ORDER MODIFYING AND APPROVING LAKE
CHELAN FISHERY PLAN, ARTICLE 404

(Issued December 04, 2007)

On November 6, 2007, Public Utility District No. 1 of Chelan County (licensee) filed its Lake Chelan Fishery Plan pursuant to Article 404 of the Order Issuing New License issued November 6, 2006 \(^1\) for the Lake Chelan Hydroelectric Project. The project is located on the Chelan River in Chelan County, Washington.

BACKGROUND AND LICENSE REQUIREMENTS

License Article 404 requires the licensee to file for Commission approval, a Lake Chelan Fishery Plan to restore and enhance, where feasible, native fisheries in Lake Chelan and its tributaries and to support the lake’s recreational sport fishery. In addition to the measures set forth in Article 6 of the Lake Chelan Settlement Agreement (SA), the plan is required to include the following measures for the plan components below:

(a) Tributary Barrier Removal. A detailed description of the methods to be employed to determine if the alluvial barriers re-form and a schedule for implementing the monitoring plan.

(b) Fish Stocking Plan. A detailed stocking plan, developed to maintain the recreational sport fishery and promote the recovery of native west slope cutthroat trout in Lake Chelan and its tributaries, that includes, but is not limited to: (1) a provision for stocking of 5,000 pounds of salmonid fingerlings and 33,000 pounds of catchable-size salmonids in Lake Chelan and its tributaries; (2) a description of the stocking locations and species; (3) an implementation schedule; and (4) a provision and schedule for an annual review and revision of the stocking plan and management objectives with the National Park Service (NPS), U.S. Forest Service (FS), U.S. Fish and Wildlife Service (FWS), National Marine Fishery Service (NMFS), Washington Department of Fish and

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\(^1\) 117 FERC & 62,129 (2006)
Wildlife (WDFW), Washington Department of Ecology (WDOE), Confederated Tribes of the Colville Reservation (CCT), Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), City of Chelan, and the Lake Chelan Sportsman’s Association (LCSA). The licensee is required to file the annual report with the Commission 30 days following the review by the consulted entities. The annual report is required to include any recommendation for reducing or eliminating the stocking program and any recommended fish enhancement measures to be implemented in place of stocking, and approved by the Commission prior to implementing.

(c) Entrainment Sampling Plan. An entrainment sampling plan designed to determine the potential for entrainment of adult westslope cutthroat trout at the project intakes. The entrainment sampling plan is required to include a description of: (1) the methods that would be used to enumerate westslope cutthroat trout in the vicinity of the project intakes, including a schedule of sampling events and (2) the conditions that would trigger entrainment sampling and how the licensee will determine when those conditions have been met. This plan is required to be filed for Commission approval at least one year prior to its planned implementation. Annual results of any entrainment sampling are required to be compiled in a final report and filed with the Commission no later than March 1 of the subsequent year. The report is required to contain any recommendations for continued sampling, or other studies to evaluate entrainment of cutthroat trout.

The licensee is required to prepare the plan in consultation with the entities listed under (b) above. The licensee shall allow a minimum of 30 days for the agencies and the Lake Chelan Fishery Forum (LCFF) to comment and to make recommendations before filing the plan with the Commission. If the licensees do not adopt a recommendation, the filing shall include the licensee’s reasons, based on project-specific information.

LICENSEE’S PLAN

The licensee states that the components of their plan are: (1) food web model development; (2) monitoring and evaluation program implementation; (3) tributary barrier removal; (4) fish stocking; (5) entrainment sampling; and (6) large woody debris collection. The goals of the licensee’s plan are to: (a) provide guidance for the management of the fishery resources in Lake Chelan; (b) protect native fish populations while maintaining a healthy recreational sport fishery in Lake Chelan; and (c) develop a monitoring and evaluation program to assess the efficacy of management actions. The

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2 The LCFF consists of: WDFW, FS, NPS, FWS, CCT, WDOE, LCSA, City of Chelan, and CTUIR.
licensee states that their plan depends on coordination among the management agencies with authority over fishery resources in Lake Chelan.

**Food Web Model Development**

The licensee plans to use a bioenergetically-based food web model as a tool for evaluating impacts of species interactions, production potential, and environmental conditions with temporal, spatial, and size-structured framework in accordance with SA Article 6(a). Information gathered from the model would be used by fishery managers to evaluate current and/or proposed fish stocking strategies and management regulations within the context of ecological feedback from the lake food web. The licensee states that the initial phase of development for the food web model was conducted by the University of Washington and field sampling was conducted between August 2004 and August 2006. The licensee states that recommendations from the initial phase of development would be addressed in the model development, scheduled to begin in 2008.

