho. The distribution of BCT in the state of Idaho is limited to the Bear River drainage, and occurs mainly in tributaries of the Bear River upstream of Soda dam and in Bear Lake. Studies conducted by the licensee have not identified BCT in the Cove Development area. However, seasonal occurrence may occur in the Grace and Cove bypassed reaches.

Establishment of the 80 cfs minimum flow in the Grace bypassed reach was based on two instream flow studies that evaluated the relationship between flow and fish habitat in the Grace bypassed reach (FERC 2003). The habitat, as represented by weighted useable area (WUA), that is available to each life stage and species of trout in the Grace bypassed reach is shown in Table 1. Flows shown in the left column of each table represent flows entering the upper end of each reach, which consist of leakage and spill flows. Habitat values shown for each release flow represent the total habitat per 1,000 feet of stream, and account for accretion of groundwater from springs within each reach (FERC 2003).

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<sup>11</sup> Personal communication between Diana Shannon, Commission staff, and Monte Garrett, representing the licensee, on December 29, 2005.

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**Table 1.** Total WUA (square feet/1,000 feet of stream) versus flow in the Grace bypassed reach for rainbow/cutthroat trout, brown trout, and trout fry (Source: FEIS, dated April 2003).

Flow (cfs)	Rainbow/Cutthroat trout			Brown trout			Trout fry	
	Juvenile	Adult	Spawning	Juvenile	Adult	Spawning	Summer	Winter
55	29,874	67,852	421	45,042	30,374	2,358	14,305	7,307
60	26,874	67,751	921	43,772	29,636	2,358	13,764	7,470
65	25,607	66,397	948	42,736	26,874	2,358	13,439	7,145
75 <sup>1</sup>	25,146	63,922	1,298	40,337	25,646	2,404	13,740	8,420

<sup>1</sup>The licensee did not model habitat for flows over 75 cfs, but it is likely that habitat conditions with an 80 cfs minimum flow release would be similar to those that were predicted by the model for a 75 cfs flow release.

## 5.5 Riparian and Wetland Resources

Along the Bear River, riparian vegetation is primarily limited to a narrow fringe (10-20 feet) along the river channel. If groundwater seepage is occurring along the bank, the area of riparian vegetation is wider, up to 50 feet. In the bypassed reach below Cove dam, wider riparian wetlands areas associated with groundwater seeps occur along the east side of the river, while the west side of the river typically has a narrow fringe of wetlands. Wetlands found in the Cove development are primarily palustrine emergent, although palustrine scrub-shrub wetlands also occur.

Kackley Springs is a group of springs that discharge water on a flat bench at the base of a lava bluff east of the Cove forebay. An emergent wetland dominated by cattails, brookgrass, and sedges is maintained by water from these springs. Most of the water discharged from Kackley Springs flows into the forebay via a poorly defined channel.

Two cattail-dominated wetlands occur south of the Cove dam and west of the forebay. The wetland west of the forebay is located on a bench above the forebay elevation and appears to be supported by groundwater discharge. The east side of the community extends down to the forebay, creating a limnetic fringe wetland. The wetland south of the dam is also located on a bench and appears to be supported by groundwater discharge.

Additional emergent wetlands occur along the Cove flume. Some of the areas are supported by water leaking from the flume and are dominated by redtop. Other wetlands are fed by ground or surface water and are more developed with Nebraska sedge, brewer



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bittercress, fowl bluegrass, water speedwell, cattail, and spikerush being the dominate species.

## **5.6 Wildlife Resources**

The licensee conducted waterfowl surveys in 1997 to document the various species that inhabit the Grace and Cove developments. Fourteen species of birds were identified during these surveys and include Western kingbird, Canada geese, mallards, Black-billed magpie, black-capped chickadee, American robin, cedar waxwing, spotted towhee, Townsend's solitaire, killdeer, spotted sandpiper, and several species of swallows and warblers.

Two nesting pairs of Canada geese were recorded along the west shore of Cove forebay. An additional goose pair and nest were observed below the Cove powerhouse. All of these nest sites were found in predominantly grass/shrub thickets, above the high-water mark. In 2005, an active goose nest was found in sagebrush to the south of the Cove dam, a goose pair was observed on Cove forebay, and two other pairs were observed in pastures on the west side of the Cove bypassed reach. Mallards were also observed nesting throughout the area in 2005.

## **5.7 Threatened and Endangered Species**

According to the licensee's amendment application, the FWS has documented the presence of bald eagles (*Haliaeetus leucocephalus*), the possible occurrence of gray wolf (*Canis lupis*) and one listed plant species, Ute ladies' tresses (*Spiranthes diluvialis*) in Caribou County, Idaho. As discussed in the Commission's FEIS on relicensing the project (FERC 2003), other species that may be found in the project area may include the threatened Canada lynx, and the candidate yellow-billed cuckoo.

Bald eagles have been sighted near the Soda development, but the presence of the other listed (or candidate) species in the project area may be more transient in nature. There are no known observations of Ute ladies' tresses in the Bear River drainage (FERC 2003).

## **5.8 Recreation and Land Uses**

Whitewater boating occurs through the Black Canyon section of the Grace bypassed reach. Optimum flow level required for whitewater boating in this reach depends on skill level and experience, but averages around 1,000 cfs. Article 419 of the license requires the release of whitewater boating flows and provides a schedule for release of those flows. Boating in this reach is not possible at the required minimum flow

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(i.e., 80 cfs). No boating flows are required in the Cove bypassed reach. This stretch of river is primarily flat water and no recreational boating has been observed since the Cove development went off-line in 2002.

No developed recreation sites exist within the Grace-Cove Project boundary. Two semi-formal recreation sites provide boater and angler access to the Grace bypassed reach (FERC 2003). A put-in area immediately downstream of Grace dam provides boater access to the Black Canyon Run. A parking area, approximately 0.5 miles upstream of the Grace powerhouse provides access to the lower reach and serves as a take-out for the run.

Aside from boating, the Grace and Cove developments are used by anglers for fishing. Shoreline fishing occurs below the Black Canyon reach, below the Grace and Cove powerhouses and at the Cove forebay. The primary species targeted by anglers include trout, smallmouth bass, and walleye. Private land restricts public access.

Livestock grazing occurs on a large percentage of licensee land and adjacent private and BLM lands. The Cove flume currently restricts most livestock from grazing in the riparian areas along the Cove bypassed reach.

## **5.9 Cultural Resources**

Many of the structures associated with the Cove development are considered to collectively contribute to the eligibility of a Grace-Cove complex for listing on the National Register of Historic Places. These structures include the Cove dam, flume, powerhouse, and associated employees' facilities. These structures were constructed in 1917 and are located within an area of ancestral tribal land important to the Shoshone-Bannock Tribes, a party to the relicensing SA and to the Cove SA.

No paleontological or prehistoric sites are known to occur in the Cove development area, although several prehistoric sites are known to occur at other developments of the project (FERC 2003). Lands important to the Shoeshone-Bannock tribes are in the general project area although none have been identified in the Cove development.

## **6.0 ENVIRONMENTAL IMPACTS**

### **6.1 Proposed Action**

The licensee proposes to decommission the Cove development and reduce the minimum flow required in the Grace development bypassed reach. Significant

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construction and demolition of facilities will take place within the stream channel or adjacent to it. The following sections describe the potential for impacts on the various environmental resources associated with this proposal.

## **6.2 Water Quality and Quantity**

Temporary adverse impacts to water quality may result from construction activities related to removal of the dam, flume, and other facilities, and as a result of the operation of heavy equipment in and near the streambed. The licensee proposes to dewater the forebay in stages and use standard erosion control measures to prevent the release of sediment into the Bear River. The IDEQ included several conditions as part of the 401 WQC, dated April 7, 2006, to reduce or limit the effects of project construction on sedimentation and stream turbidity. Among them, the licensee will remove sediments from the forebay prior to dam removal.

In addition, the licensee will develop a comprehensive water quality monitoring plan in consultation with the IDEQ that would include continuous monitoring of turbidity and DO in the construction area. In the event of deviations from state standards, the licensee would consult with the IDEQ. Development of a water quality monitoring plan, as well as adoption of other measures of the water quality certificate would minimize the magnitude and extent of any potential adverse impacts to water quality downstream of the Cove development.

Under the licensee's proposal, natural flow would be restored in the Cove bypassed reach upon removal of the Cove dam and other facilities. Total flow in this reach would be a combination of flows from the Grace flowline, the Grace bypassed reach, Kackley Springs (5-8 cfs), and the three major springs in the Cove bypassed reach (4-24 cfs). Based on information contained in the licensee's application, flows would approximate 400-900 cfs, but could vary widely within and among years. After equilibrium is reached upon completion of construction, only beneficial impacts are expected from natural flow being restored in this reach.

A permanent reduction in the required flow, from 80 to 63 cfs, would occur in the Grace bypassed reach. Although greater than what was historically released in this reach, it is difficult to predict what, if any, impacts might occur from this flow reduction. The currently mandated 80 cfs or inflow, whichever is less, was instituted in 2003 when the new license was issued for the project. In the Commission's FEIS, staff speculated that this increase in flow would result in increased summer water temperatures in portions of the bypassed reaches where spring flow dominates, i.e., the lower half of the reach (FERC 2003). In the upper half of the reach, increased flow may result in lower water temperatures by reducing the effects of solar radiation. These two effects, increasing

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water temperature in the lower reach and reducing temperature in the upper reach, would likely be lessened by reducing the minimum flow to 63 cfs or inflow. Data included with the licensee's application indicates all monthly average flows from 1981-2004 exceed 63 cfs and generally exceed 80 cfs. Specific impacts to aquatic habitat resulting from this reduction are discussed more fully in Section 6.4 below.

### **6.3 Sediment**

With the ground disturbing activities associated with the licensee's proposal, an increase in downstream sediment loading is expected, affecting substrates and fish habitat primarily in the reach closest to the dam. The licensee estimates up to 3,600 cubic yards of sediment material may be transported downstream. The extent and duration of the increased sedimentation is unknown, however, and will likely occur during initial formation of the new river channel (i.e., during and immediately following dewatering of the forebay) and over a longer period from new channel banks and upslope areas.

Given that the total phosphorus is bound, and mercury and selenium levels are similar to background levels reported elsewhere, no adverse impacts from total phosphorus, selenium, or mercury adsorbed to sediment particles are expected.

To minimize the potential for any sediment releases, the licensee proposes staged releases during dewatering of the forebay and scheduling the drawdown during a low flow period (October-November). Removal of forebay sediments prior to dam removal, as required by the WQC should also minimize sediment transport. Standard erosion control measures would be used and all necessary permits would be obtained prior to construction. As discussed above, water quality would be monitored throughout the construction period as required by the WQC. In the event that water quality does not meet state standards, immediate consultation with IDEQ is planned. With these provisions, only temporary adverse impacts to water quality are expected. Any realized impacts would be minimized through timely consultation with IDEQ.

### **6.4 Fish and Aquatic Resources**

Under the licensee's proposal, natural flow would be restored to the Cove bypassed reach. Removal of the Cove facilities would also restore connectivity in the river and fish movement throughout the reach. Upon completion of construction and an established equilibrium of the aquatic system, only beneficial effects are expected in the Cove bypassed reach.

In the Grace bypassed reach, flows would be reduced from the required 80 cfs, or natural inflow, to 63 cfs, or natural inflow (plus leakage). Based on previous studies and

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the information contained in Table 2, this reduction in flow would increase the amount of habitat, as measured in weighted usable area (WUA), that is available to rainbow/cutthroat and brown trout juveniles and adults, while decreasing the WUA for spawning for rainbow/cutthroat trout. The changes in WUA for spawning brown trout and for trout fry, both winter and summer, are less discernible (Table 2). In its proposal, the licensee notes that the proposed minimum flow release of 63 cfs is much greater than the historical record when no minimum flow requirement was mandated in the reach.

We find the proposed reduction in flow may increase the WUA for certain life stages of trout in the project area, while decreasing the WUA for others. Little information is known regarding the fish populations of the Grace bypassed reach with the currently maintained 80 cfs. We expect the proposed flow reduction would not significantly impact aquatic resources.

As discussed in section 5.4, the occurrence of BCT in the Grace or Cove bypassed reaches is likely seasonal in nature. The BCT are more known to occur in tributaries of the Bear River upstream of Soda dam and in Bear Lake. Therefore, adverse impacts to BCT are not expected from the proposed action.

