



Idaho Department of Environmental Quality

Draft Section 401 Water Quality Certification

June 27, 2024

For the American Falls Hydroelectric Project

(FERC Project No. P-2736-042)

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); 40 C.F.R. 121 and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities licensed by the Federal Energy Regulatory Commission (FERC) and issue water quality certification decisions.

This certification is in response to the Final License Application (hereafter the “Application”) submitted to FERC by the Idaho Power Company (hereafter, the “Company”) on July 20, 2023. In accordance with federal regulations at 40 C.F.R. §§ 121.4, all project proponents must submit a request for a prefiling meeting at least thirty days in advance of submitting a certification request. A prefiling meeting request was received by DEQ on 7/20/2023. To facilitate early engagement and project coordination, DEQ accepted an opportunity to host a prefiling meeting which was conducted on 8/30/2023, to seek clarification as well as to discuss the project and potential information needs. In accordance with 40 C.F.R. §§ 121.5 (b) and (c) and 121.7 (c), DEQ received a water quality certification request on 9/12/2023, which is required for the issuance of a new FERC license authorizing the American Falls Hydroelectric Project (FERC Project No. P-2736-042, hereafter “Project”). The Project is located on the mainstem of the Snake River, approximately 1 mile west of the City of American Falls at river mile 714.1.

On March 21, 2024, DEQ filed a letter with FERC denying certification because the environmental assessment had not yet been completed prior to DEQ’s receipt of the water quality certification request. On April 22, 2024, the Company appealed DEQ’s certification denial by filing a petition for a contested case with the Board of Environmental Quality. On May 1, 2024, the Company notified FERC of the appeal requesting that FERC keep the Application on file. Also on April 22, 2024, FERC issued a Notice to Prepare an Environmental Assessment (EA) which includes a draft schedule for final EA issuance anticipated by April 2025. As a result of the contested case, the Company agreed to develop a Total Dissolved Gass (TDG) Monitoring Plan, submit the TDG Monitoring Plan to FERC within 6 months of license issuance, and upon approval of that plan by FERC, implement the TDG Monitoring Plan. With this assurance, DEQ agreed to finalize a full and complete review of the water quality certification request and

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Application—subject to possible modification based on the findings of the EA related to dissolved oxygen standards found at IDAPA 58.01.02.267.04. If the EA results in significant changes to the Project, then this § 401 water quality certification may require modification upon agreement with FERC to ensure compliance with Idaho’s water quality standards.

Based upon review of the above-referenced Application and other relevant information, DEQ certifies that if the Company complies with the terms and conditions imposed by the FERC license and the conditions set forth in this § 401 water quality certification, then it is reasonable for DEQ to conclude that the Project will comply with water quality requirements, including applicable requirements of the Clean Water Act §§ 301, 302, 303, 306, and 307, Idaho’s “Water Quality Standards” (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

Pursuant to Clean Water Act §§ 401 (a)(1) and 121.7 (d); and IDAPA 58.01.02.052.08, DEQ issued a 30-day public notice on September 18, 2023, to provide notification of certification request receipt and to establish the reasonable period of time for certification. On 6/25/2024 through 8/8/2024, DEQ issued a 45-day public notice to solicit comments on the draft certification. Any public comments received during the 45-day comment period were considered by DEQ to inform the certification decision and conditions.

This certification is specifically for activities related to the FERC license for P-2736-042 and does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the licensee from the obligation to obtain any other necessary approvals, authorizations or permits.

Project Facility and Operation

The current American Falls Dam (“Dam”) is located at river mile 714.1 on the Snake River and was constructed during 1976–1978; it replaced and expanded the original dam constructed during 1925–1927. The Bureau of Reclamation (“Reclamation”) owns and operates the Dam and controls releases from the 1,672,590-acre-foot American Falls Reservoir (“Reservoir”); the State of Idaho administers the associated water rights.

