Billing Code 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 14367-001]

Don W. Gilbert Hydro Power, LLC: Notice of Availability of Environmental Assessment

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's (Commission) regulations, 18 CFR part 380 (Order No. 486, 52 FR 47897), the Office of Energy Projects has reviewed the application for an original license to construct the Gilbert Hydroelectric Project, located on several unnamed springs near the Bear River in Caribou County, Idaho, and has prepared an environmental assessment (EA) for the project. The project would not occupy any federal lands.

The EA includes staff's analysis of the potential environmental impacts of the project and concludes that licensing the project, with appropriate environmental protective measures, would not constitute a major federal action that would significantly affect the quality of the human environment.

A copy of the EA is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website at http://www.ferc.gov using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at FERCOnlineSupport@ferc.gov, or toll-free at 1-866-208-3676, or for TTY, (202) 502-8659.

You may also register online at http://www.ferc.gov/docs-filing/esubscription.asp to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

Any comments should be filed within 30 days from the date of this notice. Comments may be filed electronically via the Internet. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's website http://www.ferc.gov/docs-filing/efiling.asp. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at http://www.ferc.gov/docs-filing/ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, mail an original and five copies to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

For further information, contact Kelly Wolcott at (202) 502-6480.

Dated: August 15, 2013.

Kimberly D. Bose,

Secretary.

ENVIRONMENTAL ASSESSMENT

FOR HYDROPOWER LICENSE

Gilbert Hydroelectric Project

FERC Project No. 14367-001

Idaho

Federal Energy Regulatory Commission

Office of Energy Projects

Division of Hydropower Licensing

888 First Street, NE

Washington, D.C. 20426

August 2013

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ACRONYMS AND ABBREVIATIONS

APLIC	Avian Power Line Interaction Committee
applicant	Don W. Gilbert Hydro Power, LLC
certification	water quality certification
CFR	Code of Federal Regulations
cfs	cubic feet per second
Commission	Federal Energy Regulatory Commission
CWA	Clean Water Act
EA	environmental assessment
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FWS	U.S. Department of the Interior, Fish and Wildlife Service
Idaho DEQ	Idaho Department of Environmental Quality
Idaho DFG	Idaho Department of Fish and Game
Idaho SHPO	Idaho State Historic Preservation Office
Interior	U.S. Department of the Interior
Gilbert Project	Gilbert Hydroelectric Project
Gilbert Hydro	Don W. Gilbert Hydro Power, LLC
kW	kilowatt

MW	megawatt
MWh	megawatt-hour
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NHPA	National Historic Preservation Act
project	Gilbert Hydroelectric Project
WECC	Western Electric Coordinating Council

EXECUTIVE SUMMARY

Proposed Action

On May 30, 2012, Don W. Gilbert Hydro Power, LLC (Gilbert Hydro or applicant) filed an application for an original license to construct and operate its proposed Gilbert Hydroelectric Project (project). The project would have an installed capacity of 90 kilowatts (kW) and would utilize the flow from several unnamed springs that converge into an unnamed channel that is a tributary to the Bear River. The project would be located eight miles southwest of the City of Grace, in Caribou County, Idaho. The project would not occupy any federal lands.

Proposed Project Description

The project would consist of the following new facilities: (1) an 8-foot-long, 3-foot-wide, 3-foot-deep drop inlet structure; (2) a 2-foot-diameter, 700-foot-long primarily above-ground steel or plastic penstock; (3) a powerhouse containing two 45- kW reaction turbine/generator units for a total installed capacity of 90 kW; (4) an approximately 25-foot-long tailrace to convey flows from the powerhouse to the existing stream channel that flows into the Bear River; (5) a 150-foot-long, 480-volt transmission line; and (6) appurtenant facilities. The project would divert up to 18 cubic feet per second to the project and generate an average of 550 megawatt-hours annually.

Proposed Environmental Measures

Project Design and Operation Features

- Operate in a run-of-river mode to maintain natural flows downstream of the project for the protection of aquatic resources;
- Design and construct the project transmission line in accordance with the most current raptor protection standards recommended by the U.S. Fish and Wildlife Service (FWS);
- Design the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area.

During construction

- Implement industry-standard erosion control measures to minimize erosion and sedimentation;
- Stop construction immediately in the event of an inadvertent discovery of cultural resources or human remains, and contact the Idaho SHPO and the Shoshone-Bannock Tribes for guidance before continuing project construction or other project-related activity.

During project operation

- Implement a Revegetation Plan that includes: (1) streambank improvement to enhance habitat downstream of the powerhouse; (2) revegetation of areas

disturbed during construction with crested wheatgrass in the upland areas and Timothy grass or, if available, deep-rooted plants such as sedges and rushes in the wetland areas to enhance vegetation, forage for livestock and wildlife, and wildlife habitat; and (3) use of certified weed-free seeds and cleaning of all equipment prior to entry into the construction site to prevent the establishment of noxious weeds.

Alternatives Considered

This environmental assessment (EA) considers the following alternatives: (1) Gilbert Hydro's proposal, as outlined above; (2) Gilbert Hydro's proposal with staff modifications (staff alternative); and (3) no action, meaning the project would not be built.

Staff Alternative

Under the staff alternative, the project would be constructed, operated, and maintained as proposed by Gilbert Hydro with the modifications and additions described below. Our recommended modifications and additional environmental measures include, or are based on, recommendations made by state agencies that have an interest in resources that may be affected by the proposed project.

Under the staff alternative, the project would include most of Gilbert Hydro's proposed measures, as outlined above, with the exception of the streambank improvement program proposed as part of the Revegetation Plan. We do not recommend this measure because the streambank improvement would be implemented downstream of the project and the run-of-river operation would ensure that there would be no project-related effects on downstream aquatic and riparian resources and therefore this measure does not have a sufficient nexus to project effects.

The staff alternative includes the following staff modifications and additional measures:

- An Erosion and Sediment Control Plan that includes site-specific measures;
- Modification of the Revegetation Plan to include the use of native sedges and rushes during replanting of disturbed wetland areas, instead of Timothy grass as proposed;
- Developing the final transmission line design, in consultation with the FWS, to adhere to the most current Avian Power Line Interaction Committee (APLIC) standards;
- Notify the Commission, in addition to the Idaho SPHO and Shoshone-Bannock Tribes, and develop measures in consultation with the Idaho SHPO and the Shoshone-Bannock Tribes if previously unidentified archeological or historic properties are discovered; and

- In addition to finishing the powerhouse in a color that blends in with the rural character of the area, avoid reflective materials and highly-contrasting colors in both the penstock and powerhouse to reduce their visibility from surrounding properties and public roads.

No Action Alternative

Under the no-action alternative, the project would not be built, environmental resources in the project area would not be affected, and the renewable energy that would be produced by the project would not be developed.

Public Involvement and Areas of Concern

Before filing its license application, Gilbert Hydro conducted pre-filing consultation under the traditional licensing process. The intent of the Commission's pre-filing process is to initiate public involvement early in the project planning process and to encourage citizens, governmental entities, tribes, and other interested parties to identify and resolve issues prior to an application being formally filed with the Commission.

After Gilbert Hydro filed its application, the Commission issued a public notice on October 17, 2012, of its intent to waive scoping, stating the application was ready for environmental analysis, and requesting comments, terms and conditions, and

recommendations. The notice also stated our intention to waive additional study requests and three-stage consultation.

Staff received comments and recommendations from the State of Idaho on behalf of Idaho Department of Environmental Quality, Idaho Department of Fish and Game (Idaho DFG), Idaho Water Resource Board, and Idaho State Board of Land Commissioners. We also received a letter from the U.S. Department of the Interior, noting that it received and reviewed the license application and had no comments to offer.

The primary issues associated with licensing the project are erosion and sedimentation control, native plant restoration, noxious weed control, raptor protection, and aesthetic resource protection.

Staff Alternative

Geology and Soils Resources

Project construction would temporarily increase soil erosion during vegetation clearing and excavation for the drop inlet structure, penstock, powerhouse, and transmission line. Implementing staff's recommended Erosion and Sediment Control Plan, which would include industry-standard erosion and sediment control measures as proposed by Gilbert Hydro but with site-specific measures, would minimize project

effects on soil erosion. Operating the project in a run-of-river mode as proposed by Gilbert Hydro would minimize streambank erosion.

Aquatic Resources

Constructing the drop inlet structure, penstock, and powerhouse as well as initial project operation would temporarily increase sedimentation and turbidity in project waters. However, adverse effects would be minimized through the staff- recommended Erosion and Sediment Control Plan.

Gilbert Hydro's proposed run-of-river operation would ensure that natural flows in the channel below the powerhouse for the protection of aquatic resources. Run-of-river operation would also minimize the potential for any adverse effects on water quality.

Terrestrial Resources

Constructing the project would temporarily disturb 0.5 acre of vegetation and about 0.1 acre of vegetation would be permanently lost. Gilbert Hydro's proposed Revegetation Plan would enhance the recovery of native vegetation in upland areas, and minimize the establishment of noxious weeds. Using native sedges and rushes to replant disturbed wetland areas, instead of Timothy grass, would assist in the recovery of native plant species that are beneficial to wildlife by providing forage and habitat.

Gilbert Hydro's proposal to design and construct the project transmission line in accordance with the most current raptor protection standards recommended by the FWS

would minimize adverse interactions between the project's transmission line and raptors. Designing the transmission line in consultation with FWS and adhering to APLIC standards would ensure adequate protection.

Threatened and Endangered Species

No federally listed endangered or threatened species are known to occur in the project area; therefore, the project would have no effect on federally listed species.