## **6.5 Riparian and Wetland Resources**

Overall, about 2.5 acres of wetlands lie within the area of potential disturbance. Of these, about 0.9 acres lie along the flume. The remainder is primarily associated with the fringe of wetland west of the forebay. The two main wetland areas associated with the Cove forebay do not lie in the zone of disturbance and would not be impacted by construction activities. Only the vegetation lying along the drainage channel of the wetland to the west of the forebay would be adversely impacted. Since the main wetland associated with this fringe is fed by groundwater and would not be altered during construction, we expect this fringe wetland to reestablish after construction activities are complete. Once the Cove dam is removed, restoration of natural river flow in the area of the forebay may also lead to the establishment of riparian vegetation along the 1,600 feet of newly developed river channel.

The licensee plans to protect existing wetlands along the flume and ensure that nothing is buried within wetland or drainable features. The licensee proposes to identify wetland areas along the flume and use silt fencing to prevent debris from entering them. The riparian areas along the bypassed reach, would benefit from removal of the dam and restoration of natural flow.

In sum, we expect adverse impacts to the fringe wetland to the west of the forebay. Since it is fed by groundwater, we expect this wetland to reestablish after construction

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and grading (regrading to natural contour) in the area is complete. We expect wetlands along the flume to be adversely impacted as well. Those supported by leakage from the flume (and not jurisdictional) will likely be eliminated. Those wetlands supported by ground or surface water from other sources will likely reestablish after grading is complete.

The licensee's proposed measures described above should prevent the inadvertent destruction or filling of wetlands in the area, thereby minimizing adverse impacts to wetlands during construction.

## **6.6 Wildlife Resources**

The habitat surrounding Cove forebay and other areas that may be used by birds and waterfowl would be disturbed during construction activities. These impacts would be temporary, and after construction is complete and vegetation reestablished, a portion of this habitat would be restored.

The open water of the Cove forebay would be eliminated and replaced with riverine habitat. This would likely result in a decrease in birds and waterfowl using the Cove forebay area during spring and fall migration. Given the small size of Cove forebay (about 10 acres) and the other larger bodies of water near it (such as the Grace forebay, Alexander Reservoir, and Oneida Reservoir), birds may move to these other open water habitats and stay in the general vicinity of the project. We believe the impacts to migratory birds and waterfowl resulting from the licensee's proposal would likely be minor.

## **6.7 Threatened and Endangered Species**

As summarized in section 5.7 of this EA, listed species are generally not found in the Cove development area. Species that may be present include the bald eagle, and the gray wolf. Bald eagles have been documented at the Soda development, but not at the Cove development. The gray wolf may travel through the area, but no established packs have been documented in the lower Bear River basin. By letter dated December 28, 2005, the licensee (the Commission's non-federal representative for ESA consultation) requested concurrence from the FWS that the proposed decommissioning (and associated reduction in flow in the Grace bypassed reach) may affect, but is not likely to adversely affect listed species. By letter dated January 6, 2006, the FWS concurred with that determination. We consider consultation under section 7 of the ESA complete.

In its January 6 letter, the FWS requested to be contacted to verify this determination is still valid if: (1) project parameters are changed or new information

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reveals effects of the action to a listed species to an extent not considered in the Assessment; or (2) a new species is listed or critical habitat is designated that may be affected by the project.

## **6.8 Recreation and Land Uses**

The whitewater boating flows maintained in the Black Canyon section of the Grace bypassed reach are released pursuant to the requirements of article 419 of the license. The licensee has not proposed to change those requirements, therefore, no impacts to recreational boating in the Grace bypassed reach are anticipated. Since boating is not possible at the required flow (80 cfs), the proposed reduction in flow to 63 cfs, would have no impact on boating.

Little, if any boating occurs in the Cove bypassed reach. With a return to more natural flows and removal of the Cove dam, recreational boating in this reach may be more desirable. However, little is known regarding the interest for boating this flatwater reach.

Recreational fishing opportunities in the Cove development may be temporarily suspended during construction activities. Elimination of the Cove forebay would permanently eliminate the openwater fishing; however, access to the forebay has limited its use for this type of fishing in the past. Riverine habitat would replace it. Overall, the impacts to recreational fishing are likely beneficial.

Regarding livestock grazing, the only impact on livestock grazing would be removal of the Cove flume. This would allow cattle access to the river and its associated riparian habitat. Construction of the fence along the flume right-of-way, as required by article 426 of the license, would eliminate this potential negative impact.<sup>12</sup>

## **6.9 Cultural Resources**

Many of the structures planned for removal are contributing elements to the eligibility of the Grace-Cove complex for listing on the National Register of Historic Places. Their removal would result in a significant adverse impact to these resources and

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<sup>12</sup> This measure is part of the licensee's buffer zone plan required by article 426 of the license. This plan was developed in consultation with the ECC and filed with the Commission on February 2, 2005. The licensee's plan was approved on April 11, 2006 (see 115 FERC ¶ 62,044).

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to the historical integrity of the surrounding community. Archaeological sites that have been determined to be eligible for listing on the National Register of Historic Places that are near the Cove development could potentially be adversely affected by the proposed decommissioning activities as well.

A Historic Properties Management Plan (HPMP), developed pursuant to article 423 of the license and filed by the licensee on March 30, 2005, is currently under review by Commission staff. The development of the HPMP was required by the Programmatic Agreement (PA), executed on February 25, 2003, which was made part of the license for the project pursuant to article 423. As outlined in the PA, if the HPMP is not acted upon by the Commission, as is the case here, the licensee is required to develop a Memorandum of Agreement (MOA), for the determination of effect and the protection of historic properties.

The licensee filed on April 28, 2006, an MOA on the decommissioning of the Cove hydroelectric Project, dated April 24, 2006, which was signed by the licensee and the SHPO.<sup>13</sup> Provisions of the MOA include recording the structures to the Level II standards of the National Park Service's Historical American Engineering Record (HAER). Such documentation would include written data, large-format photography, and copies of available engineering and/or architectural drawings. In addition, the licensee proposes to preserve the Cove powerhouse and implement a public interpretation program. The specifics of the program would be determined in consultation with the SHPO and the Grace City Council.

In addition and as discussed in the licensee's draft HPMP, the licensee proposes to provide cultural resources sensitivity training to all decommissioning personnel; enforcement of discovery protocols of the draft HPMP; and placement of protective barriers around all known sites.

Since construction activities are planned near lands important to the Shoshone-Bannock Tribes, some unidentified culturally and/or historically significant resources (including human remains) may be disturbed. If previously unknown resources are revealed, the MOA includes certain protocols to follow to protect these resources. In general, these protocols would require all work to stop and the appropriate entity (BLM, SHPO, and/or Shoshone-Bannock Tribes) notified of the discovery. Once the agreed upon treatment of discovery has been completed (i.e., all requirements of mitigation have been met), and agreement with the consulting party is reached, work in the vicinity of the

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<sup>13</sup> The signature page for the SHPO was provided separately on May 1, 2006.



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discovery may proceed. A report would then be prepared regarding the discovery and submitted to the SHPO, BLM, and/or the Shoshone-Bannock Tribe, as appropriate.

By letter dated March 17, 2006, we asked the Advisory Council on Historic Preservation if it intends to participate. No comments were received. By letter dated May 2, 2006, we provided the Advisory Council with a copy of the executed MOA. With implementation of the measures outlined in the MOA and adoption of the additional measures contained in the draft HPMP, we consider consultation under section 106 of the Historic Preservation Act complete.

### **6.10 Secondary and Cumulative Impacts**

Secondary impacts are those that are indirectly caused by or result from an activity, and are reasonably foreseeable. They may occur later in time than the activity and be removed in terms of distance. According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act, an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions. Based on the licensee's application, staff has determined that decommissioning of the Cove development would not cumulatively affect any resources.

The licensee identified two socio-economic issues that may be affected by decommissioning which we consider to be secondary impacts. These issues are employment and property taxes. Currently, the licensee employs approximately 15 individuals to maintain and operate the Bear River Project as a whole. No staffing positions are specific to operation of the Cove development. Although we expect that decommissioning of the Cove development may temporarily result in an increase in short-term employment opportunities, we anticipate a reduction in the workload associated with the 15 current positions. Even with continued maintenance at the Cove development after decommissioning (i.e., weed control, safety checks, and general maintenance), the licensee anticipates that removal of the Cove development may reduce the need for up to one long-term employment position. We consider this impact on employment in the project vicinity to be minor.

In terms of property taxes, the licensee states that with the conversion from a generation facility, it is uncertain how decommissioning would affect property taxes paid to Caribou County, but it is expected that any change would not be significant. Several

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commenters expressed concern over taxes as well.<sup>14</sup> According to the licensee, if the Cove development were decommissioned, it would no longer be considered a generation facility and therefore would not factor into the centrally assessed system of valuating pooled facilities. Rather, it would be taxed according to Caribou County's assessment of property values. While we acknowledge the loss of generation at the Cove development, we agree with the licensee that it is difficult to predict the impact, if any, on property taxes paid to Caribou County. We also cannot require the licensee to continue to operate a development it no longer wishes to maintain, in the interest of maintaining certain taxes paid by the licensee.

Likewise, we acknowledge that generation at the Cove development is a clean, renewable, and valuable energy source, as several commenters noted. The licensee's proposal to decommission the Cove development is based on an interest among many parties and will result in a number of benefits to various resources in the area. While some object to the elimination of generation derived from a renewable resource, or object to decommissioning because the project may be sold at some point in the near future,<sup>15</sup> we cannot require the licensee to continue to generate for these reasons.

## **7.0 ACTION AND NO-ACTION ALTERNATIVES**

### **7.1 Grace-Cove Interconnect Canal**

Under this alternative, water would be delivered directly from the Grace tailrace to the Cove intake via a newly constructed canal. A 4-foot-high rock-filled weir across the Bear River, just upstream of the Grace tailrace, would be constructed to allow maximum generation at the Cove powerhouse. Flow releases would not be altered in the bypassed reaches.

Cove dam would be removed and the Cove flume would be repaired, but other historically significant features of the development would remain intact and operating. The potential for sediment releases related to construction of the canal, diversion weir, and removal of Cove dam would be similar to that expected under the proposed alternative, as well as impacts to wetlands surrounding the forebay. Temporary and minor impacts to fish and wildlife resources and recreation resources would be similar to that expected from the proposed action.

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<sup>14</sup> These commenters include Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James.

<sup>15</sup> See Senator Geddes' comments filed November 22, 2005.

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## **7.2 Fish Passage Alternative**

Under this alternative, a vertical-slot fish ladder would be constructed at the Cove dam. A ladder is currently present but is inoperable and would be removed. The intake to the Cove powerhouse would be screened and tailrace barriers would be constructed at both the Grace and Cove developments. The Cove flume would be repaired. Historical features of the Cove development would remain intact and operating, although repair work and the associated modifications (i.e., related to the addition of a fish ladder, tailrace barriers and the like) would alter some of the facilities.

Since construction activities associated with this proposal are more limited in nature than either the proposed action or the Grace-Cove Interconnect Canal described above, potential impacts to water quality associated with sediment releases would be reduced significantly. Wetlands in the area would remain untouched and fish passage would be provided around Cove dam, a benefit to fish resources. Fish screens and tailrace barriers would further protect fish in the area from project-related impacts. However, delays in passage may occur and/or contact with the screens may cause some injury. Since Cove forebay would remain, no impacts to birds inhabiting the area are expected. Recreation and wildlife resources would not be impacted.

## **7.3 No-Action Alternative**

Under the No-Action Alternative, the Cove development would remain part of the Bear River Project. Rehabilitation of the flume and other facilities would ultimately be necessary. Flows in the Grace bypassed reach would remain at 80 cfs, or natural inflow, whichever is less. Temporary impacts to water quality may occur during flume rehabilitation. In addition, adverse impacts to the wetlands fed by leakage from the flume are expected. No long-term impacts to wetlands associated with the forebay, fish and aquatic resources, recreation, or wildlife resources are expected from the No-Action Alternative.

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

We have evaluated the environmental effects of the Proposed Action, Action Alternatives, and the No-Action Alternative. Significant construction activities are involved with the proposed action and the Grace-Cove Interconnect Canal, and to a lesser degree with the Fish Passage alternative and the No-Action Alternative. We recommend the proposed action as the preferred alternative for the following reasons: (1) temporary adverse impacts on aquatic and wildlife resources would be minimized by measures implemented by the licensee; (2) most wetlands fed by groundwater impacted by

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construction should reestablish; and (3) all federal, state, and local permits would be obtained prior to construction.

With the preferred alternative, temporary adverse impacts are expected on water quality, birds, and wetlands during construction. Provisions of the WQC should minimize impacts to water quality during construction and ensure that in the event state standards are not met, timely consultation with the IDEQ occurs. We are adopting the WQC and its provisions will be attached to the order. No impacts are expected from the proposed action in terms of chemicals adsorbed to the sediments, BCT, or recreational boating in the Grace bypassed reach (Black Canyon).