The Project operates in a run-of-release mode, which means it only uses flows released to the Project by Reclamation. More specifically, power generation is incidental to the release of irrigation flow deliveries set by Reclamation and varies seasonally as irrigation demand fluctuates.

The Company’s infrastructure responsibilities start at a coupling pit located downstream of the intakes contained within the Dam and continue downstream to include three 240’ long and 18’ diameter penstocks, three 22.5-megawatt (MW) Kaplan turbine-generator units, and a reinforced concrete powerhouse with associated switch yard. Total project capacity is 67.5 MW and water used for generation is discharged from the powerhouse directly to the Snake River.

The minimum flow required to operate a unit is 750 cubic feet per second (cfs) and the maximum project hydraulic capacity is 16,500 cfs. Flows between this range can be used by the Company to generate power and generally flow through the powerhouse unless prevented by

an outage, maintenance, or the Company needing to utilize spill to maintain compliance with dissolved oxygen (DO) standards found at IDAPA 58.01.02.276.04.

Under the current license, the Company is required to use an atmospheric air (oxygen) injection system to mitigate low DO water that it receives from the Reservoir. This system consists of three atmospheric blowers where one or two blowers are used and the third serves as backup. If the blowers cannot mitigate DO levels alone, the Company can choose to divert a portion of flow over the Reclamation spillway. If DO compliance is still unattainable, the Company can divert all flow over the Reclamation spillway.

Although there is no official minimum or conservation pool, Reclamation attempts to avoid drafting the Reservoir below 50,000 acre-feet when feasible. Sediment mobilization becomes a concern when the reservoir drafts below 100,000 acre-feet of storage. However, certification conditions are limited to the Company's run-of-release activities.

Greater details of the proposed Project development and operations are provided by the Company in the license Application. In accordance with applicable law, the Company shall notify DEQ if FERC authorizes modification to these operations so as to allow DEQ to determine whether such changes may affect compliance with Idaho's water quality standards.

Antidegradation Review

As part of its water quality standards program, Idaho has an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051). DEQ adopted regulations to implement the antidegradation policy (IDAPA 58.01.02.052).

Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).

Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities do not lower water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ employs a water-body-by-water-body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally

approved [DEQ Integrated Report](#) and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The pollutants of concern for this Project are DO and total dissolved gases (TDG). As part of the § 401 water quality certification, DEQ requires the applicant to comply with various conditions to protect water quality and meet Idaho's water quality standards, including the water quality criteria applicable to these pollutants.

Project Area and Receiving Water Body Level of Protection

This Project is located on the mainstem of the Snake River at river mile 714.1 and splits assessment unit (AU) ID17040209SK011_07 Snake River - American Falls Reservoir Dam to Rock Creek downstream of the Dam and AU ID17040206SK001L_0L American Falls Reservoir above the Dam. The *2022 Integrated Report* lists AU ID17040209SK011_07 as unassessed. The Snake River below the dam (ID17040209SK011_07) is designated for cold water aquatic life, primary contact recreation and domestic drinking water supply beneficial uses (DEQ 2022). According to IDAPA 58.01.02 §§ 110 through 160, AU ID17040206SK001L_0L American Falls Reservoir is designated for cold water aquatic life, primary contact recreation and domestic drinking water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

The section of the Snake River from American Falls Dam downstream to Eagle Rock is a popular trout and Smallmouth Bass fishery. This section is noted for quality size trout, many of which are between 16 and 20 inches long. Most trout in this reach are hatchery stocked Rainbow Trout, but a small percent are Brown Trout and native Yellowstone Cutthroat Trout (IDFG 2019).

Additionally, American Falls Reservoir is a popular fishing destination, with an estimated 26,000 Rainbow Trout harvested and 125,000 hours fishing during years when water volume has been sufficient for a multiple age class population to accumulate (IDFG 2019).

Given this information, DEQ will provide Tier I protection for the domestic water supply designated beneficial use and Tier II protection for the cold water aquatic life and primary contact recreation beneficial uses (IDAPA 58.01.02.051.01; 58.01.02.052.05.b).

