

## HABITAT COMMITTEE REPORT

The Habitat Committee (HC) met on Monday, October 28, 2002 to develop comments on agenda items G.7 and G.8. The HC also discussed the following items:

### Items Needing Council action

**Klamath Flow Issues.** At the last meeting, the Council directed the HC to draft a letter regarding Klamath flow issues. This letter was drafted (Exhibit B.1, Supplemental Attachment 2). The letter includes comments on the recent fish kill and related Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations. The HC heard a presentation about the current status of Klamath flows by Mr. Michael Rode of the California Department of Fish and Game (CDFG). As a result, the HC redrafted the letter (Exhibit B.1, Supplemental Attachment 4). Additionally, the HC suggests the letter be addressed to both SOC and the Department of Interior.

**Marine Reserves.** The HC discussed the publication "The Science of Marine Reserves," just published by the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), which provides a new synthesis of information. The HC recommends the Council invite Dr. Jane Lubchenco of Oregon State University to give a presentation to the Council on marine reserves at the March 2003 meeting. Dr. Lubchenco is past president American Association for the Advancement of Science. This talk would address both the fisheries benefits of marine reserves and would relate to the development of the Programmatic Environmental Impact Statement (PEIS).

**Federal Energy Regulatory Commission (FERC).** The Council received a response from FERC to its letter of May 13, 2002 (Exhibit B.1, Attachment 1). The HC felt that the response was less than satisfactory. The HC recommends the Council re-submit the May 13 letter as formal comment to FERC as part of its new hydropower licensing rulemaking process. The deadline for comments is December 6. In addition, the HC would like to take FERC up on its offer to send a representative to discuss these issues with the HC.

### Other Items

**EFH and Programmatic Environmental Impact Statements.** The Committee heard presentations from Mr. Steve Copps and Mr. Jim Glock about progress on the two EISs. The HC also received a presentation on the progress of EFH mapping by TerraLogic Geographic Information System (GIS). Existing data sources were reviewed and limitations were discussed.

**Fishing Gear.** The HC heard an update on the EFH EIS work as it relates to describing fishing gear used in the Pacific region. The description is being finalized and will soon be made available to the public for wider review. It describes all gear used on the West Coast in groundfish fishery management plan (FMP) and non-FMP fisheries. In addition, a national review of literature on benthic habitat/fishing interactions has been prepared. The review describes what is known about fishing gear impacts on benthic habitat. These will be used as background for the risk assessment to be included in the EFH EIS.

**EFH Tracking and Database.** The HC was informed about progress on updating the groundfish EFH appendix for the groundfish FMP appendix 11. The appendix, which consists of life history descriptions of the 82 groundfish species, has been updated. In addition, an EFH database is currently being developed. The database will be an integral part of the EFH EIS, and will allow the public and decision makers to easily access information by topic, including habitat type, location, fish species, prey, and life stage.

**Groundfish fleet reduction project.** HC members attended a presentation on Ecotrust's work to create a model to analyze impacts of fleet reduction efforts.

**National Environmental Policy Act (NEPA) Applicability.** The HC heard about an effort by the Navy to circumvent NEPA to avoid preparing an environmental impact statement on the effects of high-energy sonar testing in the area 12 to 200 miles offshore. Although this effort failed, other attempts to weaken habitat-related legislation are taking place on many fronts. The HC will continue to track and report on these matters.

**Marine Aquaculture.** The HC heard the National Marine Fisheries Service was requesting comments regarding offshore aquaculture practices, but the timeframe was too short to accommodate the Council process. Marine aquaculture may have important impacts on EFH due to disease and pollution concerns. The HC will continue to track this issue.

**Power Plant Effects.** At the September meeting, the Council requested the HC to look into power plant effects on Council managed species. The HC is gathering information on this topic and will arrange a presentation for its April meeting.