**Monitoring and Evaluation (M&E) Program**

For the M&E program, the licensee would make required funds available for a monitoring and evaluation program for Lake Chelan fishery resources in accordance with SA Article 6(b). The M&E program would assess the efficacy of the NPS, FS, FWS, WDOE, and WDFW management actions, and aid in evaluating the need for potential future changes as conditions and data analyses dictate. The funding level provided by the licensee as part of the requirement of the project license would be used to implement as many measures of the M&E program as possible. The licensee states that for funding beyond their required obligation, the extent to which the M&E measures would be implemented would depend on the ability of the state and federal agencies to provide additional funds, through cost-sharing and other means.

**Tributary Barrier Removal**

The SA Article 6(c) details the licensee’s obligation to remove alluvium barriers in tributaries to Lake Chelan. Regarding a description of the methods to be employed as required by license Article 404, the licensee states that a tributary barrier identification analysis was conducted using two methods: Forest Practices Board Emergency Rule (2003) and Thompson (Oregon Method, 1972). Standard barrier removal techniques would be used to provide alluvial salmonids access for spawning. Design development of tributary mouth restoration, selection of tributaries for barrier removal, and monitoring regarding tributary barrier removal would be based on the recommendations of the LCFF,
and subject to approval of the NPS regarding tributaries on its lands, the FS for tributaries on its lands, and the WDFW for tributaries on state lands.

The licensee plans to use the same methodologies (the Forest Practices Board Emergency Rule and the Oregon Method) during the monitoring process to determine whether barriers have reformed after streams have been treated and existing barriers removed. In addition to mechanical barrier removal to provide tributary access for westslope cutthroat trout spawning, the lake level would be managed in accordance with SA Article 8. After alluvial barriers are mechanically removed, tributary mouths would be monitored to evaluate if they are accessible by spawning fish. Monitoring would involve surveying the tributary mouths on as-needed bases to identify formation of new depth, velocity, or gradient barriers. The licensee states that the goal would be to ensure channel integrity sufficient to maintain upstream and downstream fish passage between the lake and the tributary.

Lake Chelan and Tributary Fish Stocking

As required by SA Article 6(d), the licensee plans to make available to the WDFW sufficient funding to rear annually the following resident fish at the Chelan Hatchery for stocking in Lake Chelan: (1) approximately 5,000 pounds of salmonid fingerlings; and (2) approximately 33,000 pounds of catchable-sized salmonids. The licensee states that an Interagency Agreement exists between the licensee and the WDFW to provide funding for fish stocking. The licensee states that beginning in 2007, the WDFW stocked kokanee in the Wapato Basin at Mill Bay and Lakeside due to concerns regarding predation by lake trout on stocked kokanee. Additionally, beginning in 2007, the licensee states that the WDFW changed their stocking plan due to fish health issues with rearing all catchable-sized westslope cutthroat trout, to releasing 50,000 westslope cutthroat trout at Lakeside and Mill Bay in March, and 50,000 triploid rainbow trout at Lakeside in August and September.

The licensee plans to convene a meeting of the LCFF no later than April 1 each year for review and revision of the stocking plan and management objectives by the LCFF. The licensee states that an annual report would be filed with the Commission each year following the 30-day review and comment period by the LCFF. The annual report would include any recommendations for reducing or eliminating the stocking program and, in the event that stocking is reduced or eliminated, any recommended fish enhancement measures to be implemented in place of stocking.
Entrainment

The SA Article 6(e) details methods that would be used to enumerate westslope cutthroat trout in the vicinity of the project intakes, the conditions that would trigger entrainment sampling, and how the licensee would determine if and when those conditions have been met. The licensee states that the target species for entrainment studies would be salmonids native to the Lake Chelan system, i.e. bull trout and westslope cutthroat trout in their adult life stage. The objective of the entrainment sampling would be to determine the relative abundance of bull trout and westslope cutthroat trout in the vicinity of the project at the time of year when these species would most likely be present. The following study methods, or others recommended by the LCFF, would be employed for future entrainment investigations: (1) hook and line; (2) oneida trap; (3) gillnet; and (4) video. The licensee states that the same methods were used during relicensing baseline studies and future entrainment investigations would occur using the same protocols. The licensee states that annual results of any entrainment sampling would be compiled in a final report and filed with the Commission by April 30 of the subsequent year.