Aesthetic Resources

Project facilities would be visible over a wide area because of sloping topography and low-growing vegetation. Gilbert Hydro's proposal to construct a small powerhouse, similar in appearance to nearby buildings, with a color that blends with the rural character of the area would reduce visual effects. Avoiding reflective materials and highly-contrasting colors for both the penstock and powerhouse would reduce their visibility and help maintain the existing character of the landscape.

Cultural Resources

No cultural resources eligible for or included in the National Register of Historic Places are known to exist in the project area. Therefore, the project would have no effect on cultural resources.

Gilbert Hydro's proposal to stop construction if previously unidentified archeological or historic properties are discovered and contact the Idaho SHPO and Shoshone-Bannock Tribes prior to continuing construction would help protect any newly discovered cultural resources.

No-Action Alternative

Under the no-action alternative, the project would not be built, environmental resources in the project area would not be affected, and the renewable energy that would be produced by the project would not be developed.

Conclusions

Based on our analysis, we recommend licensing the project as proposed by Gilbert Hydro, with some staff modifications and additional measures.

In section 4.2 of the EA, we estimate the likely cost of alternative power for each of the three alternatives identified above. Under the no-action alternative, the project would not be constructed and would not produce any power. Our analysis shows that during the first year of operation under the proposed action alternative, project power would cost $8,400, or $15.27 per megawatt-hour (MWh) more than the likely alternative cost of power. Under the staff alternative, project power would cost $8,510, or $15.48/MWh, more than the likely alternative cost of power.

We chose the staff alternative as the preferred alternative because: (1) the project would provide a dependable source of electrical energy for the region (550 MWh annually); (2) the 90 kW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution, including greenhouse gases; and (3) the recommended environmental measures proposed by Gilbert Hydro, as modified by staff, would adequately protect and enhance environmental resources affected by the project. The overall benefits of the staff alternative would be worth the cost of the proposed and recommended environmental measures.

We conclude that issuing an original license for the project, with the environmental measures we recommend, would not be a major federal action significantly affecting the quality of the human environment.

ENVIRONMENTAL ASSESSMENT

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, D.C.

Gilbert Hydroelectric Project
FERC Project No. 14367-001—Idaho

1.0 INTRODUCTION

1.1 APPLICATION

On May 30, 2012, Don W. Gilbert Hydro Power, LLC (Gilbert Hydro or applicant) filed an application for an original minor license for the construction, operation, and maintenance of the proposed Gilbert Hydroelectric Project (Gilbert Project or project). The 90-kilowatt (kW) project would be constructed on a channel formed from flows of five unnamed springs. The project would be located about 1,000 feet upstream from the confluence with the Bear River and eight miles southwest of the City of Grace in Caribou County, Idaho. The project would be located on private lands owned by the applicant and would not occupy any federal lands. The project would generate an average of about 550 megawatt-hours (MWh) of energy annually.

1.2 PURPOSE OF ACTION AND NEED FOR POWER

1.2.1 Purpose of Action

The purpose of the proposed Gilbert Project is to provide a new source of hydroelectric power. Therefore, under the provisions of the Federal Power Act (FPA), the Federal Energy Regulatory Commission (Commission or FERC) must decide whether to issue a license to Gilbert Hydro for the Gilbert Project and what conditions should be placed on any license issued. In deciding whether to issue a license for a hydroelectric project, the Commission must determine that the project will be best adapted to a comprehensive plan for improving or developing a waterway. In addition to the power and developmental purposes for which licenses are issued (such as flood control, irrigation, or water supply), the Commission must give equal consideration to the purposes of: (1) energy conservation; (2) the protection of, mitigation of damage to, and enhancement of fish and wildlife resources; (3) the protection of recreational opportunities; and (4) the preservation of other aspects of environmental quality.

Issuing an original license for the Gilbert Project would allow Gilbert Hydro to generate electricity at the project for the term of a license, making electric power from a renewable resource available for use and sale.

This environmental assessment (EA) assesses the effects associated with the construction and operation of the proposed project, and alternatives to the proposed project, and makes recommendations to the Commission on whether to issue an original license, and if so, recommends terms and conditions to become part of any license issued.

In this EA, we assess the environmental and economic effects of constructing and operating the project: (1) as proposed by Gilbert Hydro, and (2) with our recommended measures. We also consider the effects of the no-action alternative. Important issues that are addressed include erosion and sedimentation control; and vegetation, wildlife, and cultural resources protection.

1.2.2 Need for Power

The Gilbert Project would provide hydroelectric generation to meet part of Idaho's power requirements, resource diversity, and capacity needs. The project would have an installed capacity of 90 kW and generate approximately 550 MWh per year. The electricity generated by the project in excess of Gilbert Hydro's needs would be sold to Rocky Mountain Power.

The North American Electric Reliability Corporation (NERC) annually forecasts electrical supply and demand nationally and regionally for a 10-year period. The Gilbert Project is located in the Basin subregion[1] of the Western Electricity Coordinating Council (WECC) region of the NERC. According to NERC's 2012 forecast, average annual demand requirements for the WECC region are projected to grow at a rate of 1.6 percent from 2012 through 2022. NERC projects planning reserve margins (capacity resources in excess of net internal demand) will be 15 percent during the 10-year forecast period, including estimated new capacity additions. Over the next 10 years, WECC estimates that about 19,361 MW of future planned capacity will be brought on line.

We conclude that power from the Gilbert Project would help meet a need for power in the WECC region in both the short and long-term. The project would provide power that displaces generation from non-renewable sources. Displacing the operation of non-renewable facilities may avoid some power plant emissions, thus creating an environmental benefit.

[1] The Basin subregion is a summer-peaking subregion composed of all or major portions of the states of Idaho, Nevada, Utah, and Wyoming.

1.3 STATUTORY AND REGULATORY REQUIREMENTS

A license for the proposed project is subject to numerous requirements under the FPA and other applicable statutes. The major regulatory and statutory requirements are summarized in table 1 and described below.

Table 1. Major statutory and regulatory requirements for the Gilbert Project (Source: staff).

Requirement	Agency	Status
Section 18 of the FPA	FWS	No fishway prescriptions or reservation of authority to prescribe fishways have been filed.
Section 10(j) of the FPA	Idaho DFG	The State of Idaho, on behalf of Idaho DFG, provided section 10(j) recommendations on December 13, 2012.
Clean Water Act – water quality certification	Idaho DEQ	The application for water quality certification was received on March 5, 2013; due by March 5, 2014.
Endangered Species Act Consultation	FWS	No federally listed species are known to occur within or near the project area; therefore, the project would have no effect on any federally listed species.
National Historic Preservation Act	Idaho SHPO	The Idaho SHPO determined on December 7, 2011, that no historic properties would be affected by the federal licensing action.

Notes: FWS – U.S. Department of the Interior, Fish and Wildlife Service
Idaho DFG – Idaho Department of Fish and Game
Idaho DEQ – Alaska Department of Environmental Quality
Idaho SHPO – Alaska State Historic Preservation Officer

1.3.1 Federal Power Act

1.3.1.1 Section 18 Fishway Prescriptions

Section 18 of the FPA states that the Commission is to require construction, operation, and maintenance by a licensee of such fishways as may be prescribed by the Secretaries of Commerce or the Interior.

No fishway prescriptions, or request for reservation of authority to prescribe fishways under section 18 of the FPA, have been filed.

1.3.1.2 Section 10(j) Recommendations

Under section 10(j) of the FPA,16 U.S.C. § 803(j), each hydroelectric license issued by the Commission must include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, or enhancement of fish and wildlife resources affected by the project. The Commission is required to include these conditions unless it determines that they are inconsistent with the purposes and requirements of the FPA or other applicable law. Before rejecting or modifying an agency recommendation, the Commission is required to attempt to resolve any such inconsistency with the agency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency.

The Idaho Department of Fish and Game (Idaho DFG) timely filed, on December 13, 2012, recommendations under section 10(j), as summarized in table 6 in section 5.4, *Fish and Wildlife Agency Recommendations*. In section 5.4, we also discuss how we address the agency recommendations and comply with section 10(j).

1.3.2 Clean Water Act

Under section 401 of the Clean Water Act (CWA), a license applicant must obtain certification from the appropriate state pollution control agency verifying compliance with the CWA. On March 5, 2013, Gilbert Hydro applied to the Idaho Department of Environmental Quality (Idaho DEQ) for 401 water quality certification (certification) for the Gilbert Project. Idaho DEQ received this request on the same day. The Idaho DEQ has not yet acted on the request. Idaho DEQ's action on the request is due by March 5, 2014.

1.3.3 Endangered Species Act

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure that 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.

No federally listed or proposed species, or critical habitats, are known to occur in the project area, and the FWS stated that the proposed project would not affect any of its trust species (email communication on March 21, 2013, between C. Myler, Partners Biologist, U.S Fish and Wildlife Service, and K. Wolcott, Environmental Biologist, FERC, Washington, D.C., filed on March 29, 2013). Therefore, we conclude that licensing the Gilbert Hydroelectric Project, as proposed with staff-recommended measures, would have no effect on any federally listed species and no further consultation is required under the ESA.

1.3.4 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are 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 of Historic Places (National Register).

Pursuant to section 106, Gilbert Hydro consulted with the Idaho State Historic Preservation Officer (Idaho SHPO) and affected Indian tribes to locate, determine National Register eligibility, and assess potential adverse effects on historic properties associated with the proposed project. By letter dated August 15, 2011[2], the Shoshone-Bannock Tribes commented that the proposed project would be located on private land. No comments were provided on the presence of any cultural resources. The tribes requested project construction cease in the event of an inadvertent discovery (cultural resources and/or human remains) and Gilbert Hydro consult with the tribes to ensure proper treatment of the cultural resources and/or human remains. By letter dated December 7, 2011[3], the Idaho SHPO commented that an archaeological survey would not be productive, withdrew its previous recommendation for a survey[4], and determined that the project would have no effect on historic properties. As a result of these findings made by the tribes and the Idaho SHPO's concurrence that no historic properties would be affected by the project, the drafting of a programmatic agreement to resolve adverse effects on historic properties will not be necessary.

