Pacific Fishery Management Council

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Marc Gorelnik, Chair | Merrick J. Burden, Executive Director

April 18, 2022

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

RE: FERC Docket numbers P-2082-063 and P-14803-001

Dear Ms. Bose,

The Pacific Fishery Management Council (Council) appreciates the opportunity to provide comments on the Federal Energy Regulatory Commission's (FERC) February 26, 2022, *Draft Environmental Impact Statement for Hydropower License Surrender and Decommissioning for the Lower Klamath Project and Klamath Hydroelectric Project* (DEIS). The Klamath River Renewal Corporation (KRRC) proposes to decommission and remove most project facilities. KRRC also proposes to implement 16 management plans that specify the sequence of procedures that would be used to draw down the four reservoirs; remove the dams and associated facilities; restore lands currently occupied by the dams, reservoirs, and other facilities; improve access for salmon to historical and existing habitat; and minimize adverse effects on environmental resources. KRRC filed 14 revised management plans on December 14, 2021, reflecting the results of ongoing consultation with various agencies. The FERC staff's DEIS recommendation is for approval of the license surrender as proposed, with additional staff recommendations.

After decades of engagement on this issue over declining Klamath salmon stocks and near-collapse of Klamath fisheries, the Council is extremely encouraged and expresses strong support for decommissioning and removal of the four lower Klamath dams. The Council agrees with the FERC staff preferred alternative which incorporates recommendations by KRRC with additional mitigation measures proposed by FERC staff. In addition, the preferred alternative includes mandatory measures from the Water Quality Conditions issued by the California Water Board and Oregon Department of Environmental Quality (Oregon DEQ) and the Biological Opinions issued by National Marine Fisheries Service (NMFS) and United States Fish and Wildlife Service (USFWS) with several additional recommendations.

The Council is one of eight regional Federal fishery management councils established by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA) and develops management actions for Federal fisheries of Washington, Oregon, California, and Idaho. The MSA requires fishery management councils to describe, identify, conserve, and enhance essential fish

habitat (EFH) for managed species that are under a fishery management plan (FMP). The Council's Pacific Coast Salmon FMP (PFMC, 2014) identifies and describes EFH for Chinook salmon, coho salmon, and Puget Sound pink salmon. The MSA further requires the Council to comment on any Federal action that may affect the habitat of its managed salmon and is the basis for our comments on this Federal action.

Since at least 2006 when the current 50-year FERC license for these hydropower dams expired, the Council has encouraged FERC to decommission these aging facilities towards restoring a natural flow regime to the Klamath River and providing access to crucial upper Klamath basin salmon spawning and rearing habitat now blocked by dams. Klamath dam removal was agreed to in the original Klamath Hydropower Settlement Agreement (KHSA) made by the company that owns and operates the dams (PacifiCorp), the states of California and Oregon, multiple state and federal agencies, Tribes, and nongovernmental organizations (including commercial fishing organizations) in 2010.

Restoring the anadromous salmon runs of the Klamath is of vital importance to West Coast ocean commercial as well as recreational salmon fisheries which the Council manages. The Klamath River once produced the third-most prolific salmon runs of all river systems in the lower 48 states. Klamath fish not only have inestimable value to the Klamath Basin Tribes, but these fish were also a major economic engine for northern California and much of the Oregon coast ocean salmon fisheries, prior to their severe declines over the past several decades.

Today, Klamath River salmon runs are at only a small fraction of their historical average abundance, and with the dams still in place they continue to decline. Two of these runs are listed under either the Federal or California Endangered Species Acts, or both. Even for the more abundant fall-run Chinook salmon, poor flows and degraded in-river water quality have led to a failure to meet minimum salmon population abundance targets in multiple years, triggering widespread "weak stock management" constraints to ocean salmon fisheries in several recent years, contributing to several recent declared Federal fishery disasters.

The upcoming 2022 ocean salmon season will again be highly constrained by very weak Klamath-origin fall-run Chinook natural spawner returns, with ocean Chinook salmon harvests once again closed or severely restricted within the Klamath Management Zone (KMZ) areas of both northern California and southern Oregon, to the great economic detriment of many coastal, salmon-dependent communities.

The primary reason for these declines is the destructive presence of the four aging lower Klamath dams. These dams were built starting in 1918 without salmon fish passage – something that would be illegal under current law, but which was grandfathered into past FERC licenses. The dams create poor water quality and starve the lower river of spawning and rearing gravel beds. Additionally, they create warm-water reservoirs that nourish massive toxic algae blooms and encourage the spread of *myxosporean* parasite epizootics, which now infect a majority of juvenile

salmon in the river in many years[1]. The dams also block at least 420 stream-miles of once fully occupied salmon spawning and rearing stream habitat.

The FERC DEIS finds that removal of the Lower Klamath Project dams would increase salmon habitat availability, restore a more natural flow regime, restore more natural seasonal water temperature variation, better protect water quality, and reduce the likelihood of fish disease, all of which would have significant long-term benefits for fall-run Chinook salmon, spring-run Chinook salmon, and Endangered Species Act (ESA)-listed Southern Oregon/Northern California Coast Coho Salmon (SONCC) coho salmon.