Protection and Maintenance of Existing Uses (Tier I Protection)

As mentioned above, a Tier I antidegradation review is performed for all new licenses applicable to waters subject to the jurisdiction of the Clean Water Act. This process requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The numeric and narrative criteria in the water quality standards are set at levels that ensure protection of existing and designated beneficial uses.

The pollutants of concern in the project area are DO and TDG. It has been documented that operation of the Project can affect the state's numeric criteria related to temperature, DO, and sediment (IPC 2023). As part of the conditions of this certification, the Company will develop and follow a FERC approved DO and TDG Monitoring Plan to include a study that will address adaptive management to ensure that water quality is protected from exceedances of DO and TDG criteria. These provisions provide reasonable assurance of compliance with the applicable DO, and TDG criteria.

If the Project is conducted according to the provisions of the FERC license and conditions of this certification, then it is reasonable for DEQ to conclude that the Project will comply with the state's numeric and narrative water quality criteria. These criteria are set at levels that protect and maintain existing and designated beneficial uses.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above. The conditions in this certification ensure that the level of water quality necessary to protect both existing and designated uses is maintained and protected in compliance with the Tier I provisions of IDAPA 58.01.02.051.01 and 58.01.02.052.07.

High-Quality Waters (Tier II Protection)

This reach of the Snake River is considered high quality for primary recreation but is not supporting its beneficial uses for cold water aquatic life due to flow regime modification. The water quality relevant to these uses must be maintained and protected, unless lowering water quality is necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the license issuance will affect water quality for each pollutant that is relevant to the aquatic life and recreation uses of the Snake River (IDAPA 58.01.02.052.06). The Company has presented data in the Application indicating substantial compliance with respect to the site-specific DO criteria, but also indicates temperature exceedances are a regular occurrence in the summer and early fall (IPC 2023). Moreover, the Application indicates there are other narrative and numeric criteria that have not been measured or reported to DEQ. These include narrative standards related to floating, suspended, or submerged matter, nutrients concentrations, biological oxygen demand, hydrogen ion concentrations, and turbidity. Total dissolved gas levels are required to remain below 110% of saturation (IDAPA 58.01.02.250 (b)). Due to the lack of available data at the time of certification, it is unclear whether the Project will have a significant effect on how these criteria are affected in the Snake River.

Given this uncertainty regarding the potential water quality effects from the Project, this certification requires the study of temperature, DO, TDG, and sediment (turbidity). The Company, in consultation with DEQ, shall develop a Water Quality Management Plan (WQMP). The Company shall implement, install, maintain, monitor, and adaptively manage permanent best management practices (BMPs) outlined in the WQMP.

The provisions in the FERC license and the conditions of this certification ensure that degradation to the Snake River will not occur. If these conditions are followed, then it is reasonable for DEQ to conclude that this Project complies with the Tier II provisions of IDAPA 58.01.02.051.02, 58.01.02.052.06, and 58.01.02.052.08.

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Upon FERC's issuance of a license to the Company for the Project, the Company shall comply with the § 401 water quality certification conditions outlined below.

Water Quality Monitoring Plan

Required Actions. Within 6 months of the issuance of the FERC license, the Company, with consultation from DEQ, shall develop and have approved a Project Water Quality Monitoring Plan (WQMP). The following conditions outline the required components of the WQMP.

- I. **Total Dissolved Gases Monitoring Plan.** The Company shall develop, in coordination with IDEQ, a Total Dissolved Gas (TDG) Monitoring Plan as a condition of approval of the application for certification under Section 401 of the Clean Water Act. At DEQ's discretion, the TDG Monitoring Plan may be discontinued after 5 consecutive years of data have been collected and reported to DEQ.
 1. The Company shall submit a final TDG Monitoring Plan to FERC, with a copy to IDEQ's Pocatello regional Office, no later than 6 months after FERC issues the license order.
 2. The Company shall implement the TDG Monitoring Plan upon FERC approval.

