

COVER SHEET

FEDERAL ENERGY REGULATORY COMMISSION

**FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE LEWIS RIVER PROJECTS**

Docket Nos. P-2071-000, et al.

Executive Summary

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FEIS

EXECUTIVE SUMMARY

PacifiCorp filed license applications with the Federal Energy Regulatory Commission (Commission or FERC) for the Swift No. 1 (FERC No. 2111) and Merwin (FERC No. 935) projects, and the Public Utility District No. 1 of Cowlitz County (Cowlitz PUD) filed a license application for the Swift No. 2 Project (FERC No. 2213) on April 28, 2004. PacifiCorp also filed a license application for the Yale Project (FERC No. 2071) on May 5, 1999. The applicants are seeking new licenses to continue to own, operate, and maintain the four hydroelectric projects, located on the North Fork Lewis River in Cowlitz, Clark, and Skamania counties, Washington. The 2004 applications included a multi-project preliminary draft environmental assessment (PDEA).

On December 3, 2004, the applicants filed a comprehensive Settlement Agreement (SA) with the purpose of resolving all issues related to the relicensing of the four Lewis River Projects. The applicants' proposed action is to relicense the projects in accordance with the terms of the SA. Included with the SA filing was a supplemental PDEA that updated the environmental analysis for the proposed action.

In this multiple-project final environmental impact statement (EIS), we analyze and evaluate the environmental effects associated with the issuance of new licenses for the existing hydropower projects and recommend conditions for inclusion in any licenses issued. For any license issued, the Commission must determine that the project adopted will be best adapted to a comprehensive plan for improving or developing the waterway. In addition to the power and development purposes for which licenses are issued, the Commission must give equal consideration to energy conservation and the protection and enhancement of fish and wildlife, aesthetics, cultural resources, and recreational opportunities. This final EIS for the Lewis River Projects reflects the staff's consideration of these factors.

A major goal of the SA is the restoration of anadromous salmonids to the Lewis River Basin "to achieve genetically viable, self-sustaining, naturally reproducing, harvestable populations above Merwin dam greater than minimum viable populations" (section 3.1 of the SA). Thus, we recommend several fish passage and aquatic enhancement measures that are proposed for all the Lewis River Projects. These measures include:

- Improvements to the existing Merwin Project adult salmon and steelhead collection and transport facility.
- Installation of modular surface collectors for downstream passage of salmon and steelhead smolts at the Merwin, Yale, and Swift No. 1 projects.
- Installation of adult salmon and steelhead collection and transport facilities at the Yale and Swift No. 2 projects.

- Installation of upstream and downstream passage facilities for bull trout at the Merwin, Yale, and Swift projects in the event that the anadromous fish passage facilities are not constructed.
- Provision of minimum flows from the Swift No. 2 power canal into the Lewis River bypassed reach.
- Construction of an enhanced habitat side channel next to the Lewis River bypassed reach.
- Provision of seasonally adjusted minimum flows, ramping rate restrictions, and plateau operations downstream of Merwin dam.
- Habitat enhancement measures, including programs to store and place large woody debris in selected locations.
- Upgrades to and continued maintenance of the three Lewis River hatcheries, with an increase in the hatchery production of salmon, steelhead, and resident species.
- A supplementation program in which fish in excess of hatchery production are released in the upper watershed to spawn and rear naturally.
- A comprehensive monitoring program to review the results and assess the status of the fisheries restoration efforts.
- Measures under the Aquatics Fund associated with project effects, to support habitat enhancement and fish recovery efforts.
- A gravel augmentation program – To include monitoring to determine baseline gravel availability downstream of Merwin dam, with a program for supplementation if monitoring shows levels are decreasing over the current baseline.

The SA also includes proposed measures for terrestrial resources, recreation, flood management, cultural resources, and socioeconomics. Major measures proposed and that we recommend include:

- The acquisition and protection of lands in the basin for wildlife habitat (the Yale Land Acquisition and Habitat Protection Fund, the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund, and the Lewis River Land Acquisition and Habitat Enhancement Fund).
- Development and implementation of Wildlife Habitat Management Plans (WHMPs) for existing and new lands acquired for wildlife management.
- Continued maintenance and improvements to recreational facilities on Swift reservoir, Yale Lake, and Lake Merwin.

- Development of a fishing access site on Swift No. 2 power canal.
- Investigation for the location for the proposed barrier-free bank fishing facility either below Merwin dam or on Swift reservoir, Yale Lake, or Lake Merwin.
- Improvements to visitor management controls on project recreational lands.
- Dedication of 70,000 acre-feet for flood control storage in the Swift reservoir, Yale Lake, and Lake Merwin, along with establishment of high runoff procedures, improved emergency notification, and funding for improved flow information.
- Implementation of a Historic Properties Management Plan and other measures to protect cultural resources.
- Development of a Visitor Information Center in the town of Cougar.