This benefit would also include adding at least an additional 76 stream-miles of SONCC coho habitat for this California State and Federal ESA-listed fish. Most non-Tribal SONCC coho fisheries have been closed and their retention illegal in California since the mid-1990's (years before they were ESA-listed in 1997), but even the possibility of accidental catch of these sometime intermingling ESA-listed coho in fall-Chinook fisheries operates as a stringent limiting factor on Chinook harvests. The more these coho decline, the more these kinds of bycatch restrictions will limit other fisheries.

Since Klamath-origin salmon in the ocean are migratory, we believe that the benefits of Klamath dam removal and the restoration of Klamath-origin salmon will extend to all economic and cultural users of these fish and fisheries, including Tribes, recreational anglers, and members of fishing communities along the entire West Coast.

Klamath River salmon population declines can be remediated to a large degree if FERC approves the KRRC's Lower Klamath Project hydropower decommissioning and surrender application currently before it. The KHSA and subsequent applications to FERC for Klamath dam license transfer and decommissioning have all had the support of a broad set of stakeholders *and* the dam owner, and warrants support from FERC. The Council appreciates the opportunity to provide comments on the DEIS and asks that FERC take swift action to approve the KRRC plan for Hydropower License Surrender and Decommissioning for the Lower Klamath Project and Klamath Hydroelectric Project.

The Council acknowledges and commends the impressive partnership, coordination, and determination of the many entities representing state, Federal, tribal, conservation, and stakeholder interests that have worked tirelessly for decades toward the common goal of restoring the Klamath River to a healthy and productive state.

Attached to this letter please find additional specific comments on the DEIS, along with copies of previous Council letters to FERC and BOR supporting Klamath dam removal, for your reference and for the Administrative Record. Thank you for the opportunity to comment.

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[1] See: Voss, A., True, K., & Foott, J. (2018). Myxosporean Parasite (*Ceratonova shasta* and *Parvicapsula minibicornis*) Prevalence of Infection in Klamath River Basin Juvenile Chinook Salmon, March - August 2018. U.S. Fish & Wildlife Service California – Nevada Fish Health Center, Anderson, CA. http://www.fws.gov/canvfhc/reports.html

Sincerely,

Marc Gorelnik
Chairman

GHS:ael

Enclosures:
Attachment A: Additional Specific Council Comments on the DEIS
PFMC letter to FERC re: Klamath Dam Removal (June 21, 2017)
PFMC letter to BOR re: Klamath Dam Removal (December 13, 2011)
PFMC letter to FERC re: Klamath Dam Removal (December 8, 2006)
PFMC letter to FERC re: Klamath Dam Removal (April 24, 2006)

Cc: Council Members
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Attachment A

The Council provides the following specific comments on the Klamath Dam Removal Project's Draft Environmental Impact Statement (DEIS) issued February 25, 2022.

Collecting Pre-drawdown Baseline Data

In the KRRC's Water Quality Management Plans as outlined in the DEIS, the Council notes the importance of monitoring pre-removal conditions as baseline data from which to guide as well as determine the effectiveness of later salmon reintroduction efforts. Several water quality monitoring programs included in the Plan are intended to begin at least one year before the actual reservoir drawdown, which at this time is projected to begin in January 2024. [DEIS 2-12 and 2-13 (Table 2.1-3)].

Minimizing Sediment Impacts Through Drawdown Timing and Management

The Council notes the habitat protections and benefits of KRRC's reservoir drawdown and diversion plan, which is also intended to minimize the duration of salmon exposure to excessive suspended sediment concentrations ("SSCs") downstream by truncating the timing of the peak SSCs plume to the rainy season "window" of January 1 to March 15th (i.e., the period of highest river flows but also of least harm to migratory salmon). The reservoir drawdown process would be carefully managed over approximately 6 months at a target rate of two to five feet of elevation per day, as inflows allow, as an important measure to control and minimize erosion of sediments downstream. [DEIS 3-8; 3-37].

The Council supports the controlled drawdown measures that would minimize the duration of SSCs exposures and minimize impacts across multiple life-stages. While there are some predicted losses of salmon eggs in the mainstem from excess siltation (estimated at about 8 percent of all anticipated fall-run Chinook redds that season), many fall-run Chinook (which typically only come in to spawn in August through October), and nearly all SONCC Coho and spring-run Chinook, spawn in the tributaries where they will not be exposed to SSCs from drawdown except very briefly when in migration corridors. [DEIS 3-208]

Juvenile Salmonid Rescue and Relocation

The Council supports the proposed programs for juvenile salmonid relocation (especially SONCC Coho) into areas where they would be at lower risk, in accordance with advice of the Aquatic Technical Work Group, as necessary to mitigate the impacts of high SSCs. [DEIS 2-18; 3-205]

Side-Channel (Particularly Coho) Habitat Reconstruction

The Council supports the project's emphasis on restoring high quality fish habitat through restoration of tributary stream complexity by the placement of large woody debris in emergent side channels (which will help encourage the re-establishment of beaver populations to further improve fish habitat), along with stream stabilization mitigation construction "consistent with the *SONCC Coho Recovery Plan*." [DEIS 2-23 to 2-24]. The KRRC has also developed a *Tributary-*

Mainstem Connectivity Plan, which includes monitoring fish access to newly unblocked tributary habitat in eight different major tributary streams now above Iron Gate Dam, and KRRC would remove any blockages in consultation with the source agencies.