The TDG Monitoring Plan, at a minimum, shall include the following:

1. TDG monitoring at the location outlined in IDAPA 58.01.02.276.05.
 2. Proposed data collection procedures including description of equipment and methods.
 3. TDG monitoring shall be recorded in 15-minute intervals.
- II. **Dissolved Oxygen Monitoring and Management Plan.** Within 6 months of the issuance of the FERC license for the Project, the Company shall submit for DEQ's approval, a Dissolved Oxygen (DO) Monitoring Plan as part of the WQMP. Once this Plan is approved by DEQ, the Company shall implement the DO Monitoring Plan for the duration of the license. The Company shall implement, install, maintain, monitor, and adaptively manage temporary and permanent DO BMPs directed toward reducing exceedances of the DO criteria to ensure protection of aquatic life and water quality standards. The DO Monitoring Plan, at a minimum, shall include the following:

1. At a minimum, the Company shall monitor DO in at least two representative locations within 10 miles downstream of the Project, including at the location outlined in IDAPA 58.01.02.276.05.
 2. DO monitoring shall be recorded in 15-minute intervals.
 3. Proposed data collection procedures including description of equipment, and methods used for monitoring.
- III. **Temperature and Sediment Monitoring Plan.** Within 6 months of the issuance of the FERC license for the Project, the Company shall submit for DEQ's approval, a Temperature and Sediment Monitoring Plan as part of the WQMP. Once approved by DEQ, the Company shall implement the Temperature and Sediment Monitoring Plan. At minimum, the Temperature and Sediment Monitoring Plan shall include the following components:
1. Monitoring at the location outlined in IDAPA 58.01.02.276.05.
 2. Proposed data collection equipment and procedures.
 3. A proposal for data analysis and reporting frequency.
- IV. **Reporting.** The Company shall provide the following reports to DEQ:
1. **Monthly Reporting.** Submit monthly reports to DEQ via electronic data transmission of maximum daily temp, daily mean turbidity, daily DO instantaneous minimum, DO 7-day mean minimum, DO 30-day mean, TDG daily maximum and any real or perceived excursions from the water quality standards.
 2. **Annual Water Quality Report.** At the end of each calendar year following the issuance of the license for the Project, the Company shall provide an Annual Water Quality Report that includes, but is not limited to, the following from the WQMP:
 - a. A report of the daily maximum in-stream temperatures, daily DO instantaneous minimum, DO 7-day mean minimum, DO 30-day mean, daily mean turbidity, and daily maximum TDG.
 - b. The Company may include a request for DEQ to consider approval of alternative or additional measures related to monitoring. DEQ will review the request based on the following:
 - i. The basis or reasons why the Company considers alternative measures to be necessary or appropriate.
 - ii. A detailed description of the proposed alternative measures.
 - iii. A statement of whether the proposed alternative measures will cause or contribute to a violation of applicable water quality standards.
- V. **Quality Assurance Project Plan.** As part of the WQMP, the Company shall submit, in

consultation with DEQ, a proposal for a comprehensive Quality Assurance Project Plan (QAPP) within 6 months of the issuance of the FERC license.