The permanent adverse impact on historic properties associated with the preferred alternative is significant. To mitigate for these impacts, we recommend the licensee implement the MOA on the decommissioning of the Cove Hydroelectric Project, dated April 24, 2006, that would require documentation of all properties to Level II standards of HAER (including written data, photographs, and copies of detailed design drawings) and develop an interpretative program in consultation with the SHPO and the Grace City Council, as well as other measures designed to protect remaining properties. We also recommend the licensee provide cultural resources sensitivity training for all decommissioning personnel and place protective barriers around known archaeological sites in the Cove development area.

In terms of listed species under ESA, we do not expect any listed species to be impacted by the licensee's proposal. As discussed in Section 6.7, the FWS recommended it be consulted with in the event that: (1) project parameters are changed or new information reveals effects of the action to a listed species to an extent not considered previously; or (2) a new species is listed or critical habitat is designated that may be affected by the proposal. The licensee is reminded that if the above conditions occur, the licensee should consult with the FWS.

The licensee and other members of the ECC have developed the Cove SA which, in their view, defines the licensee's obligations regarding decommissioning. We consider most of the measures included in the Cove SA appropriate and adequate. These measures include, but are not limited to obtaining all necessary permits prior to construction; using accepted standard erosion control techniques; and properly identifying all existing wetlands in the area and protect them from fill using silt fencing and/or other appropriate means. With approval of the licensee's application, these measures would be required.

We recommend that article 408 be amended accordingly, i.e., reducing the required minimum flow in the Grace bypassed reach to 63 cfs, plus leakage, and eliminating the reference to a minimum flow in the Cove bypassed reach.

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Lastly, we discuss the proposed article that stipulates the agreed upon funding provisions of decommissioning, described fully in Section 3.1 of this EA. In general, this article would require the licensee to provide money to the ECC, in the event that decommissioning costs are less than \$2.5 million net present value (in 2005 dollars). In the licensee's application, no detail was given as to how the monies would be spent or how such expenditures would relate to project-related impacts. Rather than the establishment of a general fund such as this one, the Commission prefers to require specific measures to resolve specific project-related impacts. Therefore, we do not recommend adoption of this measure. The parties to the Cove SA and members of the ECC are free to develop such a fund, but we are not recommending adoption of this measure as a Commission requirement.

## **9.0 FINDING OF NO SIGNIFICANT IMPACT**

This environmental assessment was prepared pursuant to the National Environmental Policy Act of 1969. Approval of the proposed action, the preferred alternative, would not be a major federal action significantly affecting the quality of the human environment.

## **10.0 LITERATURE CITED**

Buchman, M.F. 1999. NOAA Screening Quick Reference Tables, NOAA HAZMAT Report 99-1. Seattle, Washington. Coastal Protection and Restoration Division, National Oceanic and Atmospheric Administration, 12 pages.

Federal Energy Regulatory Commission (FERC). 2003. Final Environmental Impact Statement for Relicensing the Soda Project, Grace-Cove Project, and Oneida Project. April 2003.

PacifiCorp. 2005. Application for Amendment of License and Submission of Offer of Settlement to Remove the Cove Development and Reduce Minimum Flow Requirements in the Grace Bypassed Reach; Bear River Project, No. 20. Dated April 15, 2005.

## **10.0 PREPARER**

Diana Shannon, Aquatic Ecologist



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115 FERC \*62,205  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp

Project No. 20-065

## ORDER AMENDING LICENSE AND REVISING ANNUAL CHARGES

(Issued May 23, 2006)

On August 16, 2005, PacifiCorp (licensee) filed an application for amendment of license for the Bear River Project to remove its Cove development and reduce minimum flow requirements in the bypassed reach of the Grace development. Both the Grace and Cove bypassed reaches pass through sections of BLM-administered land. However, no federal land falls within the zone potentially disturbed by removal of facilities. The project is located on the Bear River in Caribou and Franklin counties, Idaho.

## PROJECT DESCRIPTION

On December 22, 2003

105 FERC \* 62,207.

[1]

, the Commission issued a new license which combined Oneida development (P-472), Grace/Cove development (P-2401), and Soda development (P-20) and renamed it the Bear River Project (P-20). The Bear River Project as a whole has an installed power generation capacity of 84.5 MW. The Grace-Cove developments, operating in concert, have an installed capacity of 40.5 MW. The Cove development has an installed capacity of 7.5 MW.

The Cove development is located on the Bear River south of Grace, Idaho. The development has a total of 117 acres land, of which 114 acres are PacifiCorp's land and 3 acres are federal land, within its project boundary. The project area occupies 66 acres located between the upstream Grace tailrace and the downstream Cove tailrace. The facilities include: (1) a 26.5-foot-high and 141-foot-long concrete dam containing a 10-acre (60-acre-foot) forebay; (2) an 88-foot-wide intake structure containing five 12-foot-wide openings, fitted with vertical bar screens, a transition section to rectangular flume, and Tainter gate just upstream of the flume, measuring 20 feet by 14.5 feet; (3) a 6,125-foot-long conveyance flume consisting of a 425-foot-long concrete section and a 5,700-foot-long wooden flume section; (4) a 550-foot-long steel penstock; (5) a 28.5-foot by 46-foot powerhouse containing a single Francis turbine; (6) an unlined open-channel tailrace; (7) a substation containing step-up transformers, located adjacent to the powerhouse; and (8) a 46-kV transmission line to the Grace substation and to the Cove West substation.

Article 408 of the license requires PacifiCorp to release 80 cubic feet per second (cfs), or inflow, whichever is less, in addition to 2 cfs leakage below Grace Dam.

113 FERC \* 62,167 (2005).

[2]

Article 408 also requires the release of 10 cfs or inflow, (from October 1 through March 31) and 35 cfs or inflow (from April 1 through September 30), whichever is less, in addition to current leakage from Cove Dam.

## BACKGROUND

In May and September 2000, failures of the Cove flume caused erosion and scouring, and ultimately resulted in sediment releases into the Bear River.

For a detailed history, see 105 FERC \* 62,207 (2003).

[3]

Articles 302 through 306 of the license required the filing of plans and specifications and other necessary documents prior to the flume's rehabilitation. Concurrently, the Bear River Settlement Agreement on Relicensing (Relicensing SA), dated August 28, 2002, and the new license for the project stipulated various types of fish protection and enhancement measures for the Bonneville Cutthroat Trout (BCT), an Idaho species of concern.

Article 403 of the license required PacifiCorp to develop a comprehensive BCT restoration plan,

This plan, with the exception of the Cove decommissioning study provision, was approved by the Commission on December 2, 2004 (see 109 FERC \* 62,151).

[4]

in consultation with the Environmental Coordination Committee (ECC).

Established pursuant to Article 402 and Section 4.1 of the Relicensing SA.

[5]

As a provision of this plan, article 403 required the licensee to study the feasibility of improving passage at the Cove development, to include an assessment on decommissioning the development. The licensee addressed this provision of the plan in reports filed with the Commission on September 1, and December 10, 2004. This work ultimately led to the licensee's August 16, 2005 amendment application and Cove SA.

#### THE AMENDMENT

PacifiCorp proposes to amend the license to remove its Cove development to and reduce minimum flow requirements in the bypassed reach of the Grace development for the Bear River Project. PacifiCorp would remove the Cove development consistent with the terms and schedule contained in the Cove SA and the Removal Plan. Under the proposal, PacifiCorp would deconstruct and remove project facilities, including the dam and sediment, penstock intake superstructure, flume, and all petroleum products and station batteries in powerhouse of the Cove development, and adjust minimum flows in the Grace bypassed reach to compensate for deconstruction and removal costs.

Construction activities would commence in July 2006 and continue through November 2006. Demolition work in the Cove's forebay area would be performed during October and November when river flows are typically low in order to minimize sediment transport potential.

PacifiCorp proposes to decommission the Cove development but believes the cost of such a measure would, on its own, be prohibitive. In view of these considerations, the Parties have agreed on a proposal to reduce the required minimum flow release in the Grace bypassed reach from 80 to 63 cfs. The licensee proposes to amend Article 408 to eliminate any reference to minimum flow requirements at the Cove development. Reducing flows in the Grace bypassed reach would provide PacifiCorp with 17 cfs of additional flow for power generation at the Grace powerhouse that would partially offset the loss of Cove development generation.

In addition, in the event that decommissioning costs are less than \$2.5 million net present value (NPV; in 2005 dollars), PacifiCorp proposes to provide additional mitigation funds for use by the ECC in an amount equal to the difference between \$2.5 million NPV and the decommissioning costs.

#### CONSULTATION

The licensee included with its August 16, 2005 application the Cove SA. Signatories to the Cove SA, with an effective date of July 20, 2005, include: PacifiCorp; U.S. Fish and Wildlife Service (FWS); U.S. Bureau of Land Management (BLM); U.S. National Park Service (NPS); U.S. Forest Service (FS); Shoshone-Bannock Tribes (Tribes); Idaho Department of Environmental Quality (IDEQ); Idaho Department of Fish and Game (IDFG); Idaho Department of Parks and Recreation (IDPR); Idaho Council of Trout Unlimited (ITU); Idaho Rivers United (IRU); Greater Yellowstone Coalition (GYC); and American Whitewater (AW). The parties to



the Cove SA support the licensee's proposal to decommission the Cove development and, in efforts to offset associated costs, reduce the minimum flow in the Grace development bypassed reach from 80 to 63 cfs, or inflow, whichever is less, in addition to 2 cfs leakage from Grace Dam.

#### PUBLIC NOTICE

The Commission public noticed the licensee's application on October 11, 2005, with a comment period ending November 14, 2005. The State Of Idaho, the licensee, the Franklin County Fish and Game Association, U.S. Department of Interior, Mr. Stan Christensen, City of Soda Springs, and State Senator Robert L. Geddes all filed comments in response to the Commission's notice. Only the State of Idaho filed a Motion to Intervene in the proceeding. In general, PacifiCorp, the State of Idaho, and the Franklin County Fish and Game Association expressed support for decommissioning the Cove development. Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney did not. The Department of Interior indicated it had no comments. These comments are fully described and addressed in the Commission's EA, as attached to this order.

#### WATER QUALITY CERTIFICATION

Section 401(a) (1) of the Clean Water Act (CWA)  
33 U.S.C. \* 1341(a) (1).

[6]

and Commission regulations require that an applicant for a federal license or permit to conduct an activity that may result in a discharge into waters of the United States must provide the licensing or permitting agency with water quality certification (WQC) that the discharge would not violate water quality standards from the applicable state. The federal agency may not authorize the activity unless certification has been obtained or the state has waived certification through failure to act on the request for certification within 1 year after receipt of that request. By letter dated January 13, 2006, we informed the licensee that water quality certification was necessary and asked for documentation of a WQC or a waiver from the IDEQ. The IDEQ issued a certification on April 7, 2006, for the proposal. Conditions of the WQC are discussed in the EA, and are attached to this order, as Appendix A. These conditions are required and made a part of this order.

#### NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency take into account the effect of the proposed undertaking on any historic property. Historic properties include districts, sites, buildings, structures, traditional cultural properties and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register.

The NHPA also provides for the appointment of State Historic Preservation Offices (SHPOs) to facilitate the implementation of federal cultural resource policy at the state level, and requires the federal agency to consult with Native American tribes who attached religious or cultural importance to cultural resources under their jurisdiction.

As discussed in the EA, the licensee and the SHPO executed a Memorandum of Agreement, titled Memorandum of Agreement between the licensee and the Idaho State Historic Preservation Office, on the Decommissioning of the Cove Hydroelectric Project, dated April 24, 2006, which outlines those measures that will be taken to mitigate for the adverse impact on historic properties that will result from the decommissioning of the Cove development. Also, as recommended in the attached EA, the licensee should provide cultural resources sensitivity training to all decommissioning personnel and place protective barriers around all known archaeological sites in the Cove development area.

#### ENDANGERED SPECIES ACT

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of endangered or threatened

species, or result in the destruction or adverse modification of the critical habitat of such species.

By letter to the licensee, dated December 1, 2005, the Commission notified the FWS that the licensee was designated the Commission's non-federal representative for consultation in this matter. Subsequently, the licensee requested initiation of consultation with the FWS by letter dated December 28, 2005. The licensee concluded that the proposed action, may affect, but is not likely to adversely affect, listed species that may occur in the project area. By letter dated January 6, 2006, the FWS concurred with that determination.