Bank Stabilization and Revegetation

The Council also supports the revegetation plan described in the KRRC's Reservoir Area Management Plan to stabilize the riverbanks and prevent future erosion of emergent reservoir lands [DEIS 2-25 to 2-31]. Stabilizing newly emerged riverbanks is an important pre-requisite to successful salmonid reintroduction.

Assuaging Sediment Load Fish Impact Concerns

The DEIS accurately explains that the normal bedload sediment carrying capacity for the Klamath River is very large, and that any additional sediment loads from dam removal would not cause sediment loads to exceed the normal range of river carrying capacity. This is an important consideration in planning for dam removal because the release of sediments stored behind the dams has always presented potential threats to incoming spawning salmon.

The DEIS also accurately explains that even with additional in-river sediment loads resulting from dam removal, the total sediment load would still remain *well within the normal range of variability* to which Klamath salmon are adapted. [DEIS 3-17; Figure 3.1-3 (3-28)]. The DEIS notes also that: "*Additional erosion and mobilization of fine sediments could occur while the riverbed in the reservoir stabilizes in the following year [after drawdown] but would likely be indistinguishable from the background sediment regime*." [DEIS 3-13]

The DEIS further acknowledges that the Klamath River from Iron Gate Dam downstream has been sediment-starved in the shadow of the dams since their construction, thus impoverishing the existing spawning and rearing gravel base for as much as 50 miles downriver [DEIS 3-15]. Restoring the natural geomorphology that recruits spawning gravel will thus be greatly beneficial to salmon spawning and rearing success after dam removal.

Improved Water Temperature Regimes for Fish

The DEIS provides extensive review on the effects of project dam removal on water temperatures for fish, and identifies many benefits that far outweigh any minor and temporary negative effects of dam removal on salmon [DEIS 3-88 to 3-93]. The Council strongly agrees with and fully supports the conclusions of the DEIS on the benefits to salmon and salmon habitat, specifically the following:

"[*T]he effects of the proposed action would be permanent, significant, and beneficial by shifting to a more natural temperature regime with earlier warming in the spring and cooling in the late summer and early fall in the hydroelectric reach and the Lower Klamath River down to the Trinity River confluence*." [DEIS 3-93]

"*Under the proposed action, dam removal would restore a more normative water temperature regime in the Lower Klamath River, as the large mass of the project's reservoirs would no longer delay water temperature warming in the spring and cooling in the fall*." [DEIS 3-199]

"*Overall, implementation of the proposed action would allow anadromous salmonids access to cool-water habitats available upstream of the Iron Gate Dam site, including groundwater-fed areas that are resistant to water temperature increases caused by climate change*." [DEIS 3-200]

"*Overall, when compared to existing conditions, the proposed action would improve the water temperature regime for anadromous fish spawning, rearing, and migrating in the mainstem Klamath River and provide access to additional cool-water refugia, providing a permanent, significant benefit to anadromous fish*." [DEIS 3-201]

The Council supports the recovery of the once numerous cold-water and spring-fed thermal refugia that previously existed in the Klamath River (many of them now engulfed by warm-water reservoirs) and believes this is important to assure future salmon survival in the Klamath River. This is especially relevant in the face of accelerating climate change-driven water temperature increases, all of which have been exacerbated by the warm-water, heat-sink reservoirs that currently exist.

Improved Nutrients, Dissolved Oxygen (DO) Levels and pH

The DEIS notes that there would likely be short-term disruptions in nutrient levels and chemical parameters during the year of drawdown, but that the long-term effects of dam removal would normalize these parameters and would eliminate seasonal toxic algae blooms and large fluctuations of DO and pH. [DEIS 3-98; 3-99 to 3-110]]

Reduction of Severe Juvenile Salmonid Losses Due to Ceratanova shasta Infections

One of the most urgent problems facing salmon in the Klamath is the increasing frequency and severity of fish disease outbreaks caused by the juvenile salmonid disease, *Ceratanova shasta (C. shasta)*. The Council believes that mitigating the recurring *C. shasta* infections and losses of out-migrating juvenile salmon is a major benefit of dam removal. The *C. shasta* intermediate host polychaete worm mats are largely destroyed in a natural river system where natural sediment dynamics disrupts their habitat and growth. [See discussion at DEIS 3-195 to 3-196; 3-202 to 3-204]

Impacts of Klamath Dam Removal on Essential Fish Habitat (EFH)

The DEIS discusses the impacts of the proposed action [dam removals] on Essential Fish Habitat (EFH) [DEIS 3-230 to 3-231] and concludes that the proposed action would have only a minor, temporary adverse effect on Pacific Coast groundfish EFH and coastal pelagic EFH from elevated SSCs, an effect which is likely to become diluted and dissipate rapidly once it reaches the ocean. Elevated SSCs and changes in other water quality parameters as noted above may also have some temporary adverse effect on in-stream salmon EFH. The NMFS EFH consultation for the project's Biological Opinion found, however, that despite short-term, adverse effects, the proposed action

would enhance the quality of EFH over the long term, and that the proposed action already contains adequate measures to avoid or minimize short-term, adverse effects. The Council supports these conclusions.