1.4 PUBLIC REVIEW AND COMMENT

The Commission's regulations (18 Code of Federal Regulations [CFR], section 4.38) require that applicants consult with appropriate resource agencies, tribes, and other entities before filing an application for a license. This consultation is the first step in complying with the Fish and Wildlife Coordination Act, ESA, NHPA, and other federal statutes. Pre-filing consultation must be complete and documented according to the Commission's regulations.

1.4.1 Scoping

Due to the small size and location of the proposed project on private lands owned by the applicant, the close coordination with state and federal agencies during the

[2] A copy of the letter can be found in Appendix E of the final license application.

[3] A copy of the letter can be found in Appendix E of the final license application.

[4] The previous recommendation for a survey was included in a letter dated June 29, 2011. A copy of the letter can be found in Appendix E of the final license application.

preparation of the application, agency comments, and completed studies, we waived public scoping.[5]

1.4.2 Interventions

On October 17, 2012, the Commission issued a notice that it had accepted Gilbert Hydro's application to license the Gilbert Project, solicited motions to intervene and protest, and solicited comments and final terms and conditions, recommendations, and prescriptions. The notice set December 17, 2012, as the filing deadline. On December 13, 2012, the State of Idaho filed a timely motion to intervene, not in opposition, and comments on behalf of Idaho DEQ, Idaho DFG, Idaho Water Resource Board, and Idaho State Board of Land Commissioners. On December 10, 2012, Interior filed a letter stating that it had no comments on the application. Gilbert Hydro filed no reply comments.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 NO-ACTION ALTERNATIVE

The no-action alternative is license denial. Under the no-action alternative, the project would not be built and environmental resources in the project area would not be affected.

2.2 APPLICANT'S PROPOSAL

2.2.1 Project Facilities

The proposed project would consist of the following new facilities: (1) an 8-foot-long, 3-foot-wide, 3-foot-deep drop inlet structure that would divert flow from the unnamed natural stream channel into; (2) a 2-foot-diameter, 700-foot-long primarily above-ground[6] steel or plastic penstock; (3) a powerhouse containing two 45- kW reaction turbine/generator units for a total installed capacity of 90 kW; (4) an approximately 25-foot-long tailrace to convey flows from the powerhouse back to the existing stream channel; (5) a 150-foot-long, 480-volt transmission line that would connect to Rocky Mountain Power's three-phase line; and (6) appurtenant facilities. The drop inlet structure, penstock, powerhouse, and tailrace would bypass an approximately 800-foot-long reach of an existing stream channel that conveys flow from the unnamed

[5] The Commission issued a notice on October 17, 2012, stating that it intended to waive scoping for this project.

[6] Approximately 20 feet of the upper end of the penstock where it connects to the drop inlet structure would be buried.

springs to the Bear River. The project would divert up to 18 cubic feet per second (cfs) to the project. Project facilities are shown in figures 1 and 2.

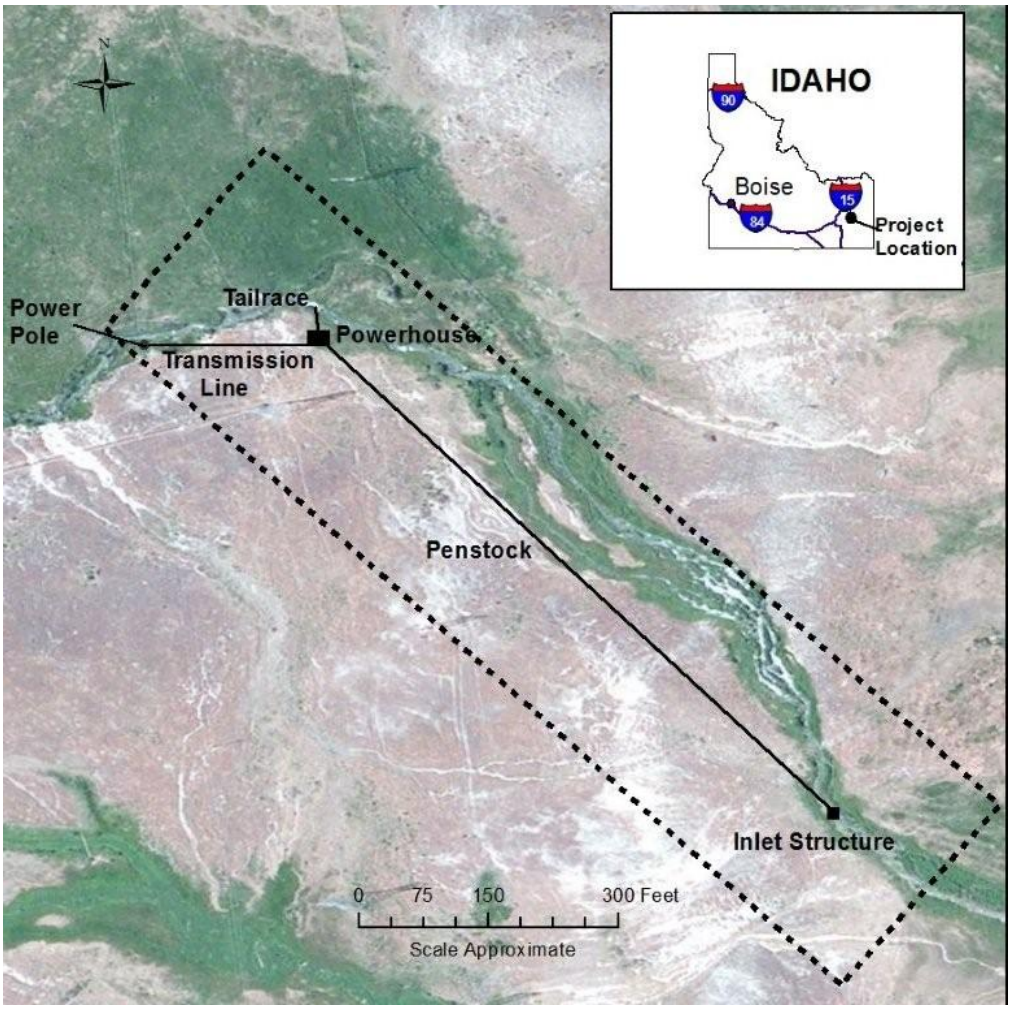

Figure 1. Location map and project features for the Gilbert Hydroelectric Project, FERC No. 14367 (Source: Staff).

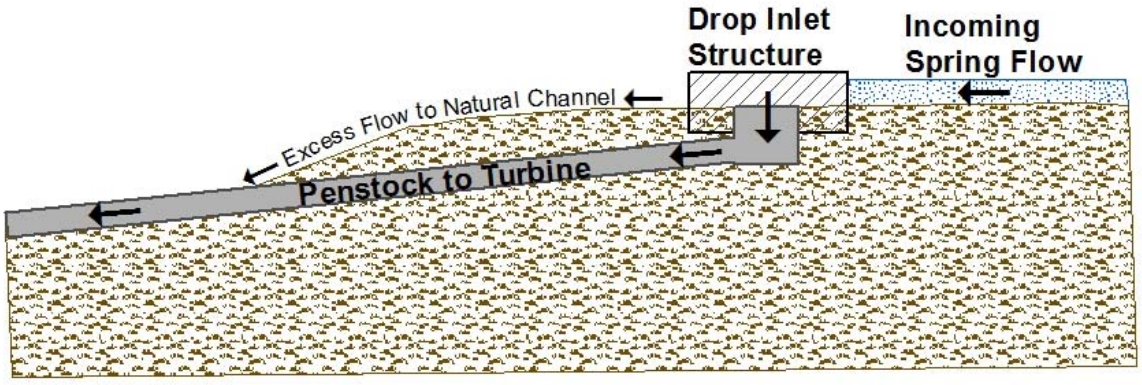

Figure 2. Schematic of drop inlet structure for the Gilbert Hydroelectric Project, FERC No. 14367 (Source: application, as modified by staff).

The proposed 900-foot-long, 300-foot-wide project boundary would enclose all of the project facilities listed above.

2.2.2 Project Safety

As part of the licensing process, the Commission would review the adequacy of the proposed project facilities. Special articles would be included in any license issued, as appropriate. Commission staff would inspect the licensed project both during and after construction. Inspection during construction would concentrate on adherence to Commission-approved plans and specifications, special license articles relating to construction, and accepted engineering practices and procedures. Operational inspections would focus on the continued safety of the structures, identification of unauthorized modifications, efficiency and safety of operations, compliance with the terms of the license, and proper maintenance.

2.2.3 Proposed Environmental Measures

Project Design and Operation Features

- Operate in a run-of-river mode to maintain natural flows downstream of the project for the protection of aquatic resources;
- Design and construct the project transmission line in accordance with the most current raptor protection standards recommended by the U.S. Fish and Wildlife Service (FWS);

- Design the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area.

During construction

- Implement industry-standard erosion control measures to minimize erosion and sedimentation;
- Stop construction immediately in the event of an inadvertent discovery of cultural resources or human remains, and contact the Idaho SHPO and the Shoshone-Bannock Tribes for guidance before continuing project construction or other project-related activity.

During project operation

- Implement a Revegetation Plan that includes: (1) streambank improvement to enhance habitat downstream of the powerhouse; (2) revegetation of areas disturbed during construction with crested wheatgrass in the upland areas and Timothy grass or, if available, deep-rooted plants such as sedges and rushes in the wetland areas to enhance vegetation, forage for livestock and wildlife, and wildlife habitat; and (3) use certified weed-free seeds and cleaning of all equipment prior to entry into the construction site to prevent the establishment of noxious weeds.