## DISCUSSION

### 1. Licensee's Proposed Articles

First and foremost, we acknowledge the parties efforts in developing the Cove SA, the project removal plan, and the proposed license articles. The Commission generally favors the development of such settlement agreements and often adopts many of the provisions of such settlements. In the case here, the licensee proposes three articles to be included in any amendment of license. In sum, these articles are: (1) the adoption of the project removal plan included with the application; (2) a decommissioning funding article, where any excess funds related to decommissioning would be provided to the ECC; and (3) modifying article 408 to remove the Cove bypassed reach minimum flow requirement and reduce flow in the Grace bypassed reach to the lesser of 63 cfs, or inflow.

We have reviewed the project removal plan and find that the plan generally defines how the Cove facilities will be removed and how the affected property will be regraded and seeded. Therefore, we recommend inclusion of the project removal plan article, as shown in ordering paragraph (B). Likewise, the proposed modifications to article 408 are consistent with what has been agreed to and we found in the EA, attached to and made part of this order that restoration of natural flow in the Cove bypassed reach would be beneficial and that the proposed reduction in flow in the Grace bypassed reach would not result in significant effects on the resources in that reach. Therefore, article 408 should be so modified, as shown in ordering paragraph (L).

Regarding the proposed funding article, the Commission generally does not favor such funds.

See 110 FERC \* 61,056 (2005).

[7]

Rather, we prefer to require specific measures to resolve specific project impacts. This is particularly true where, as is the case here, it is not clear to what extent the funds will be used for activities related to the project. Therefore, we will not adopt this proposed article as a requirement under the license.

### 2. Project Features Change

Removal of the Cove development would reduce the Bear River Project's authorized installed capacity by 7.5 MW and the federal lands used by the project by 3 acres; the authorized installed capacity would be reduced from 84.5 MW to 77 MW, and the federal lands from 510.59 to 507.59 acres. As a result, article 201 of the license is revised to reflect the change in the annual charges, as shown in ordering paragraph (M). Deletion of the decommissioned Cove development from the license may become effective only upon the fulfillment by the licensee of such obligation under the license as the Commission may prescribe. As such, in addition to the requirements under the attached WQC that we will require in ordering paragraph (D), we will also require the filing of plans and specifications before undertaking demolition, as shown in ordering paragraph (G) and (H). In ordering paragraph (I) we will require the filing of monthly progress reports during decommissioning activities. After completion of decommissioning activities, the licensee must file documentation that the Cove development facilities have been removed and the site restored in accordance with the approved plans, as shown in ordering paragraphs (J). The deletion will not be effective until all these conditions have been satisfied and the Portland Regional Engineer has issued a letter notice

stating such. To reflect the as-built conditions of the project after all decommissioning activities are final, we will require the licensee to file revised Exhibits A, F and G, as shown in ordering paragraph (K).

### 3. Environmental Review

The Commission prepared the EA pursuant to the National Environmental Policy Act of 1969, and concluded that approval of the license amendment would not be a major federal action significantly affecting the quality of the human environment. Demolition and removal of the dam, penstock, and associated materials would likely result in short-term ground-disturbing activities and erosion, which may cause an increase in turbidity, and short-term disturbances to some wildlife species and their associated habitats. The licensee will, in cooperation with appropriate natural resource agencies, revegetate disturbed or affected areas after de-construction and will re-seed areas with certified noxious weed-free seed mixes. In summary, removal of the Cove development will result in environmental benefits for Aquatic resources in the project area, and reducing minimum flows in the Grace Bypassed Reach will provide net customer benefits and will not result in significant adverse environmental impacts. In addition, the landscape will be improved aesthetically and flows will continue naturally down Bear River.

#### SUMMARY

Based on our review of the filing and findings in our EA, we conclude that approving the amendment application to remove the Cove development is not a major federal action significantly affecting the quality of the human environment. This order approves the amendment of license as conditioned in the ordering paragraphs below.

The Director orders:

(A) PacifiCorp's application for amendment of license to remove the Cove development and reduce minimum flow requirements in the Grace bypassed reach for the Bear River Hydroelectric Project No. 20, filed on August 16, 2005, is approved.

(B) The licensee shall implement the Project Removal Plan attached as Appendix B to the licensee's August 16, 2005 filing.

(C) Since the decommissioning proposal does not specifically address what is to be done with the project's 550-foot-long, 12.5-foot-diameter, buried steel penstock, the licensee shall seal the upstream end of the penstock for safety measures.

(D) This order is subject to the conditions of the Water Quality Certificate that was issued on April 7, 2006, by the Idaho Department of Environmental Quality for the decommissioning of the Cove development, attached to and made part of this order.

(E) The licensee shall implement the Memorandum of Agreement between the licensee and the Idaho State Historic Preservation Office, on the Decommissioning of the Cove Hydroelectric Project, dated April 24, 2006.

(F) The licensee shall also provide for cultural resources sensitivity training for all decommissioning personnel and place protective barriers around known archaeological sites in the Cove development area.

(G) At least 60 days before starting removal of the project features, the licensee shall submit one copy of the following documents to the Commission's Division of Dam Safety and Inspections (D2SI) - Portland Regional Office and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI): (1) final contract plans and specifications; (2) Quality Control and Inspection Program; (3) Temporary Construction Emergency Action Plan; (4) a blasting plan, if necessary; (5) a public safety plan for the period during removal activities; and (6) a detailed erosion and sediment control plan. The licensee may not begin removal activities until the D2SI-Portland Regional Office has reviewed and commented on the plans

and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of removal activities.

(H) Before starting construction of any cofferdam, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations, and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Portland Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections), of the approved cofferdam construction drawings and specifications and the letters of approval.

(I) During decommissioning activities, the licensee shall submit one copy to the Portland Regional Office of monthly progress reports.

(J) Within 30 days of completing decommissioning activities and site restoration, the licensee shall submit one copy to the Portland Regional Office and two copies to the Commission of a final report which demonstrates that the project facilities have been removed and the project site restored in accordance with the approved plans. Deletion of the decommissioned Cove Development from the license does not become effective until the Division of Dam Safety and Inspections' Portland Regional Office (D2SI-PRO) performs a final site inspection, and the Regional Engineer issues a letter confirming the development removal has been completed in accordance with the license amendment order, satisfying all license articles including the requirements of this ordering paragraph.

(K) Within 90 days from satisfying the requirements of ordering paragraph (J), the licensee shall file revised Exhibits A, and Exhibits F and G drawings that are affected by this order, to reflect the project as-built after decommissioning of the Cove development. The licensee must prepare all exhibit drawings in accordance with sections 4.39 and 4.41 of the Commission's regulations.

(L) Article 408 of the license is amended to read:

Article 408. The licensee shall maintain continuous minimum bypass flows from the project development as follows:

(a) below the Soda dam: a year-round minimum flow of 150 cfs, or inflow into the Soda reservoir, whichever is less;

(b) Grace bypassed reach: a year-round minimum bypass flow of 63 cfs or inflow, whichever is less, in addition to 2 cfs leakage below Grace dam;

(c) Oneida reach below the powerhouse: a year-round minimum flow of 250 cfs or inflow, whichever is less, in addition to 1 cfs leakage below Oneida dam.

The licensee shall maintain reservoir levels in accordance with historic practices, water rights and flood control responsibilities that are memorialized in water contracts and agreements, an interstate compact and its subsequent amendments, and judicial decrees and opinions.

The licensee may suspend the flows described in this article on a temporary basis to facilitate regular maintenance or emergency repairs, or for equipment failures or unforeseen hydrologic events beyond the licensee's control. The licensee shall consult with the ECC regarding when to schedule and how to conduct regular maintenance, and shall consult with the ECC, to the extent practicable, in emergency situations. The licensee shall implement regular maintenance routines including drawdown and project shutdown activities so that aquatic resources, including fish spawning and rearing, are protected to the maximum extent practicable. The licensee shall minimize the number of such project maintenance shutdowns, drawdowns, and spillway tests and shall attempt to schedule such activities at times that shall not interfere with trout spawning or harm incubating trout eggs. If project operations or the minimum flows are modified in accordance with this article, the licensee shall notify the Commission as soon as possible, but not later than 10 days after

each such incident, and shall provide the reason for the modified operation.

Nothing in this article shall require the licensee to violate its obligations under, or permit or require any action inconsistent with, the water contracts and agreements, interstate compact, judicial decrees, state water rights, and flood control responsibilities described in Section 5.10 and Appendix C of the August 28, 2002, Settlement Agreement, or in Section 9 of the July 28, 2005, Cove Development Decommissioning Settlement Agreement.

(M) Article 201 of the license is revised to read as follows:

Article 201. The licensee shall pay the United States the following annual charges, effective from the issuance date of this order for purposes of:

- (a) Reimbursing the United States for the cost of administration of Part I of the Federal Power Act, a reasonable amount as determined in accordance with the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 77 megawatts.
- (b) Recompensing the United States for the use, occupancy and enjoyment of 503.59 acres of its lands, other than for the use of transmission lines.

(N) 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.

Mohamad Fayyad  
Engineering Team Lead  
Division of Hydropower

Administration

and Compliance

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ENVIRONMENTAL ASSESSMENT

Bear River Project, FERC No. 20-065

Decommissioning of the Cove Development and a Reduction in Minimum Flow in the Bypassed Reach of the Grace Development

Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Administration and Compliance  
888 First Street, N.E.  
Washington, D.C. 20426

May 2006  
ENVIRONMENTAL ASSESSMENT

FEDERAL ENERGY REGULATORY COMMISSION  
OFFICE OF ENERGY PROJECTS  
DIVISION OF HYDROPOWER ADMINISTRATION AND COMPLIANCE

1.0 APPLICATION AND BACKGROUND

1.1 Application

On August 16, 2005, PacifiCorp (licensee) filed an application to amend the license for the Bear River Project. In its application, the licensee requests to decommission the facilities associated with the Cove Development. To partially offset the associated loss of revenue, the licensee also requests to reduce the minimum flow in the bypassed reach of the Grace development from the required 80 cubic feet per second (cfs), plus leakage from the dam of 2 cfs, to 63 cfs, plus leakage.

Article 408 was amended to quantify the 2 cfs leakage from Grace Dam, as well as the 1 cfs leakage from Oneida Dam, on December 2, 2005 (see 113 FERC \* 62,167).

[8]

Included with the August 16, 2004 application, was a "Settlement Agreement Concerning the Decommissioning of the Cove Development" (Cove SA), signed by many of the parties to the relicensing process.

The Bear River Project is located on the Bear River in Caribou and Franklin Counties, Idaho, and consists of the Soda, Grace, Cove, and Oneida developments and has an installed capacity of 84.5 MW, of which the Cove development has an installed capacity of 7.5 MW (Figure 1). The Commission recently issued a new license for the project on December 22, 2003.

105 FERC \* 62,207 (2003). See also Order on Rehearing, issued March 26, 2004 (106 FERC \* 61,307).

[9]

The Cove development is located on the Bear River south of Grace, Idaho. Facilities at the development include: (1) a 26.5 foot-high and 141-foot-long concrete dam containing a 10-acre (60 acre-foot) forebay; (2) an 88-foot-wide intake structure containing five 12-foot-wide openings, fitted with vertical bar screens, a transition section to rectangular flume, and a tainter gate just upstream of the flume, measuring 20 feet by 14.5 feet; (3) a 6,125-foot-long flume consisting of a 425-foot-long concrete section and a 5,700-foot-long wooden section; (4) a 550-foot-long steel penstock; and (5) a powerhouse containing a single Francis turbine; (6) an unlined open-channel tailrace; (7) a substation containing step-up transformers, located adjacent to the powerhouse; and (8) a 46-kV transmission line to the Grace substation and to the Cove West substation.

Figure 1

Page 2

Public access for the above information is available only through the Public Reference Room, or by email at [publicreferenceroom@ferc.gov](mailto:publicreferenceroom@ferc.gov)

Both the Grace and Cove bypassed reaches pass through sections of U.S. Bureau of Land Management administered land. However, no Federal land falls within the zone potentially disturbed by removal of the facilities.

This Environmental Assessment (EA) considers the environmental effects of the licensee's proposed actions.

## 1.2 Background

In May and September 2000, failures of the Cove flume occurred destroying vegetation, causing erosion and scouring, and ultimately resulted in sediment releases into the Bear River.

For a detailed history, see 105 FERC \* 62,207 (2003).