Pacific Fishery Management Council

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Herbert A. Pollard II, Chair | Charles A. Tracy, Executive Director

June 21, 2017

The Honorable Kimberly D. Bose
Secretary, Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Dear Madam Secretary:

The Pacific Fishery Management Council (Council) is submitting this letter in support of the September 2016 application filed by the Klamath River Renewal Corporation (KRRC) and PacifiCorp to transfer PacifiCorp's license to operate the four Klamath Hydroelectric Facilities dams in Oregon and California to the KRRC, and more importantly, in support of an additional application filed by the KRRC requesting the Federal Energy Regulatory Commission (FERC) to approve dam decommissioning and removal of the facilities from the Klamath River. Removal of the Klamath River dams would be a major step toward restoring essential fish habitat (EFH) for Klamath River fall Chinook salmon, the stock whose depleted status has resulted in the closing of substantial ocean and Klamath River fisheries during 2017.

The Council recommends management actions for Federal fisheries off of Washington, Oregon, and California. It is one of eight Regional Fishery Management Councils established by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which includes provisions to identify, conserve, and enhance EFH for fisheries managed under a Council's fishery management plan. Each Council is authorized under the MSA to comment on any Federal or state activity that may affect the habitat, including EFH, of a fishery resource under its authority. The MSA defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

The projection for Klamath River fall Chinook potential natural spawner abundance in 2017 is lower than all postseason values estimated from 1985-2016. The age-three ocean abundance forecast is the second lowest on record, while the age-four forecast is the lowest on record—less than half the previous lowest forecast. Due to the extremely low projection for Klamath fall Chinook in 2017, fisheries off the coast of California and Oregon have large closed areas, and those remaining open are at *de minimis* levels. Inriver sport fisheries for fall Chinook salmon in the Klamath River are closed during 2017, and tribal fisheries will be nearly non-existent, resulting in allocations that are far from meeting subsistence needs and providing for no economic opportunity. These closures will have severe economic and social consequences along the coasts of Oregon, California, and in the Klamath Basin. It is noteworthy that there have been several previous years when concerns regarding the status of Klamath fall Chinook salmon have resulted

in severe curtailment of fisheries and disaster declarations along the coast of Oregon, California, and within the Klamath River Basin.

Multiple factors contributed to the decline of Klamath fall Chinook in 2017, such as high juvenile disease levels and poor ocean productivity. However, the Klamath dams are thought to be a primary contributing factor to the high juvenile disease levels in the Klamath. The dams create habitat conditions conducive to the proliferation of the parasitic disease *Ceratanova shasta*; a disease that was at extreme infection levels for the juveniles of the age-three and age-four broods that are driving the low projection for 2017.

The Council has followed with keen interest the Klamath Hydroelectric Project relicensing process, as well as the negotiations and eventual agreements that were reached to remove the lower four dams on the Klamath River, given the negative effect these dams have upon EFH and the associated abundance of salmon stocks in the Klamath River. The Council is on record from previously submitted comments to FERC (enclosed) regarding the effects the Klamath dams have upon EFH, the salmon fisheries we manage, and our desire to see the four dams removed to help address habitat and water quality problems of the Klamath River and restore access to several hundred miles of historic anadromous fish habitat.

We are encouraged to see that the Amended Klamath Hydroelectric Settlement Agreement is the impetus that puts us on a trajectory for dam removal in 2020. The agreement appears to have broad support, given that: 1) it is a business decision by PacifiCorp, the owner of the dams, 2) is in the rate-payers' interest, 3) it contributes to the restoration of salmon of the Klamath River, thereby benefiting salmon fisheries along the West Coast, and 4) has sufficient non-Federal funding for implementation. Therefore, we strongly recommend that FERC approve the application to transfer ownership of the Klamath Hydroelectric Project to the KRRC, as well as the application from the KRRC to decommission and remove the dams from the Klamath River.

Sincerely,

Charles A. Tracy
Executive Director

JDG:ael

Enclosure

Cc: Council Members
Habitat Committee
Mr. Barry Thom
Mr. Thomas O'Rourke
Mr. Ryan Jackson
Mr. Judson Feder
Ms. Jennifer Gilden
Mr. Mike Burner

Pacific Fishery Management Council

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Dan Wolford, Chairman
Donald O. McIsaac, Executive Director

December 13, 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Subject: Klamath Facilities Removal Public Draft Environmental Impact Statement/ Environmental Impact Report

Dear Ms. Vasquez:

This letter presents the comments of the Pacific Fishery Management Council (Council) regarding the Klamath Facilities Removal Public Draft Environmental Impact Statement/ Environmental Impact Report (EIS/EIR).

The Council would like to commend the Department of Interior and the State of California for completing this comprehensive National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) document over a relatively short period of time. The proposed action includes the removal of four dams owned by PacifiCorp from the mainstem of the Klamath River, in addition to implementing the landscape-scale restoration efforts outlined in the Klamath Basin Restoration Agreement (KBRA). These are major steps toward addressing habitat-related problems that have plagued Klamath Basin fishery resources for decades; the Council recognizes the significant controversy surrounding this action.

