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Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C., 20426

December 1, 2006

Re: FERC Draft Environmental Impact Statement for the Relicensing of the Klamath Hydroelectric Project, No. 2082-027

Dear Mr. Salas,

I have reviewed the Federal Energy Regulatory Commission's *Draft Environmental Impact Statement (DEIS) for Hydropower License, for the relicensing of the Klamath Hydroelectric Project (KHP)* and I find it deficient with regard to requirements of the National Environmental Policy Act (NEPA) (Pub. L. 97-258, § 4(b)) and the requirements of the Hydroelectric License Regulations under the Federal Power Act (Federal Register, Volume 67, Number 181). I will cite sections in bold then follow with a discussion of why the DEIS is inadequate.

My qualifications include having written chapters for the *Long Range Plan for the Klamath River Basin Fisheries Restoration Program* (Kier Assoc., 1991) and the *Mid-term Evaluation of the Klamath River Basin Fisheries Restoration Program* (Kier Assoc., 1999). For more than two years I have been working as a consultant to five Lower Klamath Basin Indian Tribes to improve government compliance with the Clean Water Act and in meeting Tribal Trust responsibilities. Duties have included review and commenting on TMDL documents and those related to the relicensing of the Klamath Hydroelectric Project (KHP). My comments below are filed as an individual.

National Environmental Policy Act Deficiencies

Under NEPA all federal agencies must meet certain requirements. The bullets listed in bold below are taken from the NEPA statutes.

- **Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.**

The DEIS fails to protect coho and spring chinook salmon from extinction, which means that all future generations will be deprived of this phenomenal gift of nature. This loss in perpetuity is in conflict with the NEPA prohibition of causing "irreversible and irretrievable" impacts. The KHP reservoirs are causing a crisis in the health of Klamath

River salmon. Your DEIS acknowledges the role of the reservoirs in severe water quality problems, fish disease epidemics and the proliferation of toxic algae, but the staff Preferred Alternative calls for maintaining KHP dams. The DEIS needed to consider an option of removing J.C. Boyle and Copco II as well Copco I and Iron Gate dams. All evidence suggests that the Klamath River can only be restored to good health, if free flowing river reaches are allowed to cleanse the river of excess nutrients. Your staff should be required to redo the DEIS to consider the four dam removal option.

The DEIS does not properly characterize the extinction risks of Pacific salmon stocks in the Klamath River Basin. Rieman et al. (1993) in their paper *Consideration of Extinction Risks for Salmonids* characterize salmonid populations at extreme risk of extinction when: “Cumulative disruption of habitat has resulted in a clear declining trend in population size. Under current management habitat conditions will not improve within two generations (5 to 10 years).” Klamath spring and fall chinook stocks have shown recent alarming down trends and coho salmon have several weak year classes, which is another sign of high extinction risk.

If KHP dams are not removed by 2015-2025, when ocean conditions and climatic conditions become less favorable for salmon survival because of shifts in the Pacific Decadal Oscillation cycle (Collison et al., 2003; Hare et al., 1999), it is likely that several salmon Klamath River salmon stocks will go extinct. Conversely, if Klamath River dams are removed, extinction risk will be greatly lessened by substantial improvements in freshwater habitat.

- **Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings**

The DEIS Preferred Alternative does not meet this requirement of NEPA. KHP reservoirs are foul, polluted water bodies that are a hazard to the health of people, pets and livestock. Samples taken by Karuk Tribe Department of Natural Resources staff from Iron Gate and Copco reservoirs show the toxic blue-green algae species *Microcystis aureginosa* is proliferating and is emitting toxins far in excess of those recommended by the World Health Organization. The finding recently by the Yurok Tribe of Microcystin toxins all the way to the Klamath River estuary shows that KHP causes health risks that extend far below the project. In short, the condition of the river caused by the project is the antithesis of a “safe, healthful and productive” for Indian people. In fact recent scientific studies found that lack of salmon was causing a decline in Indian health (Norgaard, 2004).

Reaches of the Klamath River that are revived when KHP dams are removed will be rejuvenated tremendously with great benefit to aesthetics and likely also to property values on lands adjacent. The FERC DEIS acknowledges that the “zone of recovery,” or where the river begins to clean itself, would be moved from below Iron Gate Dam upstream to below Keno Dam with tremendous benefit to water quality in all downstream reaches. To meet this requirement of NEPA, FERC should call for removal of four KHP dams in a revised DEIS.

