

DRAFT

The Honorable Gale Norton
Secretary of the Interior
United States Department of the Interior
1849 C. Street N.W.
Washington, DC 20240

Dear Secretary Norton:

This letter presents concerns of the Pacific Fishery Management Council (Council) regarding the U.S. Bureau of Reclamation (USBR) June 4, 2002, Klamath Project (Project) 2002 Annual Operations Plan (amended July 10, 2002 from a "below average" to a "dry" water year), the USBR development of a Long-Term Project Operations Plan and the National Marine Fisheries Service (NMFS) May 31, 2002 Biological Opinion (BO) on the effects of the Project on federally threatened southern Oregon /northern California coasts (SONCC) coho salmon (*Oncorhynchus kisutch*). The Council is also concerned that consultation between the NMFS and the USBR on the effects of Project operations on essential fish habitat (EFH) may have been inadequate to avoid or minimize adverse impacts to the EFH of two Council managed species: coho salmon and chinook salmon.

The Council was created by the Magnuson-Stevens Fishery Conservation and Management Act in 1976 with the primary role of developing, monitoring and revising management plans for fisheries conducted within federal waters off Washington, Oregon and California. Subsequent congressional amendments in 1986, 1990 and in 1996 added emphasis to the Council's role in fish habitat protection. Amendments in 1996 directed the NMFS, as well as the regional fishery management councils, to develop conservation recommendations for federal or state agency activities which may affect the EFH of the fishes it manages. The Council has identified and described EFH for chinook and coho salmon under Amendment 14 to the Pacific Coast Salmon Fishery Management Plan (PFMC, 1999). The operational plans of the Project have a direct influence on the EFH of coho and chinook salmon. Such EFH includes the water quantity and quality parameters necessary for successful adult migration and holding, spawning, egg to fry survival, fry rearing, smolt migration and estuarine rearing of juvenile coho and chinook salmon.

An unprecedented and disastrous fish kill in the lower Klamath River in September, 2002, resulted in a conservatively estimated loss of more than 30,000 returning adult salmon, according to the U.S. Fish and Wildlife Service. Most of the mortalities were fall chinook salmon, although hundreds of coho salmon and steelhead trout were also killed. In 2002, ocean and inriver fisheries have been managed to allow a projected fall chinook spawning escapement to the Klamath basin of 57,000 adults, of which 35,000 were expected to spawn in natural areas and a total of 22,000 at Iron Gate and Trinity River Hatcheries. The fish kill may result in an inability to meet the fall chinook minimum natural spawning escapement goal of 35,000 adults for the Klamath basin this year and the loss of the reproductive potential of these fish could result in diminished adult returns three, four and five years into the future. There have already been severe negative impacts to the 2002 inriver recreational and tribal fisheries.

The depleted status of Klamath River Basin natural coho and fall chinook stocks has been a constraining factor in the management of ocean fisheries along the Pacific coast from northern Oregon to south of San Francisco since 1978. In order to protect weak Klamath fish stocks, the Council has had to on many occasions reduce the harvest of all salmon in otherwise healthy mixed stock fisheries where Klamath salmon occur. Despite complete closures to the harvest of Klamath Basin coho salmon in the ocean commercial fishery since 1993 and the ocean recreational fishery since 1994, the continued decline of this

species resulted in the listing of SONCC coho salmon as threatened under the Endangered Species Act in May, 1997. The recent fish kill will most likely delay recovery of Klamath basin coho and chinook salmon to levels that can sustain full fishing and will result in the continued economic and social hardship to Klamath Basin and coastal communities dependant on commercial and recreational fishing. Likewise, the depleted status of these fisheries will cause severe economic, social and cultural impacts to the Yurok, Hoopa Valley and Karuk Tribes of the lower basin.

Although the ultimate cause of death for most of the fish killed was disease related, low flows in the lower Klamath River acted as a barrier to upstream migration, resulting in large concentrations of stressed fish that became quickly infected. The average flows in the lower Klamath River during September, 2002 were the fifth lowest on record since 1951 (USGS Gage 11530500 Klamath R NR Klamath CA). A significant portion of that flow is contributed by releases at Iron Gate Dam which are controlled by the USBR via their annual Project operations plans. In 2001, 39.4 per cent of the flow at the mouth of the Klamath River was due to Iron Gate Dam releases. The 2002 Project Annual Operations Plan flow prescriptions at Iron Gate Dam are based on the NMFS 2002 BO Reasonable and Prudent Alternative (RPA) that purportedly avoids jeopardy to SONCC coho salmon by providing flow releases at Iron Gate Dam that approximate the **minimum monthly flows attained during the 1990-1999 period of Project operations** for each respective water year type (above average, average, dry and critically dry) (BO, Table 5, p 33). During September, 2002 (a dry water year type) an average flow of 762 cubic feet per second (CFS) was released at Iron Gate Dam, prior to initiation of a pulsed flow on September 28 (USGS Gage 11516530 Klamath R BL Iron Gate Dam CA). In 2001 (a critically dry water year type) the average flow at Iron Gate Dam was 1,026 CFS, a 34.6 per cent increase in flow over 2002. Even though the total fall chinook run was much greater in 2001 than projected for 2002, and 2001 was a drier water year type, an adult fish kill was not experienced. Thus, it appears there is a strong correlation between the low flows prescribed by the BO and implemented by the 2002 Project Operations Plan and the September, 2002 fish kill.