The Council has previously expressed its concern, in various forums, regarding the extensive impacts of the Klamath Hydroelectric Project to the West Coast salmon fishery and dependent communities. The Council is gratified to see that an agreement to remove the dams (Klamath Hydroelectric Settlement Agreement) and to address other habitat problems facing the Basin's fishery (KBRA) has been reached, and that environmental studies are progressing in a timely manner.

The Council was created by the Magnuson Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976 with the role of developing, monitoring, and revising management plans for fisheries conducted in Federal waters off Washington, Oregon and California. Subsequent congressional amendments in 1986, 1990, and 1996 added emphasis to the Council's role in fishery habitat protection. Amendments in 1996 directed the National Marine Fisheries Service, as well as the regional fishery management councils, to make recommendations regarding Federal or

state agency activities that may affect the "essential fish habitat" (EFH) of fisheries under their authority. The proposed action to remove the hydro-electric facilities from the Klamath River is a Federal action that has an effect on EFH and will require formal EFH consultation.

The current Facilities Removal EIS/EIR and the previous Federal Energy Regulatory Commission EIS regarding the relicensing of the Hydroelectric Project show that the Project has dramatically diminished the range, quantity, and quality of habitat for Klamath Basin anadromous fish stocks, and has had other profound negative impacts on the anadromous fish of the Klamath Basin. Anadromous fish have been extirpated from several hundred miles of historic habitat above Iron Gate Dam, and habitat in the mainstem Klamath River below Link River Dam has been degraded, as a result of the Project. Our review of the EIS/EIR and its large body of supporting documentation and studies confirm these observations.

The decline of Klamath River Basin fisheries resources is a serious concern to the Council. Ocean fisheries along the Pacific Coast from Cape Falcon to Monterey Bay are often constrained by the need to reduce harvest impacts to Klamath River fall Chinook because of the depleted status of this stock. The Klamath Hydroelectric Project has had a significant effect on Klamath Basin fisheries and on the economies of tribal and nontribal fishing communities within the Klamath Basin and along the Pacific Coast from Monterey Bay, California to Cape Falcon, Oregon. We are gratified to see that these effects, long ignored in other analyses, are treated with rigor and quantitative discipline in the current EIS/EIR.

The fish production modeling efforts that were developed for the socioeconomic analysis of the NEPA/CEQA document support the need to implement the proposed action, as they indicate a substantial increase in both spring and fall Chinook salmon production as a result of the hydroelectric facilities' removal and KBRA implementation. The estimated 42 percent increase in ocean troll and sport fishery income over the next 50 years is indeed encouraging. However, we note that the independent expert panels whose purpose is to inform the Secretary of Interior about the effects of dam removal on fish populations have cautioned that significant improvements in water quality and fisheries habitat must accompany dam removal to see the true benefits of the proposed action. We urge the Secretaries of Interior and Commerce to do everything in their power to prioritize resources and expertise to accomplish these tasks.

In light of substantial benefits to the fishery resource and dependent fishing communities along the Pacific Coast and Klamath River, the Council is supportive of proposed action, Alternative 2: complete removal of the facilities. We could also support the partial removal alternative (Alternative 3), which includes removal of enough of each dam to allow free-flowing river conditions and volitional fish passage for all anadromous species at all times, especially if cost considerations would preclude full removal. The document notes that benefits to the fishery are expected to be similar under Alternatives 2 and 3.

In summary, we appreciate the monumental effort that has gone into development of this environmental analysis over a relatively short time period. We believe that it forms a

solid foundation for a positive determination by the Secretary of Interior to remove the hydroelectric facilities and implement the KBRA.

Sincerely,

D. O. McIsaac, Ph.D.
Executive Director

JDG:kam

C: Council Members
Habitat Committee Members
Salmon Advisory Subpanel Members

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December 8, 2006

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

RE: Docket Number P-2082 (Pacific Fishery Management Council's Comments on the Draft Environmental Impact Statement, and Essential Fish Habitat [EFH] Recommendations for the Klamath Hydropower Project).

Dear Secretary Salas:

The Pacific Fishery Management Council (Council) submits these comments regarding the Draft Environmental Impact Statement (DEIS) for Hydropower License for the Klamath Hydroelectric Project (P-2082). Under §305(b)(3)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the Council is obligated to comment on activities that are likely to substantially affect essential fish habitat (EFH) for salmon. The Council has identified EFH for fall Chinook and coho within the Klamath River below Iron Gate Dam.

First, we reiterate our comments sent in a letter dated April 24, 2006 (enclosed). In that letter, the Council submitted its recommendation that the Federal Energy Regulatory Commission (FERC) order the removal of the lowermost four dams on the Klamath River (Iron Gate, Copco 1 and 2, and JC Boyle Dams). FERC replied to the Council's letter on May 12, 2006, noting that "We will consider your April 24, 2006, EFH comments under section 10(a) of the Federal Power Act as we prepare our Draft Environmental Impact Statement (DEIS)… We will look forward to your comments and any EFH recommendations after you've reviewed our DEIS and EFH Assessment." We note with disappointment that the DEIS contains no alternative for the removal of all four lower Klamath dams.