[10]

Several articles of the new license (articles 302 through 306) required the filing of plans and specifications and other necessary documents prior to the flume's rehabilitation. Concurrently, the Bear River Settlement Agreement on Relicensing, dated August 28, 2002 (Relicensing SA), and the new license for the project stipulated various types of fish protection and enhancement measures for the Bonneville cutthroat trout (BCT), an Idaho species of concern. Specifically, article 403 of the license required the licensee to develop a comprehensive Bonneville Cutthroat Trout (BCT) restoration plan,

This plan, with the exception of the Cove decommissioning study provision, was approved by the Commission on December 2, 2004 (see 109 FERC \* 62,151).

[11]

in consultation with the Environmental Coordination Committee (ECC).

Established pursuant to Article 402 and Section 4.1 of the Relicensing SA.

[12]

As a provision of this plan, article 403 required the licensee to study the feasibility of improving passage at the Cove development, to include an assessment on decommissioning the development. The licensee addressed this provision of the plan in reports filed with the Commission on September 1, and December 10, 2004. This work ultimately led to the licensee's August 16, 2005 amendment application and Cove SA. Provisions of the Cove SA are discussed in detail in Sections 3.1 and 4.1 below.

## 2.0 PURPOSE AND NEED FOR POWER

### 2.1 Purpose

The Commission must decide whether, and under what conditions, to grant the licensee's proposal. This environmental assessment (EA) analyzes the environmental effects of four alternatives: (1) approval of the licensee's proposal, leading to the decommissioning of the Cove development and a flow reduction in the Grace bypassed reach (Proposed Action); (2) the construction of a Grace-Cove Interconnect Canal; (3) the installation of fish passage facilities at the Grace and Cove developments; and (4) no action (No Action alternative).

### 2.2 Need for Power

Although the proposed decommissioning of the Cove development would result in a net loss of power generation, the licensee states the need for power was considered in its development. The project as a whole has historically produced 366,528 Megawatt-hours per year (MWh/year; based on a 30-year net generation average). The Grace development has produced 148,353 MWh/year, and the Cove development 29,513 MWh/year. Approval of the proposed reduction in flow from the Grace bypassed reach (amounting to an additional 17 cfs through the Grace powerhouse) would generate an additional 4,721 MWh/year at the Grace development.

The licensee conducted an analysis comparing Cove decommissioning with flume rehabilitation and resumed operation. To determine the value of the additional 17 cfs to be received at the Grace development under the decommissioning proposal, the licensee compared the benefit of decommissioning and the additional flows to the Grace development over 30 years, assuming decommissioning would cost \$3.2 million. Based on that analysis, the licensee determined there would be a net customer benefit and that the return on generation potential would be equivalent, on a total project basis, to compensation for the estimated decommissioning costs.

## 3.0 PROPOSED ACTION AND ALTERNATIVES

### 3.1 Proposed Action

With its application, the licensee included a detailed Project Removal Plan. In general, the licensee proposes to

remove all of the Cove development facilities except for the powerhouse building, substation and transmission lines. Features to be removed include the Cove dam, intake structures, and flume. The area to be disturbed covers approximately 66 acres, primarily in the areas of the forebay, flume, and powerhouse (Figure 2).

First, the forebay would be dewatered in stages to minimize sedimentation. All flow during this time would be spilled into the river channel below the dam rather than via the flume. Secondly, the Cove dam would be demolished. To do this, a cofferdam would be installed below the dam to divert spill away from the work area (Figure 3). The dam's concrete wall would be softened using explosives. Concrete would then be removed and broken up using excavators, bulldozers and the like. Material would be removed or buried on site, and the area graded.

Figure 2. Area of disturbance at the Cove development under the licensee's proposal (Source: PacifiCorp, 2005, as modified by staff).

Figure 3. Main elements of Removal Plan (Source: PacifiCorp, 2005, as modified by staff).

Additional cofferdams would be installed in the forebay to direct flow first into the eastern channel of the forebay, i.e. through the intake structure and into the river channel below the dam (Figure 3). Sediments from the exposed western portion of the forebay would then be excavated in the dry and either deposited and graded on the adjacent bank, or used to cover the demolished flume. Standard erosion control measures would be used. Then the cofferdam at the upper end of the forebay would be relocated to the eastern bank, allowing flows to shift to the new western channel. The process would then be repeated on the eastern bank of the forebay.

The third phase of decommissioning would involve the removal of the intake structure, flume, and pressure box. Heavy equipment would be used. All concrete and rubble would be buried on site in designated locations where it would facilitate grading. The flume's remaining concrete, wood, and liner material would be buried in place. All protruding metal would be removed. Wetlands and drainages around the flume would be protected from damage and kept free from demolition and fill. Fourth, the Cove powerhouse would be decommissioned. Windows would be covered with 3/4 inch plywood and all petroleum products and batteries removed from the building. Lastly, all disturbed areas would be revegetated with an ECC approved seed mix and willow slips. Work would begin in July 2006 and continue through November 2006. Demolition work in the Cove forebay area would occur when river flows are typically low, i.e., October-November 2006.

As a result of the Cove decommissioning, natural flow would be restored in the Cove bypassed reach (about 1.4 miles of the Bear River channel below the dam). To offset the associated loss of revenue, the licensee proposes to reduce flow releases from Grace Dam to the Grace bypassed (Black Canyon) reach of the Bear River, from the required 80 cfs to 63 cfs or inflow, whichever is less, in addition to 2-cfs leakage below Grace Dam.

To minimize the potential for adverse impacts during removal of the facilities, the licensee plans to implement the following measures: standard erosion control practices during construction; staged releases during dewatering of the forebay to minimize the potential for sediment releases; monitoring of water quality; obtaining appropriate federal, state, and local permits; revegetation and grading of the site; and filing revised exhibit drawings with the Commission.

In addition, the licensee proposes to identify and protect wetlands in the area during construction, as well as mark any identified historic and/or cultural properties in the area. These measures are discussed more fully in Section 6 below. The licensee proposes the addition of three articles to the license in relation to the Cove decommissioning, including adoption of the project removal fund, establishment of a decommissioning fund, and amending article 408. These are summarized as follows:

Article 1. The licensee shall implement the Project Removal Plan.



Article 2. Within 120 days from completion of the decommissioning, a report would be filed with the Commission detailing the decommissioning costs. If those costs are less than \$2.5 million net present value (NPV; in 2005 dollars), the licensee shall provide additional mitigation funds in an amount equal to the difference between \$2.5 million NPV and the decommissioning costs. Within 90 days from the Commission's acceptance of the report, the licensee shall provide those funds for use by the ECC. Funds not expended in a given calendar year may be carried over for use in the succeeding year. Carried over funds shall bear interest but shall not further escalate. Upon expenditure, one half of the accrued interest shall belong to the licensee, and one half of the interest shall be available for mitigation under this article. Any funds not expended by the end of the license term shall not be available for any other purposes.

Article 408 (in pertinent part). The licensee shall maintain continuous minimum bypass flows from the project development as follows:

(b) Grace bypassed reach: a year round minimum bypass flow of 63 cfs or inflow, whichever is less, in addition to current leakage from Grace dam, provided however that during the period of Cove dam deconstruction, this continuous minimum flow requirement may be suspended or reduced as set forth in the Project Removal Plan.

This minimum flow release would take effect immediately upon issuance of a Commission order approving the license amendment and continue through the license term.

[13]

In addition, reference to a minimum flow release in the Cove bypassed reach would be removed from article 408.

### 3.2 Action Alternatives

Several alternatives were considered during the development of the proposed action: (1) the Grace-Cove Interconnect Canal; (2) fish passage alternatives at the Grace and Cove developments; (3) uncontrolled demolition of the Cove dam and its facilities; and (4) Federal take-over of the development. The latter two alternatives were eliminated from consideration due to sediment concerns and the unlikelihood of Congressional involvement, respectively. The first two alternatives are described more fully below.

#### 3.2.1. Grace-Cove Interconnect Canal

Under this alternative, the licensee would remove Cove dam, construct a canal connecting the Grace tailrace and Cove intake, and rehabilitate the Cove flume for continued power generation. Thus, water would be channeled directly from the Grace tailrace to the Cove intake. Since the hydraulic capacity of the Grace powerhouse is 267 cubic feet per second (cfs) less than that of the Cove powerhouse, a weir across the Bear River would be constructed approximately 200-300 feet upstream of the Grace tailrace in order to allow maximum generation at the Cove powerhouse. Fish passage would be provided for access above the weir, as well as screens on the intake to avoid impingement of fish. A spillway would be constructed to divert water from the Grace tailrace to the Bear River in the event of a Cove powerhouse outage. Comparable equipment and methods to that used for the proposed action would be necessary for implementation of this alternative.

#### 3.2.2. Fish Passage Alternative

This alternative would improve fish passage and/or protection measures at the existing facilities at the Cove and Grace developments. It includes the addition of a vertical-slot fish ladder at the Cove dam, intake fish screens at the Cove development, and tailrace barriers at both the Cove and Grace developments. The Cove flume would be rehabilitated, and generation at the Cove development would be retained. Again, comparable equipment and methods to that used for the proposed action would be used under this alternative. None of the Cove project features would be removed.

3.3 No-Action Alternative

Under the No-Action Alternative, the Commission would deny the licensee's application. Denial of the application would maintain the Cove development as part of the Bear River Project. Flows in the Grace bypassed reach would remain at 80 cfs or inflow, whichever is less, in addition to 2-cfs leakage, as required by article 408 of the license. Rehabilitation of the flume would be necessary as well as compliance with articles 302-306 of the license.

4.0 CONSULTATION AND COMPLIANCE

4.1 Settlement Agreement Concerning the Decommissioning of the Cove Development

The licensee included with its August 16, 2005 application the Cove SA. Signatories to the Cove SA, with an effective date of July 20, 2005, include: the licensee; U.S. Fish and Wildlife Service (FWS); U.S. Bureau of Land Management (BLM); U.S. National Park Service (NPS); U.S. Forest Service (FS); Shoshone-Bannock Tribes (Tribes); Idaho Department of Environmental Quality (IDEQ); Idaho Department of Fish and Game (IDFG); Idaho Department of Parks and Recreation (IDPR); Idaho Council of Trout Unlimited (ITU); Idaho Rivers United (IRU); Greater Yellowstone Coalition (GYC); American Whitewater (AW); and other interveners who executed the Relicensing SA. The parties to the Cove SA support the licensee's proposal to decommission the Cove Development and reduce the minimum flow required in the Grace bypassed reach. These parties also support the establishment of a decommissioning fund.

4.2 Comments and Interventions

The Commission public noticed the licensee's application on October 11, 2005, with a comment period ending November 14, 2005. The following parties filed comments in response to the notice:

Includes Idaho Department of Fish and Game, Idaho Water Resource Board, Idaho Department of Environmental Quality, Idaho Department of Park and Recreation, and the Idaho State Board of Land Commissioners.

Includes comments from himself, Mr. Bud Keller, City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney. Mr. Christensen also filed on November 21, 2005, a copy of his earlier comments.

Entity	Date Filed	Motion to Intervene
State of Idaho [14]	November 10, 2005	Yes
Licensee	November 10, 2005	
Franklin County Fish and Game Association	November 11, 2005	
U.S. Department of Interior	November 14, 2005	
Mr. Stan Christensen [15]	November 15, 2005	
City of Soda Springs	November 16, 2005	
Senator Robert L. Geddes, Idaho State Senate	November 22, 2005	

In general, the State of Idaho, the licensee, and the Franklin County Fish and Game Association expressed support for decommissioning the Cove development. Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James, Caribou County Prosecuting Attorney did not. Only the State of Idaho requested a timely Motion to Intervene. In its letter

filed November 14, 2005, the Department of Interior indicated it had no comments to offer.

In comments, Mr. Christensen maintained that: (1) it is not in the public interest to eliminate the taxes paid by this facility; (2) the lack of maintenance is the primary reason for the decommissioning proposal; (3) hydropower is a clean, renewable energy resource; and (4) the license requires that the flume be rebuilt to provide continued operation of the Cove development for the remainder of the license term. Mr. Keller, in his comments, stated that he was a former employee of the licensee and that deterioration of the Cove development has been a personal concern in the past, yet no resources were provided to rebuild the flume. Mr. Keller also noted that power generation at the Cove development is an important renewable resource.

The City of Soda Springs stated that the licensee and Commission would be remiss in decommissioning a valuable, clean and environmentally friendly renewable resource at a facility that has operated efficiently and economically since 1917. The development provides a critical source of revenue for Caribou County. In support of its position, the City of Soda Springs pointed to the December 2003 license for the project, which requires the continued operation of the development.

Mr. S. Criss James (on behalf of the Caribou County Commissioners), in a letter to his U.S. Senators and Representatives, stated his desire to maintain the Cove development. Mr. James stated that the facility has been in use for many years and has provided a clean source of electricity during that time. Further, the development provides a source of revenue for Caribou County from the taxes paid by the licensee. Mr. James recommended that all options be explored to maintain the facility as part of the project because of its value to the community.