2.3 STAFF ALTERNATIVE

Under the staff alternative, the project would be constructed, operated, and maintained as proposed by Gilbert Hydro with the modifications and additions described below. Our recommended modifications and additional environmental measures include, or are based on, recommendations made by state resource agencies that have an interest in resources that may be affected by the proposed project.

Under the staff alternative, the project would include most of Gilbert Hydro's proposed measures, as outlined above, with the exception of the streambank improvement program proposed as part of the Revegetation Plan. In addition, the staff alternative includes the following modifications and additional measures:

- An Erosion and Sediment Control Plan that includes site-specific measures;
- Modification of the Revegetation Plan to include the use of native sedges and rushes during replanting of disturbed wetland areas, instead of Timothy grass as proposed;
- Developing the final transmission line design, in consultation with the FWS, to adhere to the most current APLIC standards;

- Notify the Commission, in addition to the Idaho SPHO and Shoshone-Bannock Tribes as proposed, and develop measures in consultation with the Idaho SHPO and the Shoshone-Bannock Tribes if previously unidentified archeological or historic properties are discovered; and
- In addition to finishing the powerhouse with a color that blends in with the rural character of the area, avoid reflective materials and highly-contrasting colors in the finished appearance of both the penstock and powerhouse to reduce their visibility from surrounding properties and public roads.

Proposed and recommended measures are discussed under the appropriate resource sections and summarized in section 4 of the EA.

3.0 ENVIRONMENTAL ANALYSIS

In this section, we present: (1) a general description of the project vicinity; (2) an explanation of the scope of our cumulative effects analysis; and (3) our analysis of the proposed action and other recommended environmental measures. Sections are organized by resource area. Under each resource area, historical and current conditions are first described. The existing condition is the baseline against which the environmental effects of the proposed action and alternatives are compared, including an assessment of the effects of proposed mitigation, protection, and enhancement measures, and any potential cumulative effects of the proposed action and alternatives. Staff conclusions and recommended measures are discussed in section 5.2, *Comprehensive Development and Recommended Alternative* of the EA.[7]

3.1 GENERAL DESCRIPTION OF THE RIVER BASIN

The project would be located in southeastern Idaho, about eight miles southwest of the City of Grace. The project would utilize flows from five unnamed springs that converge immediately upstream of the proposed project location and flow about 0.4 mile through an existing unnamed stream channel into the Bear River at approximately river mile (RM) 154.[8] The Bear River, from its headwaters in the Uinta Mountains to its mouth at the Great Salt Lake, is approximately 500 miles in length and drains a basin of 7,500 square miles. The unnamed springs are located within the Middle Bear subbasin which consists of the Bear River and its tributaries from Alexander dam (RM 170) to the Utah state line (RM 94).

[7] Unless noted otherwise, the sources of our information are the license application (Don W. Gilbert Hydro Power, LLC, 2012) and additional information filed by DeAnn Simonich for Gilbert Hydro Power on April 4, 2013.

[8] River miles were estimated based on Schmidt and Beck, 1975.

The project would be located in the Gentile Valley of southeastern Idaho. The topography of the area is characterized by relatively flat terrain of the valley floor running north and south along the Bear River, steep bluffs composed of river terraces to the east, and the forested ridges of the Portneuf Mountains to the west. Land in the project area is primarily used for agricultural purposes including livestock grazing and hay and crop production.

The climate of the Bear River Basin is generally continental and semiarid. The average annual precipitation in the City of Grace is 14.7 inches and the average snowfall is 44.7 inches, with the highest amount of snow falling in the months of December and January. Temperatures range from an average low of 10.2 degrees Fahrenheit in January to an average high of 84.9 degrees Fahrenheit in July.[9]

3.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (40 C.F.R. section 1508.7), cumulative effect is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Based on our review of the license application and agency comments, we have not identified any resources as having the potential to be cumulatively affected by the proposed project in combination with other past, present, and future activities.

3.3 PROPOSED ACTION AND ACTION ALTERNATIVES

In this section, we discuss the effects of the project alternatives on environmental resources. For each resource, we first describe the affected environment, which is the existing condition and baseline against which we measure effects. We then discuss and analyze the site-specific environmental issues.

Only the resources that would be affected, or about which comments have been received, are addressed in detail in this EA. Based on this, we have determined that geologic and soils, aquatic, terrestrial, cultural, and aesthetic resources may be affected by the proposed action and action alternatives. We have not identified any substantive issues related to land use, recreation, or socio-economic resources associated with the

[9] Historical data from the Western Regional Climate Center, 1907-2012, available at http://www.wrcc.dri.edu.

proposed action, and therefore, these resources are not assessed in the EA. We present our recommendations in section 5.2, *Comprehensive Development and Recommended Alternative*.

3.3.1 Geologic and Soils Resources

3.3.1.1 Affected Environment

The proposed project is located on a rocky bluff, characterized as lithic bedrock[10] overlain by shallow loams[11] (personal communication on February 26, 2013, between B. Griffith, Soil Survey Project Leader, Natural Resource Conservation Service, Soda Springs, Idaho, and J. Harper, Engineer, FERC, Washington, D.C., filed August 14, 2013). The drop inlet structure would be constructed on a rocky bluff, where the bedrock outcroppings are more pronounced. The penstock and powerhouse would be constructed over pasture lands with shallow loamy soils overlaying bedrock. The density of the vegetation near the proposed powerhouse location is restricted by the shallow depth of the soils and rocky outcroppings. Slopes in the project area range from 4 to 12 percent.

3.3.1.2 Environmental Effects

Land-disturbing activities associated with the proposed project construction, operation, and maintenance could cause erosion and sedimentation. To minimize erosion and sedimentation during construction activities, Gilbert Hydro proposes to: (1) implement industry-standard erosion control measures, and (2) reseed or replant areas disturbed during construction with crested wheatgrass in the upland areas and Timothy grass or deep-rooted plants such as sedges and rushes, if available, in the wetland areas, as part of the Revegetation Plan.

Idaho DFG recommends the applicant's proposed measures and deferred to Idaho DEQ to define specific measures to control or minimize erosion as part of the WQC.

Our Analysis

Due to the semi-arid conditions and the rocky outcrops in the project area, erosion potential as a result of project construction activities would be low. Nevertheless, vegetation clearing and ground-disturbing excavation activities associated with construction of the drop inlet structure, penstock, powerhouse, and transmission line could cause a minor amount of soil erosion. Gilbert Hydro's proposal to implement erosion control measures during project construction should minimize soil erosion and

[10] Lithic bedrock is differentiated from paralithic bedrock by its hardness and is far less erodible than paralithic bedrock or overlaying soils.

[11] Loams are soils that consist of relatively equal amounts of silts, sands, and clay.

sedimentation in project in waters. However, other than noting that its proposed measures would be consistent with industry standards, Gilbert Hydro does not provide any detail on the measures that it would implement. A site-specific Erosion and Sediment Control Plan would enable the Commission to document that the proposed measures are adequate to minimize the potential for soil erosion and sedimentation of project lands and waters. Revegetation of areas disturbed during construction would provide further protection from erosion. Revegetation is discussed further in section 3.3.3, *Terrestrial Resources*.

3.3.2. Aquatic Resources

3.3.2.1 Affected Environment

Water Quantity and Quality

A natural channel draining five unnamed springs would be the source water for the project. The flow from the unnamed stream channel flows about 0.4 mile to its confluence with the Bear River. During a normal year, the amount of combined flow in the springs ranges from 10 to 15 cfs, with higher flows up to 20 cfs possible during spring months. Flow measurements near the proposed powerhouse location collected in October 2009 recorded a flow rate of 13 cfs.

There is no information in the project record on the water quality of the unnamed springs; however, given that it originates from natural springs a short distance from the point of diversion and only flows for about 0.4 mile before entering the Bear River, water quality in the unnamed springs is likely excellent.

Fisheries Resources and Aquatic Habitat

Aquatic habitat in the existing stream channel downstream of the convergence of the five unnamed springs includes two distinct stream reaches: (1) an approximately 1,200 foot-long upper reach, and (2) an approximately 1,000-foot-long lower reach. A cascade/plunge pool complex forms the transition between the upper and lower reaches and also creates a natural barrier to fish attempting to access the upper reach. The upper reach predominately consists of shallow braided channels with an average gradient of 20 percent. The lower reach extends from the cascade/plunge pool complex to the confluence with the Bear River and ranges from 10 to 20 feet in width with water depths of less than one foot. The lower reach has a lower gradient than the upper reach and substrate consists primarily of silt, sand, and fine gravels. The entire length of the stream channel within the project area is located within existing agricultural lands used for livestock grazing. Grazing has resulted in erosion and streambank degradation in portions of the lower reach.

In August 2011, Idaho DEQ conducted fish surveys in two areas in the lower reach between the cascade/plunge pool complex and the confluence with the Bear River. The survey collected four fish species: rainbow trout, Bonneville cutthroat trout, brook trout, and sculpin. All species are common in the project vicinity. Bonneville cutthroat trout collected during the survey consisted of both naturally spawned and stocked individuals. No fish surveys were conducted upstream of the cascade/plunge pool complex, and there is no evidence of fish inhabiting the upper reach; however, Idaho DEQ reported that it appeared to be a barrier to upstream fish passage.

Other fish known to occur in the mainstem Bear River near the proposed project include brown trout, mountain whitefish, common carp, Utah sucker, mountain sucker, smallmouth bass, yellow perch, mottled sculpin, and Paiute sculpin (FERC, 2003).

3.3.2.2 Environmental Effects

Water Quantity and Quality

To protect water quality during construction, Gilbert Hydro proposes to use unspecified erosion control measures that it states would be consistent with industry standards to minimize sediment from washing into the existing stream channel during project construction.