In that the current DEIS does not include an option for removal of the four lowermost dams on the Klamath River, we believe it is inadequate in addressing the full range of reasonable alternatives as required by 40 CFR 1502.14. Further, FERC's proposed final action is unclear. Although FERC is mandated to follow prescriptions submitted to it by the Secretaries of Commerce and the Interior under Section 18 of the Federal Power Act, it has failed to include the preliminary prescriptions for fishways in its "Staff Alternative." Similarly, FERC has failed to include many of the preliminary 4(e) conditions in its "Staff Alternative." These conditions were based upon facts that were affirmed by an Administrative Law Judge in September 2006. FERC needs to clearly lay out a preferred alternative that includes these terms and conditions which, when finalized, will be mandatory.

The Council also believes that FERC's EFH analysis is inadequate. On page 5-88, FERC addresses EFH issues as they relate to the Klamath River Hydroelectric Project. This analysis reiterates the measures that PacifiCorp and FERC propose in the DEIS, and then, comparing with today's extremely impaired baseline, states that the proposed action will "not adversely affect EFH" (page 5-89). We strongly disagree with this conclusion, and with the selection of today's impaired conditions as a baseline. In fact, we note that in May 2005 U.S. District Judge James A. Redden remanded a National Oceanic and Atmospheric Administration (NOAA) Biological Opinion on Columbia Basin hydropower operations because, in part, NOAA had included dams as part of the baseline conditions in that system.

As the near-shutdown of ocean salmon fisheries demonstrated this year, the low abundance of Klamath fall Chinook abundance can be the constraint that closes otherwise healthy fisheries. The economic consequences that result from the degradation of EFH caused by the Klamath Hydroelectric Project can be quite large. Future actions to improve salmon EFH in the Klamath River are needed to avoid the situation whereby fishery-dependent communities along the coasts of California and Oregon and in the Klamath River bear the associated unfortunate consequences of lack of action.

In summary, the Council requests that FERC add a four dam removal scenario to its analysis and that the full extent of the effects of all alternatives on pristine EFH be disclosed. In addition, we believe FERC must modify its "Staff Alternative" in any further EIS efforts to reflect the mandatory conditions placed upon the new license by the Departments of the Interior and Commerce. Lastly, based upon the content of our April 24, 2006 letter and the recommendations of numerous individuals, agencies, and other organizations, we strongly recommend FERC select the four dam removal option as the preferred alternative.

Thank you for the opportunity to comment.

Sincerely,

Don Hansen, Chairman
Pacific Fishery Management Council

JDG:sks

Enc: April 24, 2006 letter from PFMC to FERC

c: Council Members
Habitat Committee
FERC Required Service List Distribution
Salmon Advisory Subpanel
Salmon Technical Team

Scientific and Statistical Committee
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PACIFIC FISHERY MANAGEMENT COUNCIL

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April 24, 2006

Ms. Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

RE: Docket Number P-2082 (Pacific Fishery Management Council's Essential Fish Habitat [EFH] Recommendation for the Klamath Hydropower Project)

Dear Ms. Salas:

The Pacific Fishery Management Council (Council) hereby submits its EFH recommendations and formal comments on the relicensing of the PacifiCorp hydroelectric project on the Klamath River. The recommendations are the result of focused deliberation at the Council's March and April meetings, including extensive public testimony and expert advice from scientific and fishery-related advisory bodies. We understand that we may have missed a recent deadline for these comments, but due to the timing of the established public Council process, this is the earliest we are able to provide them. We ask that you give them your full consideration.

For the reasons below, the Council recommends that the Federal Energy Regulatory Commission (FERC) order the decommissioning and removal of Iron Gate, Copco 1, Copco 2, and J.C. Boyle dams on the Klamath River. We ask that you proceed with the development of a decommissioning plan, in consultation with resource agencies, tribes, and other interested parties, that provides full restoration of habitat in and below the project dams and reservoirs. FERC should also consider including mitigation funds to restore future anadromous habitat above the project.

This recommendation is consistent with National Marine Fisheries Service's (NMFS) recommendation pursuant to Section 10(a) of the Federal Power Act (FPA): "The Licensees shall develop and implement a plan to remove the lower four Project dams..., restore the riverine corridor, and bring upstream and downstream fish passage facilities at Keno Dam into compliance with NMFS guidelines and criteria within 10 years of license issuance, expiration, or surrender."[1, 2]

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[1] National Marine Fisheries Service (March 24, 2006). Letter and Attachments from Rodney McInnis to Magalie Salas re: *Comments, Recommended Terms and Conditions and Preliminary Prescriptions for the Klamath Hydroelectric Project, FERC Project 2082*. Page C-4.

[2] We understand that the Keno and Link Dams are not currently being relicensed, and are limiting our recommendations at this time to the four lower dams. However, in the long term, the Council calls upon FERC to improve conditions for anadromous fish in the Klamath River by addressing the operations of Keno and Link Dams.