SCHEDULE

(1) Develop Food Web Model: 2008-2009
(2) M&E Program: Years 1-50, annually
(3) Tributary Barrier Removal:
   2008: evaluation of current barriers
   2009: two #1 priority streams
   2010 one #1 priority stream and one #2 priority stream
   2011: two #2 priority streams
   2012: two #3 priority streams
   2013: one #3 priority stream and one other stream to be determined
(4) Tributary Barrier Monitoring: Years 6-50, monitoring every 2 years
(5) Fish Stocking Plan: Years 1-50, annually
(6) Entrainment Sampling Plan: Years 7-35, 140 days total

AGENCY CONSULTATION

License Article 404 requires the licensee to prepare their plan in consultation with the LCFF, and the Yakima Nation and NMFS. The licensee states that they began consulting with the LCFF on February 21, 2007. A draft plan was provided to the consulted entities on September 28, 2007 and comments were received through October 29, 2007. The licensee’s filing included meeting minutes from the LCFF meetings,
including comments received on the licensee’s plan, which were incorporated into the licensee’s filed plan. The licensee stated that the Yakima Nation and NMFS chose to only participate in the Chelan River Fishery Forum, where measures implemented to enhance anadromous fish were addressed.

DISCUSSION AND CONCLUSIONS

Article 404(b) requires the licensee to file an Annual Fish Stocking Report with the Commission 30 days following the review by the consulted entities. The annual report is required to include any recommendations for reducing or eliminating the stocking program and any recommended fish enhancement measures to be implemented in place of stocking, and approved by the Commission prior to implementing. The licensee plans to convene a meeting of the LCFF no later than April 1 each year for review and revision of the stocking plan and management objectives by the LCFF. Since Article 404(b) allows the licensee 30 days following the review by the consulted entities to file their report with the Commission, the licensee should file their Annual Fish Stocking Report with the Commission by June 1, beginning 2008. Additionally, as required by Article 404(b), if any recommended fish enhancement measures are proposed to be implemented in place of stocking, the licensee’s report should be filed for Commission approval.

Article 404(c) requires the licensee to file their Entrainment Sampling Plan for Commission approval at least one year prior to its planned implementation. Annual results of any entrainment sampling are required to be compiled in a final report and filed with the Commission no later than March 1 of the subsequent year. Although Article 404(c) requires the reports to be filed with the Commission by March 1, the licensee proposes filing their reports by April 30, which is acceptable. However, the licensee does not state that their plan would be filed for Commission approval as required by Article 404(c). Therefore, the licensee should file for Commission approval, at least one year prior to its planned implementation, their Entrainment Sampling Plan as required by Article 404(c). Additionally, any associated Entrainment Sampling Reports should be filed with the Commission by April 30 of the subsequent year following sampling, as proposed by the licensee.

The licensee’s Lake Chelan Fishery Plan should assist in restoring and enhancing native fisheries in Lake Chelan and its tributaries. Additionally, the measures included in the licensee’s plan should support the lake’s recreational fishery.
The licensee's plan satisfies the requirements of license Article 404 of the Order Issuing New License issued November 6, 2006, for the Lake Chelan Hydroelectric Project. Therefore, the licensee's plan, as modified, should be approved.

The Director orders:

(A) The Lake Chelan Fishery Plan filed November 6, 2007, under license Article 404 of the November 6, 2006 Order Issuing New License for the Lake Chelan Hydroelectric Project, as modified by paragraphs (B) and (C), is approved.

(B) The licensee shall file with the Commission by June 1, beginning 2008, their Annual Fish Stocking Report. If any recommended fish enhancement measures are proposed to be implemented in place of stocking, the licensee’s report shall be filed for Commission approval. The licensee shall allow the Lake Chelan Fisheries Forum 30 days to provide comments and/or recommendations on their report before filing the report with the Commission. The filing shall include comments and/or recommendations from the Lake Chelan Fisheries Forum and the licensee’s response to any comments. Based on review of the report, the Commission reserves the right to require changes to the project to ensure compliance with the license.

(C) The licensee shall file for Commission approval, at least one year prior to its planned implementation, their Entrainment Sampling Plan. Any associated Entrainment Sampling Reports shall be filed with the Commission by April 30 of the subsequent year following sampling. The licensee shall allow the Lake Chelan Fisheries Forum 30 days to provide comments and/or recommendations on their plan and report before filing with the Commission. The filing shall include comments and/or recommendations from the Lake Chelan Fisheries Forum and the licensee’s response to any comments. If the licensee does not adopt a recommendation, the plan shall include the licensee’s reasons, based on project-specific information. Based on review of the plan or report, the Commission reserves the right to require changes to the project to ensure compliance with the license.

(D) The licensee shall file an original and seven copies of any filing required by this order with:

The Secretary
Federal Energy Regulatory Commission
Mail Code: DHAC, PJ-12.3
888 First Street, NE
Washington, DC 20426
(E) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR 385.713.

George H. Taylor
Chief, Biological Resources Branch
Division of Hydropower Administration and Compliance