



# Idaho Department of Environmental Quality

## Final Section 401 Water Quality Certification

August 18, 2023

**For the County Line Road Hydroelectric Project**

**(FERC Project No. P-14513-003)**

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act or "CWA"), as amended, 33 U.S.C. Section 1341(a)(1), 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 (the "Application") submitted to FERC on September 29, 2020, by the Idaho Irrigation District and New Sweden Irrigation District (the "Districts"). DEQ received a water quality certification request on October 8<sup>th</sup>, 2022, pursuant to CWA Section 401, for the issuance of a new FERC license authorizing operation of the County Line Hydroelectric Project, FERC Project No. 14513-003, (the "Project"). The Project is located on the mainstem of the Snake River, approximately 10 miles north of the city of Idaho Falls.

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

This certification is specifically for activities related to FERC license P-14513-003 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 permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

### **Proposed Project Facility and Operation**

The proposed Project will be a run-of-the-river hydroelectric facility using an existing diversion dam (latitude 43.636286, longitude -112.059503), which diverts water from the Snake River into the Idaho Canal and Great Western Canal. The proposed modifications to the Idaho Canal include, but are not limited to:

- enlargement of canal walls to accommodate and increase capacity (1,900 cfs);
- installation of automated controls on the existing headgates; and
- construction of a powerhouse with a Kaplan turbine-generator unit with capacity of 1.23 megawatts (MW).

The proposed modifications to the Great Western Canal include, but are not limited to:

- enlargement of canal walls to accommodate increased capacity (1,300 cfs);
- removal of the lower set of canal spillback gates;
- construction of a new building over the existing head gates; and
- construction of a powerhouse approximately 3.5 miles down the canal. This powerhouse will also have Kaplan turbine-generator unit with a capacity of 1.26 MW. The operating range of each turbine would be a minimum of 300 cfs and a maximum of 1,000 cfs.

The FERC Environmental Assessment (FERC 2023) recommends the Districts:

*release a continuous minimum flow over the project diversion dam into the bypassed reach of 3,500 cfs from May through August; 2,500 cfs in September and October; and 1,500 cfs from November through April, or inflow if less, to protect recreational boating opportunities and brown trout spawning habitat availability (instead of 1,000 cfs year-round as proposed by the Districts).*

Additional details of the proposed Project development and operations are in the Application. In accordance with applicable law, the Districts 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 tiers of protection to water bodies in Idaho (IDAPA 58.01.02.051). DEQ has adopted regulations to implement those antidegradation policies (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). 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 and highest level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities do not degrade water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

## **Pollutants of Concern**

The pollutants of concern for this Project are temperature, dissolved oxygen (DO), and sediment. As part of the Section 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 within the Idaho Falls subbasin assessment unit (AU) Snake River - Dry Bed Creek to river mile 79 (ID17040201SK001\_04). This AU is designated for the following beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and 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).

DEQ employs a water-body-by-water-body approach to implementing Idaho's antidegradation policy. 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). The 2022 Integrated Report (DEQ 2022) lists this AU as unassessed. However, there are other data sources that suggest the high-quality nature of this water body.

This section of the Snake River hosts a popular recreational fishery with a trophy wild trout component (IDFG 2019). The trout population is composed of brown trout, rainbow trout, and Yellowstone cutthroat trout, and this reach of the Snake River supports natural spawning for these salmonid species (Schoby et al. 2013). Given this information, DEQ will provide Tier I protection for the domestic water supply designated beneficial use and both Tier I and Tier II protection for the cold water aquatic life, salmonid spawning, 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, Tier I 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 temperature, DO, and sediment. It is currently unclear how the Project will, if at all, affect potential violations of the State's numeric criteria related to temperature, DO, and sediment. As part of this certification, a study of temperature, DO, and sedimentation is required. These provisions provide reasonable assurance of compliance with the applicable temperature, DO, and sediment criteria.

During the construction phase, the applicant will implement, install, maintain, monitor, and adaptively manage best management practices (BMPs) directed toward reducing erosion and minimizing turbidity levels in receiving water bodies downstream of the Project. One resource to evaluate appropriate BMPs is the *Idaho Catalog of Storm Water Best Management Practices* (DEQ 2020). Other resources may also be used for selecting appropriate BMPs. Moreover, BMPs are further described in the conditions section of this certification. 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 criteria.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above. The permit ensures 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 cold water aquatic life, salmonid spawning, and primary contact recreation. 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 permit 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 Districts presented data in the Application collected by the United States Geological Survey (USGS) and the City of Idaho Falls that show DO concentrations in nearby reaches of the Snake River typically stay well above 6.0 mg/L. Temperature data collected by the Districts (2014-2016) show cold water aquatic life and salmonid spawning temperature criteria were regularly exceeded in this reach of the river. At the time of writing, it is unclear whether the Project will have a significant effect on temperature, DO, and sediment dynamics in the Snake River.