In the latter stages of the fish kill, additional water (the pulsed flow) was provided to the Klamath River for a two-week period from September 28 to October 10, by PacifiCorp from their hydrogenerating facilities at Copco and Iron Gate Reservoirs. This increased the flow of the river at Iron Gate Dam approximately 71 per cent to 1300 CFS and appeared to facilitate the dispersal and upstream migration of surviving salmon and steelhead trout. However, flows have since been reduced by the USBR to approximately 879 CFS and are expected to stay in that range through Spring, 2003 unless precipitation and run-off in the basin improves significantly. Additional water was not released from Trinity River reservoirs.

The Council is concerned that between now and April of next year existing and proposed low flows will adversely impact chinook and coho salmon spawning, egg incubation, fry emergence and fry rearing in the Klamath River mainstem. Our concern is heightened by the fact that these impacts will occur on populations of salmon that are already severely affected by the fish kill. To adequately address these near-term concerns and to explore immediate solutions to the Klamath River flow shortage problem, the Council recommends that the USBR form a flow management advisory committee, as soon as possible, consisting of tribal, state and federal representatives having co-manger responsibilities for Klamath River fishery resources. Convening such a group by mid-September in below average and dry years is a part of the BO RPA (BO, p 69), but the USBR has failed to do this in 2002.

The Council believes that the fish kill represents new and important information that reveals effects of Project operation that may have adversely affected threatened SONCC coho salmon and its critical habitat in a manner or to an extent that was not considered or fully analyzed in the BO. Furthermore, the fish kill may have resulted in incidental take that exceeds the amount or extent of take anticipated by the BO's Incidental Take Statement. Both of these concerns warrant reinstitution of consultation under 50 CFR §402.16 (BO, p74). The Council strongly recommends that the USBR reinstitute consultation with NMFS regarding the effects of Project operation on SONCC coho salmon and its critical habitat.

The Council is also concerned that the BO covers project operations for a ten-year period, between April 1, 2002 and March 31, 2012. The USBR is presently in the process of developing an Environmental Impact

Statement (EIS) that would support preparation of a Long –Term (10-year) Project Operations Plan (LTPOP) that would incorporate the 2002 BO as its main basis for forming Project operations. We believe that long-term commitments, once made, are difficult to change. Thus, it would be prudent for the USBR to reinstate Section 7, ESA consultation prior to finalizing the EIS and LTPOP. The Council would like to be kept fully informed if the USBR decides to continue with development of the EIS and LTPOP.

EFH conservation measures for coho and chinook salmon were appended to the BO by NMFS based on information in the BO and from other sources. The EFH regulations require the USBR, as the action agency operating the Klamath Project, to consult on EFH, to provide NMFS with a written assessment of the effects of their action on EFH and to provide a detailed written response to NMFS within 30 days upon receipt of NMFS EFH conservation measures detailing how they intend to avoid, mitigate or offset the impacts of their activity (50 CFR § 600.920). To our knowledge, the USBR has not done any of this. The Council feels strongly that the conservation recommendations prepared by NMFS are not adequately protective of either coho or chinook salmon EFH. This has been evidenced by the recent fish kill and by the USBR proposed flows that do not reflect the best available science and information. The Council urges the USBR to initiate consultation on EFH that includes all life history phases of coho and chinook salmon that may be affected by Project impacts on mainstem Klamath River habitat.