During project operation, Gilbert Hydro proposes to operate the project in a run-of-river mode diverting up to 18 cfs for power generation.

Idaho DFG recommends that Gilbert Hydro obtain the necessary water rights to operate the proposed project or downsize the project to be consistent with the existing water rights permit.

Our Analysis

Constructing the proposed project would temporarily increase soil erosion and sedimentation. As discussed in section 3.3.1, *Geologic and Soil Resources*, Gilbert Hydro's proposed erosion control measures using industry standards, and staff's recommended development of an Erosion Sediment Control Plan would limit soil erosion and sedimentation, and related turbidity effects in the stream channel.

Operating the proposed project in a run-of-river mode would ensure that all diverted water is returned to the natural stream channel below the powerhouse for the protection of aquatic resources. In the event that the powerhouse trips off-line, flows would immediately bypass the penstock and powerhouse and return to the bypassed reach at the point of diversion; therefore, project operation would have no effect on flows above the diversion or below the powerhouse. In addition, operating the project in

run-of-river mode and without the use of a reservoir or impoundment would eliminate the potential for changes to water quality conditions that could occur if streamflow was impounded or stored by the project.

In regard to Idaho DFG's recommendation that Gilbert Hydro obtain the necessary water rights to operate the proposed project or downsize the project to be consistent with the existing water rights permit, Commission licenses include a standard article that requires licensees to require all rights necessary for operation and maintenance of a project within five years of license issuance.

Fisheries Resources and Aquatic Habitat

In its Revegetation Plan, Gilbert Hydro proposes to cooperate with federal and state agencies to develop a streambank improvement program in the existing stream channel downstream of the powerhouse. Gilbert Hydro states that it would not provide funding for the program and that it must approve any program elements that could potentially adversely affect agricultural use of its lands. Idaho DFG states that it would work with Gilbert Hydro to provide a funding source for the proposed streambank improvement program.

Our Analysis

Gilbert Hydro proposes to construct a drop inlet structure and 700-foot-long penstock to divert up to up to 18 cfs of flow from the existing stream channel to a new powerhouse located approximately 1,000 feet upstream from the confluence with the Bear River. The proposed powerhouse would be constructed adjacent to a cascade/plunge pool complex in the existing stream channel that forms a natural barrier to upstream fish passage. Water diverted for power production would be discharged from the powerhouse into a 25-foot-long tailrace channel that would return flows to the existing stream channel at a location immediately downstream of the cascade/plunge pool complex. Gilbert Hydro's proposal would result in the elimination or reduction of flow in the 800-foot-long bypassed reach between the point of diversion at the drop inlet structure and the location where the tailrace channel returns flow back to the existing stream channel. Although flow diversion would eliminate aquatic habitat in the bypassed reach during most of the year, there is no information in the project record to suggest that fish inhabit this reach. Therefore, there would be no effect on the existing fish community in the project area from reduction of habitat availability.

Gilbert Hydro's proposal to implement a streambank improvement program downstream of the proposed powerhouse location could potentially enhance aquatic and riparian habitat conditions downstream of the project. However, operation of the proposed project in run-of-river mode would not result in adverse effects to aquatic and riparian habitat downstream of the project and outside of the project boundary. Further,

Gilbert Hydro does not provide any specific measures to be implemented under the program or a schedule for implementation. Without specific measures, we cannot evaluate the environmental effects of the program or its relationship to the project.

3.3.3. Terrestrial Resources

3.3.3.1 Affected Environment

Vegetation

The project area occurs entirely within agricultural crop and pasture land and grasslands. The area surrounding the project in all directions also consists of similar lands, with small remnants of sagebrush-steppe scrub habitat preserved in areas of rugged topography. Similar to the topography of the stream channel, the terrestrial component of the project area can be divided into two components: a flat upper pasture section and a flat lower pasture section. The boundary between the upper and lower pastures is marked by a high gradient reach where the existing stream channel descends through the cascade/plunge pool complex. The boundary between the upper and lower pastures is marked by a high gradient reach of the stream channel where it descends to a second, smaller bluff. The topographic drop across this bluff provides the potential energy for hydropower generation.

The dominant vegetation type in both components is pasture grass and forbs. The lower pasture is more sparsely vegetated than the upper pastures due to the presence of thin soils and rocky substrate in the lower pasture. The banks of the existing stream channel consist of saturated wetlands varying in total width from approximately 10 feet (including the stream channel) along incised portions of the creek to approximately 100 feet in braided segments of the creek. Small areas of shrub-scrub vegetation occur along the bluffs and other small areas of rugged topography not suited for pasture grass.

GeoSense conducted a wetlands reconnaissance survey for Gilbert Hydro in the project area in July 2011 to delineate wetland boundaries and support the assessment of potential project effects. The survey was extended into the upper pasture area above the location of proposed project facilities to more thoroughly describe the overall nature of the wetlands complex in the project area. A total of 7.3 acres, all located on lands owned by the applicant, were mapped.

Wildlife

Wildlife resources in the project area include yellow-bellied marmot, squirrels, raccoons, mule deer, and various species of birds such as American kestrel, common nighthawk, mourning dove, red-breasted nuthatch, song sparrow, common snipe, cinnamon teal, Brewer's blackbird, and black-billed magpie (Idaho Department of Lands,

2004). Common species of waterfowl use the Bear River, which adjoins the lower pasture approximately 1,000 feet below the powerhouse site.

3.3.4.2 Environmental Effects

Vegetation

The proposed project would temporarily disturb 0.5 acre of wetland vegetation and permanently remove 0.1 acre of upland vegetation. The drop inlet structure and about 430 feet of the proposed penstock would be located in existing wetlands. The remainder of the penstock, powerhouse, and transmission line would be located in uplands areas. Gilbert Hydro proposes to implement a Revegetation Plan to revegetate areas disturbed during project construction.

The Revegetation Plan includes provisions to reseed and replant areas disturbed by project construction. The plant seed mixture would be certified weed-free. Gilbert Hydro proposes to reseed the upland areas with crested wheatgrass and the wetland areas with Timothy grass, or deep-rooted plants such as sedges or rushes, if available. Gilbert Hydro would also plant grasses as soon as possible after construction to revegetate disturbed areas, provide forage for livestock and wildlife, and enhance wildlife habitat. To control noxious weeds, Gilbert Hydro would clean all equipment prior to entry into the construction site. All tires (including treads), and undercarriages would be thoroughly cleaned to prevent the introduction and spread of noxious weeds. Idaho DFG recommends the applicant's proposed measures in the proposed Revegetation Plan with the exception of reseeding wetlands areas with Timothy grass. Instead, Idaho DFG recommends that Gilbert Hydro replant wetland areas with native sedges and rushes, and offered to help locate sources of native plants.

Our Analysis

The proposed Revegetation Plan would help to restore upland and wetland areas that were temporarily disturbed by project construction. Cleaning construction equipment prior to entering the project site would reduce the introduction and spread of invasive species. Reseeding and replanting wetland areas using native sedges and rushes instead of Timothy grass, as recommended by Idaho DFG, would promote and enhance native vegetation. Restoring disturbed wetland areas with native species and upland areas with the crested wheatgrass would also provide forage for livestock and wildlife and enhance wildlife habitat in the project area.

Wildlife

Gilbert Hydro proposes to construct the project transmission line in accordance with FWS's most current standard for raptor protection standards. Idaho DFG

recommends that Gilbert Hydro consult with FWS to design appropriate raptor protection measures for the project transmission line.

Our Analysis

Constructing the transmission line to the most current raptor protection standards as recommended by, and in consultation with, FWS would minimize the risk of raptor collision and electrocution with the project transmission line.

Construction activities have the potential to disturb wildlife that occur in the project area. Increased human presence and noise associated with project construction, while expected to be minimal, may disturb and displace wildlife from the project area. Any potential disturbance or displacement is expected to be temporary. Permanent loss of 0.1 acre of upland habitat and temporary loss of 0.5 acre of wetland habitat would have a minor effect on wildlife. The effects of the proposed and recommended revegetation measures are discussed above under *Vegetation*.

3.3.4. Threatened, Endangered, and Sensitive Species

No federal listed, proposed, or candidate species are known to be present in the project area, and FWS stated that the proposed project would not affect trust species. Idaho DFG also stated that it is unaware of any federally listed species in the project area and agreed with the applicant that the project would not affect any federally listed species. Therefore, the project would not affect any threatened, endangered, or sensitive species or their habitats.

3.3.5 Cultural Resources

3.3.5.1 Affected Environment

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires the Commission to evaluate potential effects on properties listed or eligible for listing in the National Register prior to an undertaking. An undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including, among other things, processes requiring a federal permit, license, or approval. In this case, the undertaking is the proposed issuance of an original license for the project. Potential effects associated with this undertaking include project-related effects associated with construction or the day-to-day operation and maintenance of the project after issuance of an original license.

According to the Advisory Council on Historic Preservation's (Advisory Council) regulations (36 C.F.R. section 800.16(l)(1), an historic property is defined as any

prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. The term includes properties of traditional religious and cultural importance to an Indian tribe and that meet the National Register criteria. In this EA we also use the term "cultural resources" for properties that have not been evaluated for eligibility for listing in the National Register. In most cases, cultural resources less than 50 years old are not considered eligible for the National Register.

Section 106 also requires that the Commission seek concurrence with the Idaho SHPO on any finding involving effects or no effects on historic properties, and allow the Advisory Council an opportunity to comment on any finding of adverse effects on historic properties. If Native American properties have been identified, section 106 also requires that the Commission consult with interested Indian tribes that might attach religious or cultural significance to such properties.

