



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1201 NE Lloyd Boulevard, Suite 1100
PORTLAND, OREGON 97232-1274

F/NWR5

VIA ELECTRONIC FILING

February 12, 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: Comments of the National Marine Fisheries Service on the Draft Application for a New License for the Enloe Hydroelectric Project, Project No. 12569

Dear Secretary Bose:

Enclosed for filing with the Federal Energy Regulatory Commission in the above captioned proceeding, please find the comments of the National Marine Fisheries Service on the Draft License Application prepared by the Public Utility District No. 1 of Okanogan County, Washington, for the proposed licensing of the Enloe Hydroelectric Project, Project No. 12569. Copies of these comments have also been served on those entities identified in the Service List for Project No. 12569.

Sincerely,

A handwritten signature in black ink that reads "Keith Kirkendall".

Keith Kirkendall, Chief
FERC & Water Diversions Branch
Hydropower Division

Enclosure

Cc: Service List



Enclosure

Cc: Steve Lewis, USFWS – Wenatchee, WA
Dennis Beich, WDFW – Ephrata, WA
Joe Peone, Collville Tribes – Nespelim, WA
Steve Parker, Yakama Tribes – Toppenish, WA
Bob Heinith, CRITRC – Portland, OR

**Comments of the National Marine Fisheries Service
on the
Draft License Application
Enloe Hydroelectric Project, FERC Project No. 12569
Public Utility No. 1 of Okanogan County, Washington**

Introduction

The National Marine Fisheries Service (NMFS) has reviewed the Draft License Application (DLA) for the proposed Enloe Hydroelectric Project (Project No. 1212569), owned by the Public Utility District No. 1 of Okanogan County (Okanogan PUD). NMFS appreciates the opportunity to participate in the pre-filing consultation process and to review the DLA. Our comments pertain to NMFS' statutory responsibility for the protection and enhancement of anadromous fishery resources.

The Enloe Hydroelectric Project (Project) is located at approximate river mile (RM) 8.8 on the Similkameen River in Okanogan County near Oroville, Washington. The Okanogan River drains into the Columbia River about 5 miles east of Brewster, Washington. Nearly 75 percent of the Okanogan River's flow volume is supplied by the Similkameen River. At present, summer steelhead and summer Chinook salmon spawn and rear in the lower Similkameen River (below the Project). The Washington Department of Fish and Wildlife maintains a summer Chinook rearing and acclimation facility on the Similkameen at about RM 1. These facilities are mitigation for the loss of summer Chinook salmon adults that would have been produced in the Okanogan River basin in the absence of Wells, Rocky Reach, and Rock Island hydroelectric projects.

The summer steelhead that occur in the Similkameen River are included in the Upper Columbia River (UCR) distinct population segment (DPS). This DPS was listed as endangered under the Endangered Species Act (ESA) on August 18, 1997; its status was upgraded to threatened on January 5, 2006, and reinstated to endangered status per U.S. District Court decision in June 2007. The lower Similkameen River is designated as critical habitat for this species.

The following remarks are organized by issues of concern as opposed to a page-by-page commentary. In places, we found the DLA to be somewhat difficult to follow. For instance, we had some trouble understanding the relationship between certain water quality readings and specific locations where the data was collected. We address this more specifically below.

Comments

Water Temperature

Appendix B of Appendix E.2.1 provides a table listing the 7-DADMax¹ water temperatures recorded in the Similkameen River above and below the Project. While the DLA, Appendix E.2.1, provides an adequate narrative of the locations where the data was collected and shows these points on a map, the table does not. In other words, the locations of where the specific readings were taken are given in the table as *river 1*, *river 2*, *river 4*, and *river 6* but these "river

¹ 7-Day average of the daily maximum temperature.

reaches” are not identified or associated with the locations described in the text in Appendix E.2.1. We assumed that “river 1” was the furthest upstream reach and “river 6” was the most downstream reach. Nevertheless, this should be clarified.

The DLA explains (at E.2-8) that the Project does not violate the Washington State water quality standard for temperature because it does not cause a rise in temperature of more than 0.3° Celsius (C) above background levels. However, we were confused by this statement because the list of 7-DADMax temperatures provided in Appendix B of Appendix E.2.1 show numerous exceedences of the 0.3°C standard as you move downstream (we assume) from *river 1* to *river 6*. We may be misinterpreting the table. A short description of where the river reaches are located should be provided to help the reader correctly interpret the table.

Finally, the DLA states that there are a couple of deep pools in the reservoir and that these pools do not stratify during the summer months, i.e., there is adequate mixing in the reservoir. The DLA did not explain if this condition would change or not with installation of crest gates which are intended to raise the reservoir 4 to 5 feet. The unintended development of an epilimnion during the summer months, combined with a shallow powerhouse intake, would supply extremely warm water to the lower Similkameen River. This should be addressed in the Final License Application.