Given the uncertainty regarding the potential water quality effects from the Project, this certification requires the study of temperature, DO, sediment, and indicators of cold water aquatic life in the Snake River and how the Project influences these parameters. After water quality data is collected, both before and after the construction and operation of the Project, the Districts—in consultation with DEQ—will develop a Water Quality Management Plan (WQMP). The Districts must implement, install, maintain, monitor, and adaptively manage permanent 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 will comply 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 Districts for the Project, the Districts must comply with the Section 401 Water Quality Certification conditions outlined below.

### **Water Quality Monitoring Plan**

**Required Actions.** Within 90 days of the issuance of the FERC license, the Districts, with consultation from DEQ, must develop a DEQ-reviewed Project Water Quality Monitoring Plan (WQMP). The following conditions outline the required components of the WQMP.

- I. **Temperature Monitoring Plan.** The Districts shall monitor in-stream temperatures before the development of the Project, during construction of the Project, and after construction of the Project. Within 90 days of the date of FERC's issuance of a license for the Project, the Districts shall submit to DEQ for approval, a Temperature Monitoring Plan as part of the WQMP. Once approved by DEQ, the District shall implement the Temperature Monitoring Plan. The Districts may submit proposed revisions to the Temperature Monitoring Plan and, if approved by DEQ, shall implement the revised plan in accordance with the approval. At minimum, the Temperature Monitoring Plan shall include the following components:
  1. Proposed continuous temperature monitoring locations.
  2. Proposed data collection equipment and procedures.
  3. A proposal for data analysis and reporting frequency.
- II. **Dissolved Oxygen Monitoring Plan.** Within 90 days of the issuance of a FERC license for the Project, the Districts shall submit for DEQ's approval, a DO Monitoring Plan as part of the WQMP. Once this Plan is approved by DEQ, the Districts shall implement the DO Monitoring Plan. The DO Monitoring Plan, at a minimum, must include the following:
  1. Identification of DO continuous monitoring locations. At a minimum, the Districts must monitor DO in representative locations in the Snake River upstream of the Project, within the bypassed reach of the Project, and below the Project; and before and after Project operations commence.
  2. Identification of downstream monitoring locations for intergravel dissolved oxygen. The Districts shall monitor for intergravel DO below the Project at sampling locations

that include, at a minimum, two sampling locations within 10 miles downstream of the Project.

3. Proposed data collection procedures including description of equipment, methods and frequency of monitoring.
- III. **Biotic Condition Monitoring Plan.** DEQ uses invertebrate, fish, and habitat data to calculate multimetric index scores, which are subsequently used to calculate site condition rating that are used for assessing Cold Water Aquatic Life beneficial use support (DEQ 2016). Following the *Beneficial Use Reconnaissance Program Field Manual for Rivers* (DEQ 2013), the Districts shall collect biotic condition data before the development of the Project and after construction of the Project. Within 90 days of the date of FERC's issuance of a license for the Project, the Districts shall submit to DEQ for approval a Biotic Condition Monitoring Plan, as part of the WQMP. Once approved by DEQ, the Districts shall implement the Biotic Condition Monitoring Plan. The Districts may submit proposed revisions to the Biotic Condition Monitoring Plan and, if approved by DEQ, shall implement the revised plan in accordance with the approval. The Biotic Condition Monitoring Plan shall include the following components:
1. Biotic condition monitoring locations. To establish current conditions and assess the impact of the Project on cold water aquatic life, monitoring sites shall be located within reaches of the Snake River most likely to be affected by the Project (e.g., in one of the most prominent of the three major side channels that will be largely dewatered during proposed winter flows). In addition, monitoring sites should be selected in the Snake River at upstream and downstream locations of the Project.
  2. Proposed data collection equipment and procedures.
  3. Proposed frequency of monitoring.
- IV. **Sediment Monitoring and Management Plan.** The Districts must provide DEQ a copy of their Erosion and Sediment Control Plan and Revegetation Plan. The Districts must implement, install, maintain, monitor, and adaptively manage temporary and permanent erosion and sediment control BMPs directed toward reducing sediment and stabilizing erosion to minimize turbidity and ensure protection of aquatic life and water quality standards.
1. Within 90 days of the issuance of a FERC license for the Project, the Districts shall submit for DEQ's approval a Sediment Monitoring and Management Plan, as part of the WQMP. Upon DEQ approval, the Districts shall implement the Sediment Monitoring and Management Plan. The Sediment Monitoring and Management Plan, at a minimum, must include the following:
  2. Identification of sediment monitoring location(s). At minimum, the Districts must monitor lateral erosion below the project in at least one cross-section site,

downstream of the Project. Site(s) should be selected to allow safe access for repeated measurements to take place.