- **Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences**

The cascading downward spiral of Klamath River health represented by fish disease epidemics and the emergence of the toxic algae crisis are “undesirable and unintended consequences” of KHP operation. Calling for the removal of dams and production of power through other newly constructed facilities would be the way to maximize beneficial uses and for FERC to comply with NEPA.

- **Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice**

The Karuk, Hoopa and Yurok Tribes of the Lower Klamath River Basin are living cultural resources that meet the description above, yet the FERC DEIS Preferred Alternative does not support maintaining this diversity or allowing Tribal members their individual choice to continue in their traditional ways of living. FERC should recommend removal the four lowest KHP dams in a revised DEIS to allow salmon to thrive and to promote a healthy Klamath River that allows for traditional fish harvest and contact with the river during all seasons of the year.

- **Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities**

Residents of California’s north coast and those of southern Oregon consider access to harvest of salmon in the ocean in recreational and sport fisheries to be an important index of our standard of living. The extreme scarcity of Klamath River salmon in the ocean caused fishing closures from the mouth of the Columbia River to Monterrey, California. There was an estimated loss of over \$100 million this year alone to the coastal economy of this region. Certainly the standard of living of coastal fishermen, business owners and other coastal residents suffered. Tribal fishermen are deprived both monetarily and spiritually because of the shortage of fish and the ill health of the river.

The FERC DEIS acknowledges the role of pollution from KHP dams in increasing fish disease rates. FERC needs to re-draft its DEIS to include a four dam removal recommendation in order to improve water quality, fish health and the economic health of the communities of the coast and the river corridor and to meet NEPA requirements.

- **Balance the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity**

The short term benefit of power generation to PacifiCorp is far outweighed by the long-term need to maintain the productivity of salmon runs. According to the FERC DEIS,

PacifiCorp will lose \$28 million a year after covering costs for fish ladders mandated by the National Marine Fisheries Service. Fish ladders will be a huge burden on PacifiCorp rate payers and will likely not achieve objectives for restoring salmon. Logic and this section of NEPA would suggest that decommissioning of at least four KHP dams would derive short-term economic benefits and greatly improve long-term prospects for salmon survival and that is what FERC should be recommending.

- **Recognize the worldwide and long-range character of environmental problems and prevent a decline in the quality of mankind's world environment.**

The National Academy of Sciences (2003) noted that there would likely be a greater challenge maintaining and restoring Klamath River salmon in the face of global warming and called for exploration of removing at least Iron Gate Dam. FERC failed to recognize global warming impacts in its DEIS, as well as the now well recognized PDO cycles (Hare et al, 1999). FERC needs to redo its DEIS and include a four dam decommissioning option as its Preferred Alternative to prevent the collapse of one of the most important ecosystems in the Western United States.

Hydroelectric License Regulations under the Federal Power Act

The FERC DEIS fails to meet requirements of Department of Energy guidelines for dam relicensing (Federal Register, Volume 67, Number 181).

- **Section 10(a) (1)\3\ provides that hydropower licenses issued must be best adapted to a comprehensive plan for the affected waterways for all beneficial public uses, and must include provisions for the protection of fish and wildlife and other beneficial public uses, and that the Commission must give fish and wildlife, recreation, and environmental concerns equal consideration with power development.**

The FERC DEIS is so biased towards power production that it does not use a weight of evidence approach in considering all the information it processed and presented. As noted above, the DEIS concedes that KHP reservoirs are playing a role in water pollution and fish disease epidemics and yet no remediation is offered. Cold water fish are recognized “beneficial uses” under the Clean Water Act and yet FERC does not provide for their protection as required by DOE guidelines.

FERC is also required to conform to statutory requirements of the Endangered Species Act, yet the DEIS flatly rejects NMFS (2006) recommendations for removal of the four lowest dams to allow recovery of ESA listed salmon species. FERC not only failed to even consider the option requested by NMFS, the DEIS recommends trap and haul of fish above dams. Clearly the recent court decision upholding NMFS authority under Section 18 of the Federal Power Act to mandate installation of fish ladders needs to be considered in a revised DEIS.

Conclusion

In closing, the many deficiencies noted above with compliance with NEPA and DOE guidelines requires that FERC redo its DEIS to include a four dam removal option. When you come to Eureka to take comments on the revised final DEIS, please book a larger hall for public comment to allow participation. Feel free to call me, if you would like help with arrangements.

Sincerely,

Patrick Higgins

References

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