Cultural Context

The project area is within a large region spanning Idaho and several adjoining states that was traditionally occupied by Northern Shoshone and Northern Paiute tribes. These distinct Native American groups were linguistically related and were hunters and gatherers who moved with the seasons to collect food and other resources. Southeastern Idaho was a favored wintering area for both Shoshone and Bannock (Northern Paiute) bands.[12]

Early Euro-American contact with these tribes included John Jacob Astor's Pacific Fur Company expedition of 1811 to the Snake River region of southern Idaho, which initiated an intensive period of trapping through the 1830s. By 1843, the Oregon Trail along the Snake River had become well established as a migration route for Euro-American settlers bound for the Pacific Northwest. Mining, grazing, ranching, and settlement by non-natives led to major conflicts with the tribes, including the Bear River Massacre (1863),[13] Snake Indian War (1866-1868), and the Bannock War (1878).[14] As a consequence, the Fort Hall Indian Reservation was established by the Fort Bridger Treaty of 1868. Farming and ranching expanded across the region in the late 1800s, substantially aided by irrigation from the early 1900s through the present. More than 5,600 tribal members currently reside on or near the reservation, which is located about 30 miles away generally to the west and north of the project area.

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[12] History of the Shoshone-Bannock Tribes, available at http://www.shoshonebannocktribes.com.

[13] *Id*. The Bear River Massacre site, located at the confluence of the Bear River and Beaver Creek, is more than 30 miles downriver from the proposed project.

[14] A brief history of Euro-American contact with the tribes is contained in the Malad Hydroelectric Project Final Environmental Assessment (P-2726-012). Federal Energy Regulatory Commission, Washington, D.C., September 24, 2004.

No Cultural Resources or Historic Properties Identified

The area surrounding the proposed project has been disturbed by grazing, cultivation, and agricultural use, as well as by an existing Rocky Mountain Power transmission line. The area within the project boundary consists primarily of agricultural land. In 2011, Gilbert Hydro consulted with the Idaho SHPO and interested Indian tribes, and provided photographs of the proposed project site and a description of the proposed 90 kW project, including the proposed 150-foot-long transmission line. Gilbert Hydro stated in its application that an inventory and/or survey of cultural resources might not be warranted because the proposed project occupies a small area of land owned by Gilbert Hydro and used for past and current agricultural practices.

By letter dated August 15, 2011[15], the Shoshone-Bannock Tribes commented that the proposed project area is within the ancestral lands of the Shoshone and Bannock people. No comments were provided on the presence of any cultural resources. In the event of an inadvertent discovery (cultural resources and/or human remains) during project construction, the tribes requested project construction cease and Gilbert Hydro consult with the tribes to ensure proper treatment of cultural resources and/or human remains.

3.3.5.2 Environmental Effects

By letter dated December 7, 2011, the Idaho SHPO agreed with Gilbert Hydro that an archaeological survey would not be productive, withdrew its recommendation for a survey, and determined that there would be no effect on historic properties.[16] Because no historic properties would be affected by the proposed project, a programmatic agreement and associated Historic Properties Management Plan are not needed. If previously unidentified archeological or historic properties are discovered during construction, operation, or maintenance of the project facilities, Gilbert Hydro proposes to immediately stop construction and notify the Idaho SHPO and Shoshone-Bannock Tribes for guidance prior to resuming the project-related activity.

Our Analysis

Previously unidentified archeological or historic properties may be discovered during project construction, operation, or maintenance. Gilbert Hydro's proposal to notify and consult with the Idaho SHPO and the Shoshone-Bannock Tribes would address any effects on cultural resources, if cultural resources are discovered during the term of any license issued.

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[15] A copy of the letter can be found in Appendix E of the final license application.

[16] Gilbert Hydro included each letter from the Shoshone-Bannock Tribes and the Idaho SHPO in its license application at Appendix E.

Based on our independent analysis, we agree with the findings and determinations made by Gilbert Hydro, the Idaho SHPO, and the Shoshone-Bannock Tribes that the proposed project would have no adverse effect on historic properties. Although no historic properties are known to occur within the proposed project boundary, it is possible that cultural resources may be discovered during construction, operation, or maintenance of the project.

3.3.6. Aesthetic Resources

3.3.6.1 Affected Environment

The project area is located in an area of pasture, crop land, grasslands, rocky bluffs, and wetlands along existing springs that discharge through an existing stream channel to the Bear River. Extensive agricultural activities and related structures are sparsely scattered throughout the area. Farm roads, irrigation systems, and transmission lines are also present. The nearest public road is approximately 0.5 mile to the east. The project area is on private land surrounded by extensive farms, ranches, and open country with long viewing distances, particularly to the north, south, and west.

3.3.6.2 Environmental Effects

Construction and operation of the proposed project would affect aesthetic resources in the vicinity by introducing project facilities into a relatively undeveloped, rural and agricultural setting. Gilbert Hydro proposes to reduce visual effects by designing the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area.

No other specific concerns relating to noise or visual effects were expressed by agencies or other interested participants during project consultation.

Our Analysis

During construction, the presence of equipment and vehicles would have short-term negative effects on views and noise levels.

During operation, visual and noise effects are expected to be minor. The site of the proposed project and surrounding lands are owned by the applicant, and the nearest residence is approximately 1,000 feet to the northeast. Other residences and public roads in the area are typically one-half to one mile away from the project site. The most visible project features would be the powerhouse and 700-foot-long, primarily above-ground penstock. At these distances, the proposed powerhouse and penstock should be relatively inconspicuous from most vantage points and would be partially hidden from view by intervening topography. Gilbert Hydro's proposal to reduce visual effects by designing

the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area would help to minimize the aesthetic effects of the project. However, visual effects could be further minimized by avoiding reflective materials and highly-contrasting colors in the finished appearance of both the penstock and the powerhouse.

Noise produced by the powerhouse may be audible offsite, but is expected to be of a low intensity and should not significantly change ambient noise levels in the area.

3.4 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Gilbert Project would not be constructed. There would be no changes to the physical, biological, recreational, or cultural resources of the area and electrical generation from the project would not occur. The power that would have been developed from a renewable resource would have to be replaced from nonrenewable fuels.

4.0 DEVELOPMENTAL ANALYSIS

In this section, we look at the Gilbert Project's use of the unnamed channel's flow for hydropower purposes to see what effect various environmental measures would have on the project's costs and power generation. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,[17] the Commission compares the current project cost to an estimate of the cost of obtaining the same amount of energy and capacity using the likely alternative source of power for the region (cost of alternative power). In keeping with Commission policy as described in *Mead Corp.*, our economic analysis is based on current electric power cost conditions and does not consider future escalation of fuel prices in valuing the hydropower project's power benefits.

For each of the licensing alternatives, our analysis includes an estimate of: (1) the cost of individual measures considered in the EA for the protection, mitigation and enhancement of environmental resources affected by the project; (2) the cost of alternative power; (3) the total project cost (i.e., for construction, operation, maintenance, and environmental measures); and (4) the difference between the cost of alternative power and total project cost. If the difference between the cost of alternative power and total project cost is positive, the project produces power for less than the cost of alternative power. If the difference between the cost of alternative power and total

[17] See *Mead Corporation, Publishing Paper Division*, 72 FERC ¶ 61,027 (July 13, 1995). In most cases, electricity from hydropower would displace some form of fossil-fueled generation, in which fuel cost is the largest component of the cost of electricity production.

project cost is negative, the project produces power for more than the cost of alternative power. This estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. However, project economics is only one of many public interest factors the Commission considers in determining whether, and under what conditions, to issue a license.

4.1 POWER AND DEVELOPMENTAL BENEFITS OF THE PROJECT

Table 2 summarizes the assumptions and economic information we use in our analysis. This information, except as noted, was provided by Gilbert Hydro in its license application and subsequent filings. We find that the values provided by Gilbert Hydro are reasonable for the purposes of our analysis. Cost items common to all alternatives include: taxes and insurance costs; estimated future capital investment required to maintain and extend the life of plant equipment and facilities; licensing costs; and normal operation and maintenance cost.

Table 2. Parameters for economic analysis of the Gilbert Project (Source: staff and Gilbert Hydro).

Economic Parameter	**Value**
Period of analysis (years)	30
Interest/discount rate (%)	7.25 [a]
Federal tax rate (%)	35 [b]
State tax (%)	3 [b]
Insurance rate ($/year)	$1,000[a]
Average annual generation (MWh)	550[a]
Energy value ($/MWh)	$30.35[c]
Term of financing (years)	20
Construction cost ($)	$200,000[a]
License application cost ($)	$25,000[a]
Operation and Maintenance, $/year	$2,000[a]

[a] From final license application filed May 30, 2012.

[b] Assumed by staff.

[c] 2013 contract year cost provided by Idaho Power Avoided Cost Rates for Non-Fueled Projects, Errata to Order No. 32697, dated January 2, 2013.

4.2 COMPARISON OF ALTERNATIVES

Table 3 summarizes the installed capacity, annual generation, cost of alternative power, estimated total project cost, and difference between the cost of alternative power and total project cost for each of the action alternatives considered in this EA: the applicant's proposal and the staff alternative.

Table 3. Summary of the annual cost of alternative power and annual project cost for the action alternatives for the Gilbert Project (Source: staff).

	Gilbert Hydro's Proposal	Staff Alternative[a]
Installed capacity (kW)	90	90
Annual generation (MWh)	550	550
Annual cost of alternative power	$16,690 $30.35/MWh	$16,690 $30.35/MWh
Annual project cost	$25,090 $45.62/MWh	$25,200 $45.83/MWh
Difference between the cost of alternative power and project cost	($8,400)[b] ($15.27/MWh)[b]	($8,510)[b] ($15.48/MWh)[b]

[a] Costs were escalated to 2013 dollars using the Consumer Price Index for Energy Services.
[b] A number in parentheses denotes that the difference between the cost of alternative power and project cost is negative, thus the total project cost is greater than the cost of alternative power.