In his November 11 comments, State Senator Robert Geddes stated that the licensee is currently in negotiation to transfer its assets. Therefore, all facilities used to generate electricity should remain a part of the project. In that way, any future owner would be able to make its own decision on how best to provide the service and allocate appropriate resources with the existing rate conditions and capacities as approved by the Idaho Public Utilities Commission. Senator Geddes stated that decisions of this nature should not be made by entities desiring to leave the business, but rather all assets should be maintained in order to allow a new owner to review all company assets. A facility that has been approved for decommissioning will become a financial liability for a new operator and its existing customers. The Cove development has operated since 1917 and is part of the economic infrastructure for power generation in southeast Idaho. Lastly, Senator Geddes noted that the Commission's decision to relicense the project included the Grace-Cove development and that many benefits are realized with its continued operation.

#### 4.3 Statutory Requirements

##### 4.3.1 Water Quality Certification

Section 401(a) (1) of the Clean Water Act (CWA) and Commission regulations require that an applicant for a federal license or permit to conduct an activity that may result in a discharge into waters of the United States must provide the licensing or permitting agency with water quality certification (WQC) that the discharge would not violate water quality standards from the applicable state. The federal agency may not authorize the activity unless certification has been obtained or the state has waived certification through failure to act on the request for certification within 1 year after receipt of that request.

According to Section 8 of the Cove SA, the parties agree that a WQC would be required for decommissioning of the Cove development, but that as of the effective date of the Cove SA (July 20, 2005), a WQC had not been issued. By letter dated January 13, 2006, we informed the licensee that water quality certification was necessary and asked for documentation of a water quality certification or a waiver from the IDEQ. The IDEQ issued a certification on April 7, 2006, for the project. These conditions are summarized

below and discussed in Section 6.2 of this EA:

(1) The licensee shall develop a water quality monitoring plan to monitor turbidity, dissolved oxygen (DO), suspended sediment concentration, total phosphorus, nitrate, and ammonia that meets the following requirements. The licensee would implement the water quality monitoring plan upon approval by the IDEQ.

- \* Monitor continuously (5 minute intervals) for turbidity and DO above and below the project for the duration of the project, as well as real-time monitoring by a qualified on-site person whenever construction activities are taking place below the ordinary high water mark (in-channel activities).
- \* Concurrent with the continuous monitoring above, collect water samples each day when in-channel activities occur.
- \* Instruments used for monitoring shall be accurate within \* 5 nephelometric turbidity units (NTU) for turbidity and \* 0.2 milligrams per liter (mg/l) for DO.
- \* Monitoring shall be conducted by an independent, qualified consultant.
- \* Results shall be submitted to IDEQ within 24 hours of data collection. If, however, turbidity or DO are violated, IDEQ shall be notified on a same day basis or as soon as possible.

(2) The licensee shall obtain IDEQ approval of the water quality monitoring plan prior to commencing dam removal activities. The plan shall identify the site for monitoring, how background levels shall be established and the manner for reporting the data, as well as comply with the provisions of the WQC.

(3) The licensee shall maintain Idaho state standards of no more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days. The DO shall not be less than 6 mg/l. If deviations occur, corrective action must be taken prior to recommencing work.

(4) If IDEQ determines that monitoring results show elevated levels of phosphorus, nitrates, ammonia, or suspended sediment, IDEQ may require the licensee take appropriate action to prevent or minimize future water quality impacts.

(5) To the maximum extent practicable, sediments will be removed from the anticipated new river channel within Cove forebay prior to dam removal.

(6) Petroleum products, hazardous, toxic and/or deleterious materials shall not be stored, disposed or accumulated adjacent to or in the vicinity of state waters unless adequate measures and controls are provided to ensure those materials will not enter state waters. Vegetable-based hydraulic fluid must be used on equipment operating in or directly adjacent to the channel.

(7) This certification shall remain in effect for two years from the date of issuance.

(8) Water quality certification may be revoked for failure of the licensee to comply with the conditions of the permit and/or requirements contained herein.

The licensee clarifies that nothing in the Cove SA invalidates or modifies the previous WQC of the Bear River Projects, issued by the IDEQ on June 23, 2003, except where changes are necessary to identify any newly required minimum flows.

#### 4.3.2 Endangered Species Act

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of such species.

By letter to the licensee, dated December 1, 2005, the

Commission notified the FWS that the licensee was designated the Commission's non-federal representative for consultation in this matter. Subsequently, the licensee requested initiation of consultation with the FWS by letter dated December 28, 2005. The licensee concluded that the proposed action, may affect, but is not likely to adversely affect, listed species that may occur in the project area. By letter dated January 6, 2006, the FWS concurred with that determination. This is discussed more fully in Section 6.7 below.

#### 4.3.3. National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency take into account the effect of the proposed undertaking on any historic property. Historic properties include districts, sites, buildings, structures, traditional cultural properties and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register.

The NHPA also provides for the appointment of State Historic Preservation Officers (SHPOs) to facilitate the implementation of federal cultural resource policy at the state level, and requires the federal agency to consult with Native American tribes who attach religious or cultural importance to cultural resources under their jurisdiction.

Compliance with Section 106 is discussed in Section 6.9 of this EA.

#### 5.0 AFFECTED ENVIRONMENT

Unless otherwise noted, this information was based on the licensee's amendment application, filed with the Commission on August 16, 2005.

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#### 5.1 General Area Description

The Bear River basin encompasses 7,600 square miles of Utah, Idaho, and Wyoming. The area is mainly rural, with areas of forests, mountains, valleys and open pasture. Homes, farms, and small towns are widely dispersed throughout the area. Agriculture accounts for most water use, with surface and ground water used to irrigate over 60,000 acres of cropland.

#### 5.2 Water Quality and Quantity

Flows in the Bear River are heavily managed for irrigation and power generation. Flows entering the Grace and Cove forebays are dependent upon upstream releases from Alexander Reservoir (the reservoir for the Soda development of the Bear River Project) and in certain months, irrigation demand. Annual average inflow to the Cove forebay is approximately 658-691 cfs (1981-2004), but can vary widely due to precipitation, irrigation demand, and drought conditions. In October and November, monthly average inflow ranges from about 550-620 cfs.

Water quality in the Cove forebay is considered similar to that in the Grace forebay. Grace forebay is characterized as meso-eutrophic, with slight water temperature and dissolved oxygen (DO) stratification occurring in the summer months (FERC 2003). The bypassed reaches of the Grace and Cove developments are fed by cool springs with water temperatures ranging from 9-12°C (FERC 2003).

With respect to flows in the Grace bypassed reach, article 408 of the license requires the release of a year-round minimum flow of 80 cfs or inflow, whichever is less, in addition to current leakage from Grace Dam.

This leakage from Grace dam was determined to be approximately 2 cfs. See the Commission's order, issued on December 2, 2005 (113 FERC \* 62,167).

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Prior to license issuance, flow in the bypassed reach was limited to about 1-18 cfs in leakage and 40-70 cfs from springs below Grace Dam. In the Cove bypassed reach, article 408 requires the release of a minimum flow of 10 cfs or inflow, whichever is less, from October 1 through March 31, and 35 cfs or inflow, whichever is less, from April 1 through September 30, in addition to leakage from Cove dam.

### 5.3 Sediment

Sediment sampling completed in March 2005 at 10 sites in the Cove forebay indicated mostly shallow sediment accumulations ranging from 0.33-5.0 feet. In general, the sediment is loose, fine to medium sand. At six of the measurement sites, sediment depths were less than one foot, while sediment at three other sites measured between one and two feet deep. Sediment at one location near the east shoreline measured approximately five feet deep. Chemical testing of the samples indicated high levels of total phosphorus, ranging from 8,000 to 14,000 mg/kg (compared to a normal range of 200-5,000 mg/kg). Most total phosphorus, however, is chemically or physically bound, and not soluble or biologically active.

Cove forebay sediment was also analyzed for metals, pesticides, and polychlorinated biphenyls (PCBs). Among four samples collected, mean concentrations for mercury and selenium were 0.12 mg/kg and 2.4 mg/kg, respectively. Although three samples exceeded the Idaho Initial Default Target Levels (IIDTLs) of the Idaho Risk Evaluation Manual (IDEQ 2004) for selenium, values were comparable to other background data collected in the region. With respect to mercury, two of the four samples exceeded the IIDTL standard. However, the mean value of 0.12 mg/kg was less than the National Oceanic and Atmospheric Administration's Screening Quick Reference Tables effects range-low (Buchman 1999). Previous monitoring of surface and groundwater resources in the project area did not identify concentrations of mercury or selenium in excess of IDEQ standards. No aquatic advisories regulating fish consumption due to high selenium or mercury levels are currently recommended for the Bear River downstream of Cove forebay. No other metals, pesticides, or PCBs were found in the sediments.

Personal communication between Diana Shannon, Commission staff, and Monte Garrett, representing the licensee, on December 29, 2005.

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### 5.4 Fish and Aquatic Resources

Fish occupying the waters of the Cove development include non-native brown trout, rainbow trout, common carp, smallmouth bass, yellow perch, walleye, and mountain sucker. Native fishes that may occur in the project area include the Bonneville cutthroat trout (BCT), mountain white fish, Utah sucker, redbase shiner, mottled sculpin, and Paiute sculpin. The Cove forebay, approximately 10 acres at full pool, supports a fishery that is composed primarily of carp and Utah sucker (FERC 2003).

The Grace bypassed reach (Black Canyon) is a segment of the Bear River that extends 6.0 miles from Grace dam to the Grace powerhouse (FERC 2003). The game fish community of the Grace bypass consists mainly of adult and juvenile rainbow trout that are either stocked by IDFG or released by the Black Canyon Trout Farm (FERC 2003). Most of these fish are located in the lower half of the reach, in the vicinity of springs that feed the reach (FERC 2003).

The BCT, although not listed under ESA, is considered a species of special concern by the State of Idaho. The distribution of BCT in the state of Idaho is limited to the Bear River drainage, and occurs mainly in tributaries of the Bear River upstream of Soda dam and in Bear Lake. Studies conducted by the licensee have not identified BCT in the Cove Development area. However, seasonal occurrence may occur in the Grace and Cove bypassed reaches.

Establishment of the 80 cfs minimum flow in the Grace bypassed reach was based on two instream flow studies that evaluated the relationship between flow and fish habitat in the Grace bypassed reach (FERC 2003). The habitat, as represented by weighted useable area (WUA), that is available to each life stage and species of trout in the Grace bypassed reach is shown in Table 1. Flows shown in the left column of each table represent flows entering the upper end of each reach, which consist of leakage and spill flows. Habitat values shown for each release flow represent the total habitat per 1,000 feet of stream, and account for accretion of groundwater from springs within each reach (FERC 2003).

Table 1. Total WUA (square feet/1,000 feet of stream) versus flow in the Grace bypassed reach for rainbow/cutthroat trout, brown trout, and trout fry (Source: FEIS, dated April 2003).

fry	Flow	Rainbow/Cutthroat trout		Brown trout		Trout	
	(cfs)						
	-						
		Spawning	Juvenile	Adult	Spawning	Juvenile	Adult
		Summer	Winter				
14,305	55 7,307	29,874	67,852	421	45,042	30,374	2,358
13,764	60 7,470	26,874	67,751	921	43,772	29,636	2,358
13,439	65 7,145	25,607	66,397	948	42,736	26,874	2,358
13,740	751 8,420	25,146	63,922	1,298	40,337	25,646	2,404

1The licensee did not model habitat for flows over 75 cfs, but it is likely that habitat conditions with an 80 cfs minimum flow release would be similar to those that were predicted by the model for a 75 cfs flow release.

5.5 Riparian and Wetland Resources

Along the Bear River, riparian vegetation is primarily limited to a narrow fringe (10-20 feet) along the river channel. If groundwater seepage is occurring along the bank, the area of riparian vegetation is wider, up to 50 feet. In the bypassed reach below Cove dam, wider riparian wetlands areas associated with groundwater seeps occur along the east side of the river, while the west side of the river typically has a narrow fringe of wetlands. Wetlands found in the Cove development are primarily palustrine emergent, although palustrine scrub-shrub wetlands also occur.

Kackley Springs is a group of springs that discharge water on a flat bench at the base of a lava bluff east of the Cove forebay. An emergent wetland dominated by cattails, brookgrass, and sedges is maintained by water from these springs. Most of the water discharged from Kackley Springs flows into the forebay via a poorly defined channel.