General Conditions

- A. **Document Submittal and Review Process.** Except as otherwise provided in this certification, the Company shall follow the submittal and review process set forth in this section with respect to all documents required by this certification to be submitted to DEQ for approval, and this process shall be followed until the document is approved by DEQ or the document review time frame has expired.
1. After the Company submits a document, DEQ will (a) notify the Company in writing that the document is approved; (b) notify the Company in writing of any deficiencies in the document; and (c) request revisions, or (d) approve the document.
 2. If DEQ notifies the Company of deficiencies in the document, the Company shall submit a document revised to resolve those deficiencies within 30 calendar days of receipt of the notice.
 3. The submittal process shall be repeated until DEQ notifies the Company that the document is approved. However, the Company's documents shall meet the requirements of this certification no later than 90 days from DEQ's notification of deficiencies and the Company's failure to develop a DEQ approved document within such time frame will be considered a violation of this condition of this certification.
 4. Once documents are approved by DEQ, the Company shall submit these documents to FERC with a request that such documents be incorporated into an enforceable condition as a part of the license.
- B. **Certification Compliance Schedules.** If any event occurs that is beyond the Company's reasonable control and that causes or may cause a delay or deviation in compliance with schedules contained in this certification, the Company shall immediately submit a written notification to DEQ that shall include, but is not limited to, the following information:
- a. The cause of delay or deviation and its anticipated duration;
 - b. The measures that have been or will be taken to prevent or minimize the delay or deviation; and
 - c. The timetable by which the Company proposes to carry out such measures.

In addition, it is the Company's responsibility as part of the written notification to demonstrate that the delay or deviation has been or will be caused by circumstances beyond their control and despite the due diligence of the Company. If the Company so demonstrates, DEQ shall extend the period of performance-related activities

under this condition, as appropriate. Circumstances or events beyond the Company's control include, but are not limited to, acts of nature, unforeseen strikes, work stoppages, fires, explosions, riots, sabotage, or war. The Company may also consider other circumstances or events as beyond the Company's control. These other circumstances or events may include, but not be limited to, changes in state statutes; delays in the receipt of necessary approvals for construction design or permits; or delays that DEQ agrees the Company would not have been expected to anticipate. These other circumstances or events will only be considered if they are not due to the actions or inactions of the Company. Increased cost of performance or consultant's failure to provide timely reports may not be considered circumstances beyond the Company's control.

- C. **§ 401 Certification Modification.** DEQ may modify this certification in agreement with FERC to add, delete, or alter the certification conditions as necessary and feasible if:
1. Changes in conditions regarding operation of the Project from those described in the Application will affect or might affect compliance with water quality standards and requirements;
 2. There are changes to water quality standards, applicable federal laws, other appropriate requirements of state law, or a development of a total maximum daily load (TMDL) for this reach of the Snake River; or
 3. Modifications that are otherwise authorized under state law.
- D. **Project Changes.** The Company shall notify DEQ of any change in ownership, scope, or operation of the Project. The Company shall obtain DEQ's review and approval before undertaking any change to the Project that might significantly affect water quality, including but not limited to changes to Project structures, construction, operations, and flows.
- E. **Project Repair or Maintenance.** The Company shall obtain DEQ's review and approval before undertaking Project repair or maintenance activities that might significantly affect water quality. DEQ may, at the Company's request, approve specified repair and maintenance activities on a periodic or ongoing basis.
- F. **Project Inspection.** The Company shall allow DEQ such access as necessary to inspect the Project area and Project records required by this certification at reasonable times as necessary to monitor compliance with certification conditions and applicable water quality standards.
- G. **Posting of § 401 Certification.** The Company shall post a copy of these certification conditions in a prominent location at the Project powerhouse
- H. **Water Quality Standards Compliance.** Notwithstanding the conditions of this certification, no waste shall be discharged, and no activities shall be conducted which will violate state water quality standards. If water quality standards for DO or TDG are exceeded at the designated point of compliance in the river identified in the approved

monitoring plan, the Company shall implement Best Available Technology (BAT) that is technically feasible to address the issue to bring the facility operations back into compliance.

Required Notification

The Company shall notify the Pocatello Regional Office if there is a change in ownership, scope, or operation, or if the project is undertaking any repair or maintenance activities that may significantly affect water quality by contacting Jennifer Cornell at (208) 239-5021 or by email at jennifer.cornell@deq.idaho.gov.

Right to Appeal Final Certification

The final § 401 water quality certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to the Pocatello Regional Office (208) 236-6160.

DRAFT

Katie Bergholm
Regional Administrator
Pocatello Regional Office

References

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