3. Proposed data collection procedures including description of equipment, methods, and frequency of monitoring. At minimum, annual lateral bank erosion below the Project must be estimated before and after completion of the Project.

V. **Reporting.** The Districts shall provide the following reports to DEQ:

1. Annual Water Quality Reports. At the end of each calendar year following the issuance of the license for the Project, the Districts 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 water temperatures, DO concentrations, biotic condition monitoring, and annual erosion rates.
  - b. The Districts may include a request for DEQ to consider approval of alternative or additional measures. DEQ will review the request based on the following:
    - i. The basis or reasons why the Districts consider 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.

2. Any violation of water quality standards shall be reported to the DEQ regional office immediately.

VI. **Quality Assurance Project Plan.** As part of the WQMP, the district will submit, in consultation with DEQ, a proposal for a comprehensive Quality Assurance Project Plan (QAPP).

## General Conditions

A. **Document Submittal and Review Process.** Except as otherwise provided in this certification, the Districts 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 the DEQ or the document review time frame has expired.

1. After the Districts submit a document, DEQ will (a) notify the Districts in writing that the document is approved; (b) notify the Districts in writing of any deficiencies in the document; or (c) modify or revise the document and approve the document.

2. If DEQ notifies the Districts of deficiencies in the document, the Districts shall submit a revised document to resolve the identified deficiencies within 30 calendar days of receipt of the notice.
3. The submittal process shall be repeated until the DEQ notifies the Districts that the document is approved. However, the Districts' documents shall meet the requirements of this certification no later than 90 days from the DEQ's notification of deficiencies and the Districts' 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 reviewed by DEQ, the Districts shall submit these documents to FERC with a request that such documents be incorporated into and enforceable as a part of the license.

B. **Certification Compliance Schedules.** If any event occurs that is beyond the Districts' reasonable control and that causes or may cause a delay or deviation in compliance with schedules contained in this certification and the required plans, the Districts shall immediately submit a written notification to DEQ that shall include, but is not limited to, the following information:

1. The cause of delay or deviation and its anticipated duration;
2. The measures that have been or will be taken to prevent or minimize the delay or deviation; and
3. The timetable by which the Districts proposes to carry out such measures.

In addition, it is the Districts' responsibility in the written notification to demonstrate to the DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the control and despite due diligence of the Districts. If the Districts so demonstrate, the DEQ shall extend times of performance of related activities under this condition, as appropriate. Circumstances or events beyond the Districts' control include, but are not limited to, acts of nature, unforeseen strikes, work stoppages, fires, explosion, riot, sabotage, or war. The Districts may also consider other circumstances or events as beyond the Districts' 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 Districts 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 Districts. Increased cost of performance or consultant's failure to provide timely reports may not be considered circumstances beyond the Districts' control.

C. **§ 401 Certification Modification.** DEQ may request, at any time, that FERC reopen the license to consider modifications to the license necessary to assure compliance with Idaho water quality standards. DEQ may also modify this certification 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 that 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 TMDL for this reach of the Snake River; or
  3. Modifications are otherwise authorized under state law.
- D. **Project Changes.** The Districts shall notify DEQ of any change in ownership, scope, or operation of the Project. The Districts 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 Districts shall obtain DEQ's review and approval before undertaking Project repair or maintenance activities that might significantly affect water quality. DEQ may, at the Districts request, approve specified repair and maintenance activities on a periodic or ongoing basis.
- F. **Project Inspection.** The Districts 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 Districts shall post a copy of these certification conditions in prominent locations at each of the Project powerhouses.
- H. **Water Quality Standards Compliance.** Notwithstanding the conditions of this certification, no wastes shall be discharged and no activities shall be conducted which will violate state water quality standards.

**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 Idaho Falls Regional Office (208) 528-2650.



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Regional Administrator  
Idaho Falls Regional Office

## References

- DEQ. 2013. *Beneficial Use Reconnaissance Program Field Manual for Rivers*. Boise, ID: DEQ.
- DEQ. 2016. *Water Body Assessment Guidance*. 3<sup>rd</sup> Edition. Boise, ID: DEQ.  
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- IDFG (Idaho Department of Fish and Game). 2019. *Fisheries Management Plan*. 2019 – 2024. Boise, ID.
- RSET (Northwest Regional Sediment Evaluation Team). 2018. *Sediment Evaluation Framework for the Pacific Northwest*. Prepared by the RSET Agencies.
- Schoby, G., B. High, D. Garren, and J. Fry. 2013. *Fishery Management Annual Report, Upper Snake Region 2009*. Idaho Department of Fish and Game Report 13-117, Boise, ID.