Two cattail-dominated wetlands occur south of the Cove dam and west of the forebay. The wetland west of the forebay is located on a bench above the forebay elevation and appears to be supported by groundwater discharge. The east side of the community extends down to the forebay, creating a limnetic fringe wetland. The wetland south of the dam is also located on a bench and appears to be supported by groundwater discharge.

Additional emergent wetlands occur along the Cove flume. Some of the areas are supported by water leaking from the flume and are dominated by redtop. Other wetlands are fed by ground or surface water and are more developed with Nebraska sedge, brewer bittercress, fowl bluegrass, water speedwell, cattail, and spikerush being the dominate species.

#### 5.6 Wildlife Resources

The licensee conducted waterfowl surveys in 1997 to document the various species that inhabit the Grace and Cove developments. Fourteen species of birds were identified during these surveys and include Western kingbird, Canada geese, mallards, Black-billed magpie, black-capped chickadee, American robin, cedar waxwing, spotted towhee, Townsend's solitaire, killdeer, spotted sandpiper, and several species of swallows and warblers.

Two nesting pairs of Canada geese were recorded along the west shore of Cove forebay. An additional goose pair and nest were observed below the Cove powerhouse. All of these nest sites were found in predominantly grass/shrub thickets, above the high-water mark. In 2005, an active goose nest was found in sagebrush to the south of the Cove dam, a goose pair was observed on Cove forebay, and two other pairs were observed in pastures on the west side of the Cove bypassed reach. Mallards were also observed nesting throughout the area in 2005.

#### 5.7 Threatened and Endangered Species

According to the licensee's amendment application, the FWS has documented the presence of bald eagles (*Haliaeetus leucocephalus*), the possible occurrence of gray wolf (*Canis lupis*) and one listed plant species, Ute ladies' tresses (*Spiranthes diluvialis*) in Caribou County, Idaho. As discussed in the Commission's FEIS on relicensing the project (FERC 2003), other species that may be found in the project area may include the threatened Canada lynx, and the candidate yellow-billed cuckoo.

Bald eagles have been sighted near the Soda development, but the presence of the other listed (or candidate) species in the project area may be more transient in nature. There are no known observations of Ute ladies' tresses in the Bear River drainage (FERC 2003).

#### 5.8 Recreation and Land Uses

Whitewater boating occurs through the Black Canyon section of the Grace bypassed reach. Optimum flow level required for whitewater boating in this reach depends on skill level and experience, but averages around 1,000 cfs. Article 419 of the license requires the release of whitewater boating flows and provides a schedule for release of those flows. Boating in this reach is not possible at the required minimum flow (i.e., 80 cfs). No boating flows are required in the Cove bypassed reach. This stretch of river is primarily flat water and no recreational boating has been observed since the Cove development went off-line in 2002.

No developed recreation sites exist within the Grace-Cove Project boundary. Two semi-formal recreation sites provide boater and angler access to the Grace bypassed reach (FERC 2003). A put-in area immediately downstream of Grace dam provides boater access to the Black Canyon Run. A parking area, approximately 0.5 miles upstream of the Grace powerhouse provides access to the lower reach and serves as a take-out for the run.

Aside from boating, the Grace and Cove developments are used by anglers for fishing. Shoreline fishing occurs below the Black Canyon reach, below the Grace and Cove powerhouses and at the Cove forebay. The primary species targeted by anglers include trout, smallmouth bass, and walleye. Private land restricts public access.

Livestock grazing occurs on a large percentage of licensee land and adjacent private and BLM lands. The Cove flume currently restricts most livestock from grazing in the riparian areas along the Cove bypassed reach.

#### 5.9 Cultural Resources



Many of the structures associated with the Cove development are considered to collectively contribute to the eligibility of a Grace-Cove complex for listing on the National Register of Historic Places. These structures include the Cove dam, flume, powerhouse, and associated employees' facilities. These structures were constructed in 1917 and are located within an area of ancestral tribal land important to the Shoshone-Bannock Tribes, a party to the relicensing SA and to the Cove SA.

No paleontological or prehistoric sites are known to occur in the Cove development area, although several prehistoric sites are known to occur at other developments of the project (FERC 2003). Lands important to the Shoeshone-Bannock tribes are in the general project area although none have been identified in the Cove development.

## 6.0 ENVIRONMENTAL IMPACTS

### 6.1 Proposed Action

The licensee proposes to decommission the Cove development and reduce the minimum flow required in the Grace development bypassed reach. Significant construction and demolition of facilities will take place within the stream channel or adjacent to it. The following sections describe the potential for impacts on the various environmental resources associated with this proposal.

### 6.2 Water Quality and Quantity

Temporary adverse impacts to water quality may result from construction activities related to removal of the dam, flume, and other facilities, and as a result of the operation of heavy equipment in and near the streambed. The licensee proposes to dewater the forebay in stages and use standard erosion control measures to prevent the release of sediment into the Bear River. The IDEQ included several conditions as part of the 401 WQC, dated April 7, 2006, to reduce or limit the effects of project construction on sedimentation and stream turbidity. Among them, the licensee will remove sediments from the forebay prior to dam removal.

In addition, the licensee will develop a comprehensive water quality monitoring plan in consultation with the IDEQ that would include continuous monitoring of turbidity and DO in the construction area. In the event of deviations from state standards, the licensee would consult with the IDEQ. Development of a water quality monitoring plan, as well as adoption of other measures of the water quality certificate would minimize the magnitude and extent of any potential adverse impacts to water quality downstream of the Cove development.

Under the licensee's proposal, natural flow would be restored in the Cove bypassed reach upon removal of the Cove dam and other facilities. Total flow in this reach would be a combination of flows from the Grace flowline, the Grace bypassed reach, Kackley Springs (5-8 cfs), and the three major springs in the Cove bypassed reach (4-24 cfs). Based on information contained in the licensee's application, flows would approximate 400-900 cfs, but could vary widely within and among years. After equilibrium is reached upon completion of construction, only beneficial impacts are expected from natural flow being restored in this reach.

A permanent reduction in the required flow, from 80 to 63 cfs, would occur in the Grace bypassed reach. Although greater than what was historically released in this reach, it is difficult to predict what, if any, impacts might occur from this flow reduction. The currently mandated 80 cfs or inflow, whichever is less, was instituted in 2003 when the new license was issued for the project. In the Commission's FEIS, staff speculated that this increase in flow would result in increased summer water temperatures in portions of the bypassed reaches where spring flow dominates, i.e., the lower half of the reach (FERC 2003). In the upper half of the reach, increased flow may result in lower water temperatures by reducing the effects of solar radiation. These two effects, increasing water temperature in the lower reach and reducing temperature in the upper reach, would likely be lessened by reducing the minimum flow to 63 cfs or inflow. Data included with the licensee's application indicates all monthly average flows from 1981-2004 exceed 63 cfs

and generally exceed 80 cfs. Specific impacts to aquatic habitat resulting from this reduction are discussed more fully in Section 6.4 below.

### 6.3 Sediment

With the ground disturbing activities associated with the licensee's proposal, an increase in downstream sediment loading is expected, affecting substrates and fish habitat primarily in the reach closest to the dam. The licensee estimates up to 3,600 cubic yards of sediment material may be transported downstream. The extent and duration of the increased sedimentation is unknown, however, and will likely occur during initial formation of the new river channel (i.e., during and immediately following dewatering of the forebay) and over a longer period from new channel banks and upslope areas.

Given that the total phosphorus is bound, and mercury and selenium levels are similar to background levels reported elsewhere, no adverse impacts from total phosphorus, selenium, or mercury adsorbed to sediment particles are expected.

To minimize the potential for any sediment releases, the licensee proposes staged releases during dewatering of the forebay and scheduling the drawdown during a low flow period (October-November). Removal of forebay sediments prior to dam removal, as required by the WQC should also minimize sediment transport. Standard erosion control measures would be used and all necessary permits would be obtained prior to construction. As discussed above, water quality would be monitored throughout the construction period as required by the WQC. In the event that water quality does not meet state standards, immediate consultation with IDEQ is planned. With these provisions, only temporary adverse impacts to water quality are expected. Any realized impacts would be minimized through timely consultation with IDEQ.

### 6.4 Fish and Aquatic Resources

Under the licensee's proposal, natural flow would be restored to the Cove bypassed reach. Removal of the Cove facilities would also restore connectivity in the river and fish movement throughout the reach. Upon completion of construction and an established equilibrium of the aquatic system, only beneficial effects are expected in the Cove bypassed reach.

In the Grace bypassed reach, flows would be reduced from the required 80 cfs, or natural inflow, to 63 cfs, or natural inflow (plus leakage). Based on previous studies and the information contained in Table 2, this reduction in flow would increase the amount of habitat, as measured in weighted usable area (WUA), that is available to rainbow/cutthroat and brown trout juveniles and adults, while decreasing the WUA for spawning for rainbow/cutthroat trout. The changes in WUA for spawning brown trout and for trout fry, both winter and summer, are less discernible (Table 2). In its proposal, the licensee notes that the proposed minimum flow release of 63 cfs is much greater than the historical record when no minimum flow requirement was mandated in the reach.

We find the proposed reduction in flow may increase the WUA for certain life stages of trout in the project area, while decreasing the WUA for others. Little information is known regarding the fish populations of the Grace bypassed reach with the currently maintained 80 cfs. We expect the proposed flow reduction would not significantly impact aquatic resources.

As discussed in section 5.4, the occurrence of BCT in the Grace or Cove bypassed reaches is likely seasonal in nature. The BCT are more known to occur in tributaries of the Bear River upstream of Soda dam and in Bear Lake. Therefore, adverse impacts to BCT are not expected from the proposed action.

### 6.5 Riparian and Wetland Resources

Overall, about 2.5 acres of wetlands lie within the area of potential disturbance. Of these, about 0.9 acres lie along the flume. The remainder is primarily associated with the fringe of wetland west of the forebay. The two main wetland areas associated with the Cove forebay do not lie in the zone of disturbance and would not be impacted by construction activities.

Only the vegetation lying along the drainage channel of the wetland to the west of the forebay would be adversely impacted. Since the main wetland associated with this fringe is fed by groundwater and would not be altered during construction, we expect this fringe wetland to reestablish after construction activities are complete. Once the Cove dam is removed, restoration of natural river flow in the area of the forebay may also lead to the establishment of riparian vegetation along the 1,600 feet of newly developed river channel.

The licensee plans to protect existing wetlands along the flume and ensure that nothing is buried within wetland or drainable features. The licensee proposes to identify wetland areas along the flume and use silt fencing to prevent debris from entering them. The riparian areas along the bypassed reach, would benefit from removal of the dam and restoration of natural flow.

In sum, we expect adverse impacts to the fringe wetland to the west of the forebay. Since it is fed by groundwater, we expect this wetland to reestablish after construction and grading (regrading to natural contour) in the area is complete. We expect wetlands along the flume to be adversely impacted as well. Those supported by leakage from the flume (and not jurisdictional) will likely be eliminated. Those wetlands supported by ground or surface water from other sources will likely reestablish after grading is complete.

The licensee's proposed measures described above should prevent the inadvertent destruction or filling of wetlands in the area, thereby minimizing adverse impacts to wetlands during construction.

#### 6.6 Wildlife Resources

The habitat surrounding Cove forebay and other areas that may be used by birds and waterfowl would be disturbed during construction activities. These impacts would be temporary, and after construction is complete and vegetation reestablished, a portion of this habitat would be restored.

The open water of the Cove forebay would be eliminated and replaced with riverine habitat. This would likely result in a decrease in birds and waterfowl using the Cove forebay area during spring and fall migration. Given the small size of Cove forebay (about 10 acres) and the other larger bodies of water near it (such as the Grace forebay, Alexander Reservoir, and Oneida Reservoir), birds may move to these other open water habitats and stay in the general vicinity of the project. We believe the impacts to migratory birds and waterfowl resulting from the licensee's proposal would likely be minor.

#### 6.7 Threatened and Endangered Species

As summarized in section 5.7 of this EA, listed species are generally not found in the Cove development area. Species that may be present include the bald eagle, and the gray wolf. Bald eagles have been documented at the Soda development, but not at the Cove development. The gray wolf may travel through the area, but no established packs have been documented in the lower Bear River basin. By letter dated December 28, 2005, the licensee (the Commission's non-federal representative for ESA consultation) requested concurrence from the FWS that the proposed decommissioning (and associated reduction in flow in the Grace bypassed reach) may affect, but is not likely to adversely affect listed species. By letter dated January 6, 2006, the FWS concurred with that determination. We consider consultation under section 7 of the ESA complete.