Background

During the last several years, the Council has written frequently to FERC, the U.S. Bureau of Reclamation, and the U.S. Department of the Interior regarding impacts of Klamath River management on salmon habitat.[3] Although anadromous fish stocks fluctuate naturally, it is now clear that factors associated with hydropower generation, including lack of fish passage and water quality impacts, have had a consistent and increasingly detrimental impact on Klamath River salmon. The Council believes the operations of the full complex of dams in the Klamath River basin can be the limiting factor for anadromous salmonids abundance, and are likely the controlling anthropogenic factor during drought years. Therefore, we believe changes in the effects of these dams offer the greatest opportunity to increase population abundance.

The Council's concerns about dam operations have been heightened in recent years by the low abundance of naturally spawning fall Chinook salmon. As you may know, ocean salmon fisheries on the West Coast target a complex of stocks from various rivers that have consistently produced harvestable surpluses. Under the Council's salmon fishery management plan, fisheries in this ocean complex are managed to achieve the spawning objective of the weakest stock, which has frequently been Klamath River natural fall Chinook. In 2004 and 2005, abundance was so low that the spawning escapement fell below the 35,000 conservation objective in both years. Unfortunately, in 2006 it is expected that the Klamath natural fall Chinook stock abundance will fall even further, to a disastrously low level.

In 2005, fishing off most of Oregon and California was virtually halved to meet the Klamath River fall Chinook natural spawning objective. This year, ocean salmon fishing in this area will be cut back a further 75% to protect these fish. The inriver recreational fishery on adult fall Chinook will be closed in 2006. Inriver tribal fisheries will also be severely affected. The cutbacks and closures adopted by the Council to protect these Klamath River fish will have enormous economic and social impacts on West Coast fishing communities. The effects are so severe that the Governors of the States of Oregon and California have formally called for the Secretary of Commerce to declare a fishery disaster, as provided for under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) §312(a).

Basis for Council Recommendation

There is both a legal basis for the Council's recommendation and a strong rationale to justify it. Legal standing for the Council's recommendation is provided by the MSA. Under §305(b)(3)(B), the Council is obligated to comment on activities that are likely to substantially affect EFH for salmon.[4] In turn, the Federal government is obligated to consider the Council's recommendations and to reply

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[3] December 15, 2005, to U.S. Bureau of Reclamation (BOR) on management of Klamath water flows; April 21, 2005 to U.S. Department of the Interior (DOI) on flow management and essential fish habitat (EFH) in the Klamath basin; April 23, 2004 to FERC on EFH concerns related to PacifiCorp Klamath River Hydroelectric Project FERC-2082; July 7, 2003 to BOR on EFH concerns related to the Klamath project; April 23, 2003 letter to the DOI related to water flows in the 2003 Klamath operations plan; April 22, 2003 to FERC on relicensing rules; December 4, 2002 to the DOI and Secretary of Commerce on the adverse impacts of reduced flows to Klamath salmonids; May 13, 2002 to FERC on EFH conservation responsibilities; April 22, 1999 to BOR on the Klamath project environmental impact statement. Letters available at http://www.pcouncil.org/habitat/habdocs.html.

[4] "[Each Council] shall comment on and make recommendations to the Secretary and any Federal or State agency concerning any such activity that, in the view of the Council, is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority." MSA§305(b)(3)(B)

in writing within 30 days.[5] The rationale for the Council's recommendation includes the Council letters and background considerations referred to above and the information provided below.

We understand that the Klamath hydropower project is now operating under an annual license, and that any new long-term license may be in effect for up to 50 years. The Council does not make recommendations for interim annual licenses in this letter, though we believe that until a long-term license is granted, FERC should protect and fully mitigate damages to anadromous salmonids and their habitat with the dams in place. Some recommendations from others, such as those provided by NMFS and U.S. Fish and Wildlife Service pursuant to Section 10(j) of the Federal Power Act for interim modifications to hatchery management and ramping rates, may be appropriate. However, the Council will address recommendations for interim licenses in a separate letter following further public process and discussion.

The Council's recommendation for dam removal is made with the recognization that several factors beyond FERC's jurisdiction can harm Klamath River anadromous stocks.[6] Water withdrawal practices reduce water availability downstream, and timber harvest practices, road building, parasites, and other factors impact stocks. We further recognize that some recommend fish passage at the project dams instead of their removal.

The Long Range Plan for the Klamath River Basin Conservation Area Fishery Restoration Program clearly identifies the lack of passage through and beyond the project area as a significant limitation on the Klamath River anadromous fish resource[7]. Under the current license, the lower three project dams (Iron Gate, Copco 1 and Copco 2) are not equipped with fish passage facilities, and the facilities at J.C. Boyle Dam do not conform to accepted passage criteria. PacifiCorp's proposed license under FERC does not provide passage for anadromous fish.

Lack of fish passage at the Klamath Project facilities blocks access to more than 400 miles of migration, spawning, and rearing habitat for salmon, steelhead and Pacific lamprey, including access to channel areas inundated by the project, access to tributary habitat within the project area, and access to currently-blocked habitat in the upper watershed[8]. The habitat within and above the project area was historically an important producer of spring Chinook, fall Chinook and coho. Reintroducing anadromous fish above the current barrier of Iron Gate Dam is a key component of Klamath River Basin restoration. We understand significant resources are now being directed toward improving potential habitat in the Upper Klamath Basin above Upper Klamath Lake.