Dissolved Oxygen

The same comment given in the first paragraph above under the *Water Temperature* discussion applies here as well. The table in Appendix A of Appendix E.2.1 lists the dissolved oxygen (DO) readings and gives the associated locations as *DO#1*, *DO#2*, *DO#3* and *DO#4* at the top of the table. Again, we assumed that this went from upstream to downstream but could not be sure. In addition, DO readings should have been recorded during the period of highest temperature recordings as well as the period of lowest flow.

We agree that during periods of high water temperatures (July and August), the reduction or elimination of spill over the dam could reduce DO in the lower river. Monitoring plans for measuring changes in DO from above and below the Project should be included in the Final License Application. The Final License Application should also include a contingency to minimize reductions in DO should it be found to occur due to the new configuration of the Project (i.e., no spill).

Total Dissolved Gas

We agree with statements in the DLA that operation of the Project under its new configuration may reduce total dissolved gas (TDG) in the lower Similkameen River. This is because most of the flow would be diverted through the powerhouse and not spilled over the dam, eliminating a significant amount of aeration. We also agree that TDG should be monitored. However, the Final License Application should contain plans for monitoring for the life of the license and not just 1 year. Monitoring does not have to be done every day year round, but the capability should be provided so that it can be measured during periods of spill or other times as necessary.

Instream Flows and Emergency Powerhouse Shutdown

We agree that the capability to automatically lower the crest gates to bypass flow during an emergency shutdown of the powerhouse should be installed. It was unclear in the DLA how such a system would work. The Final License Application should provide an account of how flows in the lower river will be maintained during an emergency powerhouse shutdown.

Tailrace Barrier

Tailrace barriers are installed at various hydropower projects where hydraulic conditions are such that returning adult salmon and steelhead swim into draft tubes and run into the turbine blades. This can result in serious injury or mortality. NMFS appreciates that the DLA recognizes that this condition will likely exist at the Project. Tailrace barrier designs have been discussed during pre-consultation meetings between NMFS and Okanogan PUD. NMFS is cognizant that installing a traditional barrier could be very costly at this Project. The DLA proposes that the Project be designed such that the water velocity exiting the turbines will prevent adult salmon and steelhead from entering the draft tubes. At this time NMFS is very cautious about such a design and strongly recommends that Okanogan PUD continue to consult with NMFS fish passage engineers. In NMFS' view, it is likely that upon start-up and ramp-down of turbine units, velocities will exist that allow adult salmon and steelhead to ascend the draft tubes and potentially be struck by the turbine runners, especially when fish are staging below the powerhouse. The tailrace barrier design should be developed in consultation with NMFS before a final license application is filed.

Anadromous Fish Passage

Regional disagreement regarding the historic presence of anadromy above Similkameen Falls, located about 370 feet downstream of the dam, and whether fish should be passed regardless of historic presence or not, has resulted in the Federal Energy Regulatory Commission rejecting a license in two previous attempts to permit the Project. NMFS has supported fish passage in those previous proceedings. In the absence of a recovery plan for listed UCR steelhead, and not knowing what measures a final recovery plan might advocate to recover this species, NMFS felt it prudent to require passage during the last proceeding in order to not foreclose any opportunity or measures to promote recovery.

In August 2007, NMFS issued a final recovery plan for UCR spring-run Chinook salmon and UCR steelhead. This plan does not cite passage at Enloe Dam as a recovery measure. Therefore, given the lack of consensus regarding historical presence above Similkameen Falls, the opposition to passage by Canadian Tribes, and the general non-consensus among region fish managers in the U.S. and Canada, NMFS believes that it is prudent to reserve its authority for upstream and downstream fish passage in this proceeding. NMFS may prescribe a tailrace barrier to protect adults staging below the Project. Should NMFS determine at a later date that passage is necessary to recover anadromous fish species, it will engage regional managers, including Canadian Federal and Provincial governments and affected Canadian and US Tribes, to determine how best to use its reserved fish passage authority.

Conclusion

NMFS appreciates the opportunity to comment on the DLA for the Enloe Hydroelectric Project. We look forward to working with Okanogan PUD and other stakeholders as this licensing process progresses. If you have any questions or concerns with these comments, please contact Scott Carlon of my staff at 503.231.2379 (email: Scott.Carlon@noaa.gov).

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

Okanogan PUD


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**Enloe
Hydroelectric Project
FERC No. 12569**

CERTIFICATE OF SERVICE

I hereby certify that I have this day served, by electronic mail, a letter to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, from the National Marine Fisheries Service regarding Comments of the National Marine Fisheries Service on the Draft Application for a New License for the Enloe Hydroelectric Document, Project No. 12569 and the foregoing document and this Certificate of Service has been served to each person designated on the official service list compiled by the Commission in the above captioned proceeding.

February 12, 2008


Bethany Downs, Secretary
FERC & Water Diversions Branch
Hydropower Division