In its January 6 letter, the FWS requested to be contacted to verify this determination is still valid if: (1) project parameters are changed or new information reveals effects of the action to a listed species to an extent not considered in the Assessment; or (2) a new species is listed or critical habitat is designated that may be affected by the project.

#### 6.8 Recreation and Land Uses

The whitewater boating flows maintained in the Black Canyon section of the Grace bypassed reach are released pursuant to the requirements of article 419 of the license. The licensee has not

proposed to change those requirements, therefore, no impacts to recreational boating in the Grace bypassed reach are anticipated. Since boating is not possible at the required flow (80 cfs), the proposed reduction in flow to 63 cfs, would have no impact on boating.

Little, if any boating occurs in the Cove bypassed reach. With a return to more natural flows and removal of the Cove dam, recreational boating in this reach may be more desirable. However, little is known regarding the interest for boating this flatwater reach.

Recreational fishing opportunities in the Cove development may be temporarily suspended during construction activities. Elimination of the Cove forebay would permanently eliminate the openwater fishing; however, access to the forebay has limited its use for this type of fishing in the past. Riverine habitat would replace it. Overall, the impacts to recreational fishing are likely beneficial.

Regarding livestock grazing, the only impact on livestock grazing would be removal of the Cove flume. This would allow cattle access to the river and its associated riparian habitat. Construction of the fence along the flume right-of-way, as required by article 426 of the license, would eliminate this potential negative impact.

This measure is part of the licensee's buffer zone plan required by article 426 of the license. This plan was developed in consultation with the ECC and filed with the Commission on February 2, 2005. The licensee's plan was approved on April 11, 2006 (see 115 FERC \* 62,044).

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## 6.9 Cultural Resources

Many of the structures planned for removal are contributing elements to the eligibility of the Grace-Cove complex for listing on the National Register of Historic Places. Their removal would result in a significant adverse impact to these resources and to the historical integrity of the surrounding community. Archaeological sites that have been determined to be eligible for listing on the National Register of Historic Places that are near the Cove development could potentially be adversely affected by the proposed decommissioning activities as well.

A Historic Properties Management Plan (HPMP), developed pursuant to article 423 of the license and filed by the licensee on March 30, 2005, is currently under review by Commission staff. The development of the HPMP was required by the Programmatic Agreement (PA), executed on February 25, 2003, which was made part of the license for the project pursuant to article 423. As outlined in the PA, if the HPMP is not acted upon by the Commission, as is the case here, the licensee is required to develop a Memorandum of Agreement (MOA), for the determination of effect and the protection of historic properties.

The licensee filed on April 28, 2006, an MOA on the decommissioning of the Cove hydroelectric Project, dated April 24, 2006, which was signed by the licensee and the SHPO.

The signature page for the SHPO was provided separately on May 1, 2006.

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Provisions of the MOA include recording the structures to the Level II standards of the National Park Service's Historical American Engineering Record (HAER). Such documentation would include written data, large-format photography, and copies of available engineering and/or architectural drawings. In addition, the licensee proposes to preserve the Cove powerhouse and implement a public interpretation program. The specifics of the program would be determined in consultation with the SHPO and the Grace City Council.

In addition and as discussed in the licensee's draft HPMP, the licensee proposes to provide cultural resources sensitivity training to all decommissioning personnel; enforcement of discovery protocols of the draft HPMP; and placement of protective barriers around all known sites.

Since construction activities are planned near lands important to the Shoshone-Bannock Tribes, some unidentified culturally and/or historically significant resources (including human remains) may be disturbed. If previously unknown resources are revealed, the MOA includes certain protocols to follow to protect these resources. In general, these protocols would require all work to stop and the appropriate entity (BLM, SHPO, and/or Shoshone-Bannock Tribes) notified of the discovery. Once the agreed upon treatment of discovery has been completed (i.e., all requirements of mitigation have been met), and agreement with the consulting party is reached, work in the vicinity of the discovery may proceed. A report would then be prepared regarding the discovery and submitted to the SHPO, BLM, and/or the Shoshone-Bannock Tribe, as appropriate.

By letter dated March 17, 2006, we asked the Advisory Council on Historic Preservation if it intends to participate. No comments were received. By letter dated May 2, 2006, we provided the Advisory Council with a copy of the executed MOA. With implementation of the measures outlined in the MOA and adoption of the additional measures contained in the draft HPMP, we consider consultation under section 106 of the Historic Preservation Act complete.

#### 6.10 Secondary and Cumulative Impacts

Secondary impacts are those that are indirectly caused by or result from an activity, and are reasonably foreseeable. They may occur later in time than the activity and be removed in terms of distance. According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act, an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions. Based on the licensee's application, staff has determined that decommissioning of the Cove development would not cumulatively affect any resources.

The licensee identified two socio-economic issues that may be affected by decommissioning which we consider to be secondary impacts. These issues are employment and property taxes. Currently, the licensee employs approximately 15 individuals to maintain and operate the Bear River Project as a whole. No staffing positions are specific to operation of the Cove development. Although we expect that decommissioning of the Cove development may temporarily result in an increase in short-term employment opportunities, we anticipate a reduction in the workload associated with the 15 current positions. Even with continued maintenance at the Cove development after decommissioning (i.e., weed control, safety checks, and general maintenance), the licensee anticipates that removal of the Cove development may reduce the need for up to one long-term employment position. We consider this impact on employment in the project vicinity to be minor.

In terms of property taxes, the licensee states that with the conversion from a generation facility, it is uncertain how decommissioning would affect property taxes paid to Caribou County, but it is expected that any change would not be significant. Several commenters expressed concern over taxes as well.

These commenters include Mr. Stan Christensen, Mr. Bud Keller, the City of Soda Springs, and Mr. S. Criss James.  
[21]

According to the licensee, if the Cove development were decommissioned, it would no longer be considered a generation facility and therefore would not factor into the centrally assessed system of valuating pooled facilities. Rather, it would be taxed according to Caribou County's assessment of property values. While we acknowledge the loss of generation at the Cove development, we agree with the licensee that it is difficult to predict the impact, if any, on property taxes paid to Caribou County. We also cannot require the licensee to continue to operate a development it no longer wishes to maintain, in the interest of maintaining certain taxes paid by the licensee.

Likewise, we acknowledge that generation at the Cove development is a clean, renewable, and valuable energy source, as several commenters noted. The licensee's proposal to

decommission the Cove development is based on an interest among many parties and will result in a number of benefits to various resources in the area. While some object to the elimination of generation derived from a renewable resource, or object to decommissioning because the project may be sold at some point in the near future,

See Senator Geddes' comments filed November 22, 2005.

[22]

we cannot require the licensee to continue to generate for these reasons.

## 7.0 ACTION AND NO-ACTION ALTERNATIVES

### 7.1 Grace-Cove Interconnect Canal

Under this alternative, water would be delivered directly from the Grace tailrace to the Cove intake via a newly constructed canal. A 4-foot-high rock-filled weir across the Bear River, just upstream of the Grace tailrace, would be constructed to allow maximum generation at the Cove powerhouse. Flow releases would not be altered in the bypassed reaches.

Cove dam would be removed and the Cove flume would be repaired, but other historically significant features of the development would remain intact and operating. The potential for sediment releases related to construction of the canal, diversion weir, and removal of Cove dam would be similar to that expected under the proposed alternative, as well as impacts to wetlands surrounding the forebay. Temporary and minor impacts to fish and wildlife resources and recreation resources would be similar to that expected from the proposed action.

### 7.2 Fish Passage Alternative

Under this alternative, a vertical-slot fish ladder would be constructed at the Cove dam. A ladder is currently present but is inoperable and would be removed. The intake to the Cove powerhouse would be screened and tailrace barriers would be constructed at both the Grace and Cove developments. The Cove flume would be repaired. Historical features of the Cove development would remain intact and operating, although repair work and the associated modifications (i.e., related to the addition of a fish ladder, tailrace barriers and the like) would alter some of the facilities.

Since construction activities associated with this proposal are more limited in nature than either the proposed action or the Grace-Cove Interconnect Canal described above, potential impacts to water quality associated with sediment releases would be reduced significantly. Wetlands in the area would remain untouched and fish passage would be provided around Cove dam, a benefit to fish resources. Fish screens and tailrace barriers would further protect fish in the area from project-related impacts. However, delays in passage may occur and/or contact with the screens may cause some injury. Since Cove forebay would remain, no impacts to birds inhabiting the area are expected. Recreation and wildlife resources would not be impacted.

### 7.3 No-Action Alternative

Under the No-Action Alternative, the Cove development would remain part of the Bear River Project. Rehabilitation of the flume and other facilities would ultimately be necessary. Flows in the Grace bypassed reach would remain at 80 cfs, or natural inflow, whichever is less. Temporary impacts to water quality may occur during flume rehabilitation. In addition, adverse impacts to the wetlands fed by leakage from the flume are expected. No long-term impacts to wetlands associated with the forebay, fish and aquatic resources, recreation, or wildlife resources are expected from the No-Action Alternative.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

We have evaluated the environmental effects of the Proposed Action, Action Alternatives, and the No-Action Alternative. Significant construction activities are involved with the proposed action and the Grace-Cove Interconnect Canal, and to a lesser degree with the Fish Passage alternative and the No-Action Alternative. We recommend the proposed action as the preferred alternative for the following reasons: (1) temporary adverse

impacts on aquatic and wildlife resources would be minimized by measures implemented by the licensee; (2) most wetlands fed by groundwater impacted by construction should reestablish; and (3) all federal, state, and local permits would be obtained prior to construction.

With the preferred alternative, temporary adverse impacts are expected on water quality, birds, and wetlands during construction. Provisions of the WQC should minimize impacts to water quality during construction and ensure that in the event state standards are not met, timely consultation with the IDEQ occurs. We are adopting the WQC and its provisions will be attached to the order. No impacts are expected from the proposed action in terms of chemicals adsorbed to the sediments, BCT, or recreational boating in the Grace bypassed reach (Black Canyon).

The permanent adverse impact on historic properties associated with the preferred alternative is significant. To mitigate for these impacts, we recommend the licensee implement the MOA on the decommissioning of the Cove Hydroelectric Project, dated April 24, 2006, that would require documentation of all properties to Level II standards of HAER (including written data, photographs, and copies of detailed design drawings) and develop an interpretative program in consultation with the SHPO and the Grace City Council, as well as other measures designed to protect remaining properties. We also recommend the licensee provide cultural resources sensitivity training for all decommissioning personnel and place protective barriers around known archaeological sites in the Cove development area.

In terms of listed species under ESA, we do not expect any listed species to be impacted by the licensee's proposal. As discussed in Section 6.7, the FWS recommended it be consulted with in the event that: (1) project parameters are changed or new information reveals effects of the action to a listed species to an extent not considered previously; or (2) a new species is listed or critical habitat is designated that may be affected by the proposal. The licensee is reminded that if the above conditions occur, the licensee should consult with the FWS.

The licensee and other members of the ECC have developed the Cove SA which, in their view, defines the licensee's obligations regarding decommissioning. We consider most of the measures included in the Cove SA appropriate and adequate. These measures include, but are not limited to obtaining all necessary permits prior to construction; using accepted standard erosion control techniques; and properly identifying all existing wetlands in the area and protect them from fill using silt fencing and/or other appropriate means. With approval of the licensee's application, these measures would be required.

We recommend that article 408 be amended accordingly, i.e., reducing the required minimum flow in the Grace bypassed reach to 63 cfs, plus leakage, and eliminating the reference to a minimum flow in the Cove bypassed reach.

Lastly, we discuss the proposed article that stipulates the agreed upon funding provisions of decommissioning, described fully in Section 3.1 of this EA. In general, this article would require the licensee to provide money to the ECC, in the event that decommissioning costs are less than \$2.5 million net present value (in 2005 dollars). In the licensee's application, no detail was given as to how the monies would be spent or how such expenditures would relate to project-related impacts. Rather than the establishment of a general fund such as this one, the Commission prefers to require specific measures to resolve specific project-related impacts. Therefore, we do not recommend adoption of this measure. The parties to the Cove SA and members of the ECC are free to develop such a fund, but we are not recommending adoption of this measure as a Commission requirement.

#### 9.0 FINDING OF NO SIGNIFICANT IMPACT

This environmental assessment was prepared pursuant to the National Environmental Policy Act of 1969. Approval of the proposed action, the preferred alternative, would not be a major federal action significantly affecting the quality of the human environment.

#### 10.0 LITERATURE CITED

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Federal Energy Regulatory Commission (FERC). 2003. Final Environmental Impact Statement for Relicensing the Soda Project, Grace-Cove Project, and Oneida Project. April 2003.

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10.0 PREPARER

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Footnotes



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