The Council notes that the Department of Interior (DOI) commissioned Dr. Thomas Hardy of Utah State University to conduct a Phase II Flow Study in the Klamath River, starting in June, 1998. The purpose of this study was to develop monthly instream flow recommendations for the Klamath River from Iron Gate Dam to the estuary for five water year types. These recommended flows were considered necessary to support salmon and steelhead populations in the Klamath River and to meet DOI's trust responsibility to protect tribal rights and resources as well as other statutory responsibilities such as the Endangered Species Act and the Magnuson-Stevens Act. A draft Final Phase II Report was released for public comment in November, 2001, but has not been finalized. NMFS used some of the information contained in this report for development of the BO, but decided not to use the Phase II flow recommendations. The Hardy Phase II effort has cost DOI \$890,000 to date and over \$1 million in services and studies have been contributed by cooperators. The Council believes that the Hardy Phase II flow recommendations represent the best available science regarding Klamath River anadromous salmonid flow needs and we urge you incorporate this information in your ESA and EFH consultations. We also encourage the USBR to finalize this report so that it can be fully accepted by the scientific community and utilized by Klamath River resource managers. Below is a comparison of the flows for above average, below average, dry and critically dry water years that the USBR plans to operate under for the next ten-years (Table 5, BO p 33) versus the Hardy Phase II recommended flows at Iron Gate Dam (Table 51). The Hardy 70% Exceedence flows are for the same water year type as the USBR dry water year flows. The Hardy flow recommendations for a dry water year type are more than twice as great as the flows under which the USBR operated in 2002 and plans to operate under in the future. In fact, the USBR proposed flows for **all** water year types and **all** months, when compare to unimpaired monthly flows (i.e. without Project flows) (Table 52) would put the Klamath River in a perpetual state of drought.

The crisis flow management exhibited on the Klamath River during drier water years is not conducive to the maintenance, much less restoration, of anadromous salmonid populations and contributes to economic uncertainty for those communities dependant on sustainable fishery resources.

Hans Radtke, PhD
Chair

w/attachments

Table 5. Iron Gate Dam flows, by time step, (values in CFS) Reclamation predicted to result from the proposed action by water year type (from Table 5.9, Reclamation 2002)

Time Step	Above Average Water Years	Below Average Water Years	Dry Water Years	Critically Dry Water Years
Oct	1345	1345	879	920
Nov	1337	1324	873	912
Dec	1387	1621	889	929
Jan	1300	1334	888	1011
Feb	1300	1806	747	637
Mar 1-15	1953	2190	849	607
Mar 16-31	2553	1896	993	547
Apr 1-15	1863	1742	969	874
Apr 16-30	2791	1347	922	773
May 1-15	2204	1021	761	633
May 16-31	1466	1043	979	608
Jun 1-15	827	959	741	591
Jun 16-30	934	746	612	619
Jul 1-15	710	736	547	501
Jul 16-31	710	724	542	501
Aug	1039	1000	647	517
Sep	1300	1300	749	722

Table 51. Monthly flow recommendations for the Iron Gate to Shasta River Reach for the 10 to 90 percent exceedence flow levels.

Exceedence	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
10	4200	5000	5400	5200	4500	3800	2300	1800	1840	1900	2200	3500
20	3585	4250	4850	4650	4100	3350	2135	1635	1705	1780	2085	2950
30	2970	3500	4300	4100	3700	2900	1970	1470	1570	1660	1970	2400
40	2685	3110	3850	3700	3400	2600	1750	1360	1460	1565	1840	2215
50	2400	2720	3400	3300	3100	2300	1530	1250	1350	1470	1710	2030
60	2200	2460	2900	2750	2600	2050	1390	1125	1225	1335	1555	1815
70	2000	2200	2400	2200	2100	1800	1250	1000	1100	1200	1400	1600
80	1750	1900	2000	1900	1850	1575	1125	1000	1050	1150	1300	1450
90	1500	1600	1600	1600	1600	1350	1000	1000	1000	1100	1200	1300

Table 52. Simulated unimpaired monthly flows for the Iron Gate to Shasta River Reach for the 10 to 90 percent exceedence flow levels.

Exceedence	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
10	5282	6439	6302	6430	5259	4163	2829	2131	2076	2169	2664	4522
20	3792	5416	5463	5391	4613	3690	2528	1935	1843	1991	2284	3541
30	3666	4245	5045	4869	4313	3473	2129	1639	1813	1885	2081	2910
40	2990	3724	4394	4541	3785	2870	1996	1490	1754	1700	2020	2460
50	2738	3072	3913	3841	3568	2689	1854	1425	1503	1589	1897	2282
60	2541	2914	3389	3078	2848	2216	1739	1300	1377	1492	1717	2100
70	2299	2559	2838	2637	2361	2033	1462	1158	1296	1450	1613	1903
80	2037	2249	2390	2342	2218	1797	1325	1141	1174	1394	1584	1762
90	1871	1922	1909	1908	1962	1533	1148	1004	1021	1163	1434	1643