In addition to the above measures, we also recommend that many of the plans and specific measures for implementation be filed with the Commission for approval to allow Commission staff to monitor compliance with the conditions of the licenses and to review the results of many of the studies and measures to be implemented by PacifiCorp and Cowlitz PUD. In addition to the applicant-proposed project-related environmental measures listed above, we recommend including the following staff-recommended measures in any licenses issued for these projects:

- In the event that proposed fish passage facilities are not feasible or appropriate, and the licensees elect to implement measures in lieu of fish passage, prepare, for Commission approval, a report that presents the rationale for how the decision to forego fish passage was made, and a plan that describes the procedures for determining which specific measures in lieu of fish passage would be implemented and how those measures would provide a demonstrated benefit to resources affected by project structures or operations. The licensees would also file annual plans for Commission approval describing all plans and measures in lieu of fish passage proposed for funding in the following year.
- Including any lands acquired with the habitat acquisition and protection/enhancement funds, and all other lands to be managed under the WHMPs, within the project boundaries.
- Including the proposed Visitor Information Center, to be located in the town of Cougar, in the project boundary for one of the projects (the Yale Project would be in closest proximity).
- Developing the proposed new barrier-free shoreline fishing site within the project boundary of the project where it is to be located.

However, we do not recommend that all measures in the SA be included as conditions of any licenses issued for the Lewis River Projects. We do not recommend some of these measures because they (1) do not appear to have a clear nexus to the projects (are not tied to either project effects or purposes), (2) are located outside of the project boundaries, or (3) appear to be general measures that should be the responsibility of other governmental agencies. PacifiCorp and Cowlitz PUD may still elect to provide these measures as terms of the SA, but we do not recommend them as license conditions. These measures include:

- The In Lieu Fund - A contingency fund that may or may not occur, would depend on decisions made by other agencies, and it is not known what measures would be implemented under the fund.
- Funding law enforcement by providing funds to the appropriate agency to support three additional marine- and land-based full-time equivalent law enforcement officers - Law enforcement in the project area is the responsibility of county, state, and federal agencies.
- Improvements to five river access sites outside of the Merwin Project boundary along the lower Lewis River - There is no physical nexus between the lower river sites and the Merwin Project, located 5 miles upstream.
- Providing funding to the U.S. Department of Agriculture, Forest Service (Forest Service) for managing dispersed camping sites outside of the project boundaries – Other proposed measures in the SA would be sufficient to address camping use during peak-use periods.
- Providing funding to the Forest Service for maintenance of Forest Road 90 – Although the road may provide access to the Swift No. 1 and Swift No. 2 projects, it is a multipurpose road maintained by the Forest Service and is not a project facility.

Overall, most of the environmental measures proposed by the applicants under the SA, along with additional staff-recommended measures, would protect and enhance water quality and fishery, terrestrial, land use, aesthetics, recreational, and cultural resources. In addition, the electricity generated from the projects would be beneficial because it would continue to reduce the use of fossil-fueled, electric generating plants; conserve non-renewable energy resources; and continue to reduce atmospheric pollution.

Under the no-action alternative, the Lewis River Projects would have the following annual generation and net annual benefits:

- Swift No. 1—657,514 megawatt-hours (MWh) and \$12,304,800 (18.71 mills/kilowatt-hour [kWh]);

- Swift No. 2—217,299 MWh and \$2,192,800 (10.09 mills/kWh);
- Yale—551,250 MWh and \$13,356,700 (24.23 mills/kWh); and
- Merwin—506,642 MWh and \$9,203,900 (18.17 mills/kWh).

Under the proposed action, the Lewis River Projects would have the following annual generation and net annual benefits:

- Swift No. 1—653,640 MWh and \$-324,300 (-0.50 mills/kWh);
- Swift No. 2—215,938 MWh and \$1,583,700 (7.33 mills/kWh);
- Yale—551,250 MWh and \$7,487,900 (13.58 mills/kWh); and
- Merwin—506,642 MWh and \$4,788,600 (9.45 mills/kWh).

Under the proposed action with staff modifications, the Lewis River Projects would have the following annual generation and net annual benefits:

- Swift No. 1—653,640 MWh and \$-241,000 (-0.37 mills/kWh);
- Swift No. 2—215,938 MWh and \$1,591,800 (7.37 mills/kWh);
- Yale—551,250 MWh and \$7,534,500 (13.67 mills/kWh); and
- Merwin—506,642 MWh and \$4,887,300 (9.65 mills/kWh).

Based on our independent analysis of the Lewis River Projects, including our consideration of all relevant economic and environmental concerns, we conclude that the Swift No. 1, Swift No. 2, Yale, and Merwin projects as proposed by PacifiCorp and Cowlitz PUD along with staff's modification to those proposals would be best adapted to a comprehensive plan for the proper use, conservation, and development of the Lewis River.

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