4.2.1 No-action Alternative

Under the no-action alternative, the project would not be constructed as proposed and would not produce any electricity. No costs for construction, operation and maintenance, or proposed environmental protection, mitigation, or enhancement measures would be incurred by the applicant.

4.2.2 Gilbert Hydro's Proposal

Under Gilbert Hydro's proposal, the project would require construction of a drop inlet structure, a penstock, a powerhouse containing generation facilities, a tailrace, and a

transmission line. Gilbert Hydro proposes various environmental measures to protect, mitigate, and enhance existing environmental resources in the vicinity of project features.

Under Gilbert Hydro's proposal, the project would have an installed capacity of 90 kW and would generate an average of 550 MWh annually. The average annual cost of alternative power would be $16,690, or about $30.35/MWh. The average annual project cost would be $25,090 or about $45.62/MWh. Overall, the project would produce power at a cost which is $8,400, or $15.27/MWh, more than the cost of alternative power.

4.2.3 Staff Alternative

The staff alternative would have the same capacity and energy attributes as Gilbert Hydro's proposal. Table 4 shows the staff-recommended additions, deletions, and modifications to Gilbert Hydro's proposed environmental protection and enhancement measures, and the estimated cost of each. The cost of alternative power would be the same as the applicant's proposal. The average annual project cost would $25,200, or about $45.83/MWh. Overall, the project would produce power at a cost which is $8,510, or $15.48/MWh, more than the cost of alternative generation

4.3 COST OF ENVIRONMENTAL MEASURES

Table 4 gives the cost of each of the environmental enhancement measures considered in our analysis. We convert all costs to equal annual (levelized) values over a 30-year period of analysis to give a uniform basis for comparing the benefits of a measure to its cost.

Table 4. Cost of environmental mitigation and enhancement measures considered in assessing the environmental effects of construction and operation of the Gilbert Project (Source: staff).

Enhancement/Mitigation Measures	**Entities**	**Capital (2013$)[a]**	**Annual (2012$)[a]**	**Levelized Annual Cost (2012$)[b]**	**Notes**
1. Implement erosion control measures that are consistent with industry standards	Gilbert Hydro	$2,565	$0	$190	
2. As part of the Revegetation Plan, develop and implement a streambank improvement program	Gilbert Hydro	Unknown	Unknown	Unknown	c
3. As part of the Revegetation Plan, (1) revegetation of areas disturbed during construction with crested wheatgrass in the upland areas and Timothy grass or, if available, deep rooted plants such as sedges and rushes in the wetland areas as soon as possible after construction; and (2) use of certified weed-free seeds and cleaning equipment prior to entry into construction site	Gilbert Hydro	$2,565	$0	$190	
4. Same as #3, but replant disturbed wetland areas with native rushes and sedges instead of	Staff, Idaho DFG	$3,080	$0	$230	f

Timothy grass					
5. Design and construct the project transmission line in accordance with the most current raptor protection standards recommended by FWS	Gilbert Hydro	$0	$0	$0	d
6. Consult with FWS for guidelines for transmission line design and construction	Idaho DFG	$0	$0	$0	d
7. Design and construct the transmission line to APLIC standards in consultation with FWS	Staff	$0	$0	$0	d
8. Notify the SHPO, Shoshone-Bannock Tribe, and Commission if any archeological artifacts are found and develop protective measures	Gilbert Hydro, Staff	$0	$0	$0	e
9. Develop an Erosion and Sediment Control Plan	Staff	$1,025	$0	$70	b
10. Design the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area	Gilbert Hydro	$0	$0	$0	

11. Avoid reflective materials and highly-contrasting colors in the finished appearance of both the penstock and powerhouse	Staff	$0	$0	$0	

[a] Costs were provided by Gilbert Hydro unless otherwise noted.

[b] Cost estimated by staff.

[c] The measures that would be implemented were not specified; therefore, Commission staff could not assign a cost for this proposal. While the Commission staff does not object to Gilbert Hydro's proposal to develop and implement the streambank improvement program to enhance downstream resources, staff does not recommend that it be a condition of any license issued for this project.

[d] These costs are included in the overall construction costs of the project.

[e] The implementation of this measure would only happen if archeological artifacts are found; staff's recommendation to notify the SHPO, Shoshone-Bannock Tribe, and the Commission would have no additional cost.

[f] The implementation of this measure would have an incremental cost of $515 (and an incremental levelized annual cost of $40) over the applicant's proposed Revegetation Plan to account for the difference in cost between Timothy grass seed and Idaho DFG and staff's recommended native rushes and sedges.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 COMPARISON OF ALTERNATIVES

In this section, we compare the developmental and non-developmental effects of Gilbert Hydro's proposal, Gilbert Hydro's proposal as modified by staff, and the no-action alternative.

We estimate the annual generation of the project under the two action alternatives identified above would be the same.

We summarize the environmental effects of the different alternatives in Table 5.

Table 5. Comparison of Alternatives for the Gilbert Hydroelectric Project (Source: staff).

Resource	**No Action Alternative**	**Proposed Action**	**Staff Alternative**
Geology and Soils	No changes to geology and soils.	Temporary erosion during vegetation clearing and excavation for construction; however, soil erosion would be minimized through proposed industry-standard erosion control measures.	Same as Proposed Action, except development of a site-specific Erosion and Sediment Control Plan would ensure soil erosion and sedimentation would be minimized.
Aquatic Resources	No changes to aquatic resources.	Run-of-river operation would maintain aquatic habitat below the proposed powerhouse and minimize adverse effects on water quality. Erosion, sedimentation, and turbidity of project waters may occur during construction; however, these would be minimized	Same as Proposed Action, except a site-specific Erosion and Sediment Control Plan would ensure minimal erosion, sedimentation, and turbidity. No streambank stabilization downstream of the project would occur.

		through proposed industry-standard erosion control measures. Proposed streambank improvement program could enhance aquatic habitat downstream of the powerhouse.	
Terrestrial Resources	No changes to terrestrial resources.	Minor increased potential for raptor collision and electrocution with transmission line. Temporary disturbance of 0.5 acre vegetation and permanent loss of 0.1 acre. Disturbed vegetation would be restored and the livestock and wildlife forage and wildlife habitat would be replaced. Noxious weed establishment would be minimized.	Same as Proposed Action, except disturbed wetlands would be revegetated with native sedges and rushes instead of Timothy grass, enhancing vegetation, forage for livestock and wildlife, and wildlife habitat.
Cultural Resources	No changes to cultural resources.	No effects on identified cultural resources. If previously unidentified cultural resources or human remains are discovered, resources would likely be protected.	Same as Proposed Action except, if archeological or historic properties are discovered, Commission notification and protection measures developed in consultation with Idaho SHPO and Shoshone-Bannock, would provide

			greater assurance of resource protection.
Aesthetic Resources	No changes to aesthetic resources.	Potential minor visual effects on surrounding properties.	Same as Proposed Action, except minor effects would be reduced by avoiding reflective materials and high-contrast colors in the finished appearance of facilities.

5.2 COMPREHENSIVE DEVELOPMENT AND RECOMMENDED ALTERNATIVE

Sections 4(e) and 10(a)(1) of the FPA require the Commission to give equal consideration to the power development purposes and to the purpose of energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. This section contains the basis for, and a summary of, our recommendations for licensing the Gilbert Hydroelectric Project. We weigh the costs and benefits of our recommended alternative against other proposed measures.

Based on our independent review of agency and public comments filed on this project and our review of the environmental and economic effects of the proposed project and its alternatives, we selected the staff alternative as the preferred alternative. This alternative includes elements of the applicant's proposal, resource agency recommendations, and some additional measures. We recommend this alternative because: (1) issuance of an original hydropower license by the Commission would allow Gilbert Hydro to build and operate the project as a beneficial and dependable source of electrical energy; (2) the 90 kW of electric capacity available comes from a renewable resource that does not contribute to atmospheric pollution; (3) the public benefits of this alternative would exceed those of the no-action alternative; and (4) the recommended measures would protect and enhance environmental resources affected by constructing, operating, and maintaining the project.

In the following section, we make recommendations as to which environmental measures proposed by Gilbert Hydro or recommended by agencies or other entities should be included in any original license issued for the project. In addition to Gilbert Hydro's proposed environmental measures, we recommend additional environmental

measures to be included in any license issued for the project, as described in section 5.2.2 below.

5.2.1 Measures Proposed by Gilbert Hydro

Based on our environmental analysis of Gilbert Hydro's proposal in section 3, and the costs presented in section 4, we conclude that the following environmental measures proposed by Gilbert Hydro would protect and enhance environmental resources and would be worth the cost. Therefore, we recommend including these measures in any license issued for the project.

Operation and Design Features

- Operate in a run-of-river mode to maintain natural flows downstream of the project for the protection of aquatic resources;
- Design and construct the project transmission line in accordance with the most current raptor protection standards recommended by the FWS;
- Design the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area.

During construction

- Implement industry-standard erosion control measures to minimize erosion and sedimentation;
- Stop construction immediately in the event of an inadvertent discovery of cultural resources or human remains, and contact the Idaho SHPO and the Shoshone-Bannock Tribes for guidance before continuing project construction or other project-related activity.

During project operation

- Implement the portions of the Revegetation Plan that include: (1) revegetation of areas disturbed during construction with crested wheatgrass in the upland areas; and (2) use of certified weed-free seeds and cleaning of all equipment prior to entry into construction site.