Even with fish passage at each of the projects, the following dam-related problems within and below the project area would remain unaddressed:

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[5] "Within 30 days after receiving a recommendation under subparagraph (A), a Federal agency shall provide a detailed response in writing to any Council commenting under paragraph (3) and the Secretary regarding the matter. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on such habitat..." MSA§305(b)(4)(B)

[6] National Research Council (2004). *Endangered and Threatened Fishes in the Klamath River Basin – Causes of Decline and Strategies for Recovery*. Washington, D.C.: U.S. Department of Interior and U.S. Department of Commerce.

[7] Klamath River Basin Fisheries Task Force and William M. Kier Associates, 1991. *Long Range Plan for the Klamath River Basin Conservation Area Fishery Restoration Program.*

[8] We recognize that Keno dam, upstream of the project area, now blocks most upper watershed habitat for anadromous salmonids.

- Loss of spawning and rearing area in the Klamath River between Iron Gate and J.C. Boyle dams
- Effects of hydroelectric peaking operations, including reduced flows in bypassed reaches; effects of large flow fluctuations in peaking reaches; reduced abundance of macroinvertebrates; restricted fish movement; decreased water quality; and fish stranding
- Impacts of water impoundment, including changes to water temperature, dissolved oxygen, and nutrient loads; gravel depletion; altered flood flows; and enhanced conditions for toxic algae blooms and parasitic disease vectors
- Alteration of the natural hydrologic regime, including loss of thermal refugia and ecosystem function

In summary, the Council believes removal of the dams is a necessary step in recovering currently unsuitable habitat in the project reach, in providing access to suitable habitat upstream of the project, and in normalizing water conditions below Iron Gate Dam.

Costs and Benefits

The value of ocean fisheries is high when Klamath natural Chinook are abundant, but can be much lower when Klamath fish constrain the catch of other healthy stocks. The Council estimates that between 1970 and 2004, the average annual personal income impacts of the recreational and commercial ocean salmon fishery in the area where Klamath fish are found amounted to $92 million. The constraints on the fishery in 2006 caused by the need to protect Klamath River natural fall Chinook are expected to reduce the value of this fishery to less than $33 million. In contrast, the Klamath hydropower project produces 163 megawatts with an annual net economic value of $16.3 million.[9] NMFS notes that the "generating capacity provided through continued Project operations is nominal…relative to the watershed level of benefits to aquatic resources and regional and national priorities for restoring anadromous salmonids."[10] The California Energy Commission reviewed the effects of full or partial decommissioning and concluded that "because of the small capacity of Klamath hydro units… removal of these units will not have a significant reliability impact on a larger regional scale."[11]

Providing fish passage would be a major endeavor, with cost estimates ranging up to $200 million.[12] The cost of dam removal has been estimated at $35.8 million.[13] Based on these estimates, it is not clear that providing fish passage is a superior economic alternative to dam removal.

It may not be appropriate to directly compare the loss of $59 million in the ocean salmon fishery in one year, due to the low abundance of Klamath River Chinook, with the $16.3 million in power generated annually at the four project dams and the $35.8 million cost of dam removal. However, it may well be that the annual value of the portion of the fishery affected by Klamath River Chinook compares favorably to the annual value of the electrical power. It may also compare favorably with the cost of dam removal, given the number of years that fishery benefits will accrue after the dams

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[9] California Energy Commission (2004). California Energy Commission Staff Comments on PacifCorp's Final License Application to the FERC for the Klamath Hydroelectric Project, FERC No. 82.
[10] National Marine Fisheries Service (March 24, 2006), op. cit.
[11] California Energy Commission, op. cit.
[12] PacifiCorp spokesman Dave Kvamme in "A Good Week for Klamath Salmon." *Sacramento Bee*, March 30, 2006, page A3.
[13] G&G Associates (2003). *Klamath River Dam Removal Investigation*. Seattle, Washington: G & G Associates.

are removed. Further, it must be noted that a comprehensive economic analysis of the benefits of dam removal needs to include the benefits of habitat improvement to all Klamath River fish populations, not merely one stock (naturally spawning fall Chinook) in one fishery (the ocean salmon fishery).

Conclusion

The Council believes the proposed relicensing of this project will have substantial adverse impacts on EFH in the Klamath River. The project causes harm to salmon habitat; to the health of fish stocks; to commercial, recreational, and tribal fisheries; and to fishing communities along the Oregon and California coasts and in the Klamath River basin. Consequently, the Council recommends that FERC order the immediate decommissioning and removal of the four lower Klamath River dam structures and full restoration of habitat affected by the dams and reservoirs.

Sincerely,

Donald O. McIsaac
Executive Director

JDG:rdd

c: Council Members
Habitat Committee
FERC Required Service List Distribution
Salmon Advisory Subpanel
Salmon Technical Team
Scientific and Statistical Committee
Dr. Donald McIsaac
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Mr. Phil Dietrich