

145 FERC ¶ 62,220
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1 of Douglas County,
Washington

Project No. 2149-167

ORDER APPROVING LAMPREY ENTRANCE EFFICIENCY STUDY PLAN
PURSUANT TO LICENSE ARTICLE 401

(Issued December 20, 2013)

1. On October 11, 2013, Public Utility District No. 1 of Douglas County, Washington (licensee) filed, for Federal Energy Regulatory Commission (Commission) approval, a lamprey entrance efficiency study plan (plan) for the Wells Hydroelectric Project. The plan is required by Article 401 of the Commission's November 9, 2012 Order Issuing New License.¹ The Wells Hydroelectric Project is located on the Columbia River in Douglas, Okanogan, and Chelan Counties, Washington, and partially occupies federal lands administered by the U.S. Department of the Interior and U.S. Army Corps of Engineers.

LICENSE REQUIREMENTS AND BACKGROUND

2. Article 401, which incorporates the requirements of the Washington Department of Ecology's Water Quality Certification Condition 6.5 and the U.S. Fish and Wildlife Service's Section 18 Fishway Prescription Number 5.6.2 into the project license, requires the licensee to file a lamprey entrance efficiency study plan for Commission approval. The plan must describe the licensee's methods for evaluating operational and physical ladder entrance measures intended to increase passage of Pacific lamprey (*Entosphenus tridentatus*) into the adult fishway without significantly impacting the passage of adult salmonids. The plan must include a record of consultation with the National Marine Fisheries Service (NMFS) and members of the Aquatic Settlement Working Group (ASWG).² The plan is due to the Commission within one year of issuance of the project license, or November 9, 2013.

¹ 141 FERC ¶ 62,104.

² The Aquatic Settlement Working Group consists of at least one representative from each of the following agencies and organizations: U.S. Fish and Wildlife Service,
(continued)

3. Due to increased regional interest in Pacific lamprey migratory behavior, the licensee initiated a number of studies aimed at identifying potential areas of improvements to adult lamprey passage. The licensee conducted radio telemetry studies in 2004, 2007, and 2008. Using the results of these studies, the licensee consulted with the ASWG to conduct studies in 2009 and 2010 to determine if temporary velocity reductions at the fishway entrances would improve the attraction and relative entrance success of adult lamprey at the project fishways. The results suggest that lower head conditions and reduced head differentials would improve entrance efficiency for adult lamprey. In 2013, the licensee conducted another study to evaluate the effects on project operations on lamprey passage behavior and to improve lamprey enumeration at the fishway count window areas. Unlike prior studies, the licensee varied picket spacing in the ladder to attempt to guide adult lamprey through existing fish count stations. The licensee anticipates completing its analyses in early 2014.

LICENSEE'S PROPOSED PLAN

4. The licensee's plan describes further methods to evaluate potential operational and physical ladder entrance modifications to create an environment at the fishway entrances that is conducive to adult lamprey passage without negatively impacting passage of adult salmonids. The plan includes a strategy to identify potential problem areas negatively impacting lamprey entrance efficiency, and incorporates current and emerging information regarding modifications at other Columbia River hydropower projects. The licensee additionally specifies that each aspect of the plan involves consultation with the ASWG. The proposed plan includes a provision that allows the ASWG to request additional studies if insufficient data exists to identify and mitigate specific problem areas, or if fishway operating conditions are suspected to be negatively impacting adult lamprey passage.

5. In support of the plan, the licensee proposes potential operational and structural modifications, primarily the reduction of head differential in the collection gallery. The licensee would implement head reduction modifications during peak lamprey migration activity, which is typically between dusk and early morning. Structural modifications would be modeled off of successful modifications enacted at other regional hydroelectric projects, including rounding sill edges, installing attachment plates or ramps, and installing baffles.

Washington State Department of Ecology, Washington Department of Fish and Wildlife, Confederated Tribes of the Colville Reservation, Confederated Tribes and Bands of the Yakama Nation, and the licensee. The Bureau of Land Management has elected to waive regular participation, but it receives all documents and reserves the right to participate as desired. The Bureau of Indian Affairs participates intermittently as an observer, but it receives all documents and reserves the right to participated as desired.

6. The licensee would consult with the ASWG to develop additional study plans, as deemed necessary by the licensee or the ASWG, to assess the effectiveness of each potential modification. The licensee would gain approval from the ASWG and NMFS before filing any additional plans or modifications with the Commission for approval.

7. After making any modifications, the licensee would evaluate the effects of the modifications, using appropriate statistical methods based on variables quantifying lamprey entrance efficiency and passage time. The evaluations would also look for any statistically significant effects on salmon, steelhead, and bull trout passage at the project.

8. The plan acknowledges that the Settlement Agreement³ requires the licensee to exhibit steady progress towards improving adult lamprey passage until it is determined to be comparable to other mid-Columbia River hydroelectric projects. Subsequently, the licensee would continue to implement its plan until this requirement is met. Additionally, the licensee would participate in Pacific lamprey work groups in order to support regional conservation efforts and facilitate the sharing of potentially beneficial information on lamprey behavior. The licensee would report on all activities under the plan as part of its Pacific Lamprey Management Plan⁴ annual report, as previously required under Attachment D of the Settlement Agreement and Article 406.

CONSULTATION

9. On June 12 and July 10, 2013, the licensee hosted conference call with the ASWG to discuss the plan. During the June 12 call, the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) requested that the analyses conducted under the plan attempt to incorporate all available lamprey-dam interaction data, and that the plan include consideration for the potential effects to salmonid populations. The licensee incorporated the comments, and provided the draft plan to the ASWG and NMFS for review via electronic communication on August 9, 2013.

10. The U.S. Fish and Wildlife Service (FWS), on September 5, 2013, requested that licensee include an implementation flow chart to track the progress of the study, which the licensee included. The FWS also recommended that tributary monitoring be included in the plan. The licensee explained that any tagged lamprey would likely be detected on previously installed tributary arrays; therefore, no further action would be necessary

³ The May 27, 2010 filing with the Commission was accepted and incorporated into the Commission's November 9, 2012 Order Issuing New License.

⁴ The Pacific Lamprey Management Plan was filed with the Commission as part of the May 27, 2010 Settlement Agreement, and incorporated into the Commission's November 9, 2012 Order Issuing New License as a requirement under Article 406.

under the plan to incorporate this comment. The ASWG approved the plan on September 11, 2013.

DISCUSSION AND CONCLUSION

11. The plan fulfills the requirements of Article 401 as it describes methods for evaluating operational and physical ladder entrance measures aimed at increasing lamprey passage into the adult fishway without significantly impacting the passage of adult salmonids. The licensee's plan describes a strategy to identify problem areas that may be negatively impacting lamprey entrance efficiency and minimize the impacts through structural or operational modifications. Finally, the plan encourages resource agency involvement, and provides opportunities for the agencies to request additional studies if they are needed.

12. The licensee's proposed lamprey entrance efficiency study plan for the Wells Hydroelectric Project should be approved.

The Director orders:

(A) Public Utility District No. 1 of Douglas County, Washington's lamprey entrance efficiency study plan, filed October 11, 2013 pursuant to Article 401 of the Wells Hydroelectric Project No. 2149, is approved.

(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and the Federal Energy Regulatory Commission's regulations at 18 CFR § 385.713 (2013). The filing of a request for hearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Thomas J. LoVullo
Chief, Aquatic Resources Branch
Division of Hydropower Administration
and Compliance