5.2.2 Modifications and Additional Measures Recommended by Staff

We recommend the measures described above, and the following modifications and additional staff-recommended measures:

- An Erosion and Sediment Control Plan that includes site-specific measures;

- Modification of the Revegetation Plan to include the use of native sedges and rushes during replanting of disturbed wetland areas, instead of Timothy grass as proposed;
- Developing the final transmission line design, in consultation with the FWS, to adhere to the most current APLIC standards;
- Notify the Commission, in addition to the Idaho SPHO and Shoshone-Bannock Tribes as proposed, and develop measures in consultation with the Idaho SHPO and the Shoshone-Bannock Tribes if previously unidentified archeological or historic properties are discovered; and
- In addition to finishing the powerhouse in a color that blends in with the rural character of the area, avoid reflective materials and highly-contrasting colors in the finished appearance of both the penstock and powerhouse to reduce their visibility from surrounding properties and public roads.

Below, we discuss the basis for our staff-recommended modifications and additional measures.

Erosion and Sediment Control Plan

Gilbert Hydro proposes to minimize the potential for erosion and sedimentation from project construction by implementing unspecified erosion control measures that it states would be consistent with industry standards. While the proposed measures could potentially minimize soil erosion in the project area, Gilbert Hydro's proposal lacks detail on the measures that would be implemented to ensure its effectiveness and adequately provide for Commission oversight and enforcement of the measures. For these reasons, we recommend that Gilbert Hydro prepare and file, after consultation with Idaho DFG and Idaho DEQ, a site-specific Erosion and Sediment Control Plan that specifies the measures that would implemented during project construction. We envision the plan would include, but not necessarily be limited to, a description of the measures for protecting existing vegetation, grading slopes, controlling surface drainage, containing sediment, stockpiling topsoil, storing and disposing excess soil and debris, and clearing and constructing the transmission line rights-of-way. We estimate that the levelized annual cost to develop the plan would be $70, and conclude that the benefits of the plan would justify the additional cost.

Revegetation Plan

Gilbert Hydro proposes to implement a Revegetation Plan that includes, in part, provisions to reseed and replant areas disturbed by project construction. The seeds would be certified weed-free. Gilbert Hydro proposes to reseed the upland areas with crested wheatgrass and the wetland areas with Timothy grass, or, if available, deep-rooted plants such as sedges or rushes. Idaho DFG recommends that Gilbert Hydro replant wetland areas with native sedges and rushes instead of Timothy grass, and offered to help locate

sources of native plants. Reseeding and replanting wetland areas using native sedges and rushes instead of Timothy grass would promote and enhance native vegetation, livestock and wildlife forage, and wildlife habitat. We estimate that the additional levelized annual cost to replant disturbed wetlands with native sedges and rushes would be $40, and conclude that the benefits of this measure would justify the additional cost.

Transmission Line Design and Construction

Gilbert Hydro proposes to design the project transmission line in accordance with the most current raptor protection standards recommended by FWS. Idaho DFG recommends that Gilbert Hydro consult with FWS on the design of appropriate raptor protection measures for the project transmission line. While Gilbert Hydro's proposal could protect raptors in the project area, the plan lacks detail on the standards that would be implemented and any mechanism to consult with the FWS prior to final design and construction of the transmission line. Therefore, we recommend an additional requirement that Gilbert Hydro design the transmission line, in consultation with the FWS, to adhere to APLIC standards. This would ensure that the transmission line would be protective of raptors on the project area. We estimate that there would be no cost for the additional requirement and conclude that the benefits of ensuring raptor protection would be justified.

Cultural Resources

As part of Gilbert Hydro's license application, Gilbert Hydro included letters from the Idaho SHPO and the Shoshone-Bannock Tribes that reached the same conclusion that no historic properties would be affected by the proposed project. Although no cultural resources or historic properties have been identified within the project boundary, it is possible that previously unidentified archeological or historic properties could be discovered during construction, operation, or maintenance of project facilities. To ensure protection of cultural resources and provide guidance on measures to be implemented if cultural resources are discovered during the term of any license issued for the project, we recommend that Gilbert Hydro also notify the Commission and develop measures in consultation with the Idaho SHPO and Shoshone-Bannock Tribes. We estimate that there would be no cost for this additional measure and find the benefits of this measure would be in the public interest.

Aesthetic Resources

To reduce potential effects on aesthetic resources, including the visibility of project facilities from surrounding properties, Gilbert Hydro proposes to design the powerhouse to be small in size, similar in appearance to other buildings in the area, and finished with a color that blends in with the rural character of the area. To minimize visual effects on neighboring residences, we recommend that reflective materials and

highly-contrasting colors be avoided in the finished appearance of both the penstock and the powerhouse. We estimate that there would be no cost to implement this measure and conclude that the aesthetic benefits would be justified.

5.2.3 Measures Not Recommended

Some of the measures proposed by Gilbert Hydro and recommended by Idaho DFG would not contribute to the best comprehensive use of project water resources, do not exhibit sufficient nexus to the project environmental effects, or would not result in benefits to non-power resources that would be worth their cost. The following discusses the basis for staff's conclusion not to recommend such measures.

Streambank Improvement Program

As part of its Revegetation Plan, Gilbert Hydro proposes to work with federal and state agencies to develop a streambank improvement program along the existing stream channel downstream of the powerhouse. Gilbert Hydro stipulates that it would not provide funding for the proposed program and that it would need to approve any program elements that could potentially adversely affect agricultural use of its land. Idaho DFG indicated in its comments on the license application that it would work with Gilbert Hydro and other agencies to identify sources of funding for the program.

While the proposed program could potentially enhance aquatic and riparian habitat downstream of the powerhouse, we do not recommend including a provision in the license for the proposed program. The area in which the program would be implemented is located downstream of the project area and outside of the project boundary. Furthermore, the run-of-river operation would ensure that there would be no project-related effects on downstream aquatic and riparian resources. This measure does not have a sufficient nexus to project effects. For these reasons, we do not recommend the proposed program be included as a license requirement.[18]

5.2.4 Other Issues

Water Rights

Idaho DFG recommends that Gilbert Hydro acquire a water right equal to the amount of water that will be diverted by the project. Commission licenses include a standard article requiring licensees to acquire all rights necessary for operation and maintenance of the project; therefore, there is no need for and we do not recommend an

[18] We have no objection to Gilbert Hydro entering into a cooperative agreement with the State of Idaho or another party to implement the streambank improvement program outside of the requirements of any license that may be issued for the project.

additional license condition specifically requiring Gilbert Hydro to acquire a water right for water diverted by the project.

5.3 UNAVOIDABLE ADVERSE EFFECTS

Construction and operation of the proposed project would result in temporary increases in erosion and sedimentation of project lands and waters, temporary increases in water turbidity during construction of project facilities and initial project operation, permanent increased potential for raptor collision and electrocution as a result of the new transmission line, temporary and permanent vegetation loss, and minor visual effects on surrounding properties.

5.4. FISH AND WILDLIFE AGENCY RECOMMENDATIONS

Under the provisions of section 10(j) of the FPA, each hydroelectric license issued by the Commission shall include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, or enhancement of fish and wildlife resources affected by the project.

Section 10(j) of the FPA states that whenever the Commission believes that any fish and wildlife agency recommendation is inconsistent with the purposes and the requirements of the FPA or other applicable law, the Commission and the agency shall attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency. In response to our REA notice, Idaho DFG submitted recommendations for the project on December 13, 2012. Table 6 lists the state recommendations filed subject to section 10(j), and indicates whether the recommendations are adopted under the staff alternative. Environmental recommendations that we consider outside the scope of section 10(j) have been considered under section 10(a) of the FPA and are addressed in the specific resource sections of this document and the previous section.

We determined one recommendation, to revegetate wetland areas using native sedges and rushes instead of Timothy grass, to be within the scope of section 10(j) and recommend this measure. We also recommend that the provision for Gilbert Hydro consult with FWS on the design of project transmission line. Table 6 indicates the basis for our preliminary determinations concerning measures that we consider inconsistent with section 10(j).

Table 6. Fish and wildlife agency recommendations for the Gilbert Project (Source: staff).

Recommendation	Agency	Within scope of Section 10(j)	Annualized cost	Adopted?
Revegetate wetland areas using native sedges and rushes instead of Timothy grass	Idaho DFG	Yes	$230	Yes
Consult with FWS on the design of appropriate raptor protection measures for the project transmission line	Idaho DFG	No, consulting with the FWS is not a specific fish and wildlife measure.	$0	Yes
Acquire a water right equal to the amount of water that will be diverted by the project	Idaho DFG	No, acquiring water rights is not a specific fish and wildlife measure.	Unknown	No, however, Commission licenses include a standard article requiring licensees to acquire all rights necessary for operation and maintenance of a project.

5.5 CONSISTENCY WITH COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C., section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. We reviewed five comprehensive plans that are applicable to the Gilbert Hydroelectric Project.[19] No inconsistencies were found.

[19] (1) Idaho Department of Fish and Game. 2001. Fisheries management plan, 2007-2012. Boise, Idaho; (2) Idaho Department of Fish and Game. Bonneville Power Administration. 1986. Pacific Northwest rivers study. Final report: Idaho. Boise, Idaho. 12 pp; (3) Idaho Department of Fish and Game. Idaho Comprehensive Wildlife Conservation Strategy. Boise, Idaho. September, 2005; (4) Idaho Department of Health

6.0 FINDING OF NO SIGNICANT IMPACT

Issuing an original minor license for the Gilbert Hydroelectric Project, with our recommended measures, would provide a source of renewable power. Our recommended measures would protect cultural resources and reduce minor aesthetic effects. Project construction and operation would result in some minor erosion, sedimentation, and turbidity during project construction and initial operation; may create minor long-term effects to aesthetics; and may create temporary noise impacts from construction. Project construction and operation would also increase the potential for raptor collision and electrocution from the new transmission line and would result in minor temporary and permanent vegetation loss.

On the basis of our independent analysis, we find that the issuance of an original license for the proposed Gilbert Hydroelectric Project, with our recommended environmental measures, would not constitute a major federal action significantly affecting the quality of the human environment.

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