PFMC  
10/29/02

STATE OF CALIFORNIA-THE RESOURCES AGENCY

GRAY DAVIS, Governor

**DEPARTMENT OF FISH AND GAME**

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**RECEIVED**

OCT 15 2002

**PFMC**



October 9, 2002

D.O. McIsaac, Ph.D.  
Executive Director  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 200  
Portland, OR 97220-1384

**Subject:** Environmental Document for Marine Protected Areas in NOAA's Channel Islands  
National Marine Sanctuary (SCH# 2001121116)

Dear Dr. McIsaac:

In a letter dated July 15, 2002, you submitted comments on behalf of the Pacific Fishery Management Council (PFMC) to the California Fish and Game Commission (Commission) and the California Department of Fish and Game (Department) regarding the draft environmental document (ED) referenced above.

The draft ED, dated April 2002, which the Department released for public review on behalf of the Commission on May 30, 2002, addresses the potential for environmental impacts associated with the Department's recommendation that the Commission designate marine protected areas pursuant to the Marine Life Protect Act (Fish & G. Code, § 2850 et seq.) in a portion of the State waters included in the Channel Islands National Marine Sanctuary (Proposed Project).

The Department's responses to the comments you provided on behalf of the PFMC are enclosed for your consideration. (See generally Cal. Code Regs., tit. 14, § 781.5, subds. (c), (h).) These comments and the Department's responses are included in Chapter 8 of the final ED for the Proposed Project dated October 2002, which is now available to the public.

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D.O. McIsaac  
October 9, 2002

The Commission will address the Proposed Project and may take action regarding the Department's recommendation at a special meeting of the Commission in Santa Barbara, on October 23, 2002.

Please contact me at the address and telephone number listed above if you have any questions.

A handwritten signature in black ink, appearing to read 'John Ugoretz', with a long horizontal flourish extending to the right.

John Ugoretz  
Senior Marine Biologist

Enclosure

## Responses to Comments from the Pacific Fishery Management Council.

Comment 1: Chapter 4 provides the appropriate baseline.

Response 1: Comment noted.

Comment 2: The document does not address the potential impact of status quo.

Response 2: The No Action Alternative (status quo) would not achieve project goals and objectives because it would result in the continuation of current habitat and population trends (See Draft ED, Chapter 4). As noted in the PFMC Phase I Technical Analysis of marine reserves (Parish et al. 2001), the estimated biomass of the majority of West Coast groundfish species have long-term downward trends. This is also true for some other species. For example, since 1985, abundances of harvestable red urchins (*Strongylocentrotus franciscanus*) have declined by 1% per year at fished sites on Santa Rosa and San Miguel Islands relative to non-fished reserve sites on Anacapa Island (S. Schroeter & D. Reed, analysis of NPS data). The commercial fishery for rock crab (*Cancer* spp.) has localized effects on crab abundance and size. Crab fishing areas intensively exploited over an extended period show a lower catch-per-trip and reduced size frequency distribution compared to lightly exploited areas (Leet et al. 2001). Very little is known about the long term status of many other stocks, including certain invertebrates and nearshore rockfish. Effective management of marine fisheries must take into account uncertainties about the status of stocks and the entire ecosystem supporting them, which is an integral component of the proposed project as recommended by the Department. The failure to take such an approach, in the Department's view, is to compromise ongoing efforts to rebuild overfished stocks and avoid other management actions that could have dramatic negative consequences for the fisheries.

Comment 3: The rationale for rejecting the alternative to defer to the MLPA is not clear.

Response 3: The impacts of deferring any Commission action regarding MPAs in the Sanctuary to the ongoing MLPA process are unknown. Because this process could result in either the status quo (same as No Action) or new MPAs, it is not possible to predict potential environmental impacts (See Draft ED at p. 6-64). Certainly, deferral is not contemplated in the MLPA. The act states that it is not intended to restrict any existing authority of the Department or the Commission to make changes to improve the management or design of existing MPAs or designate new MPAs. The proposed project falls squarely into this category.

Deferring any action to the MLPA process could diminish the benefits and dilute the high level of local involvement and input that occurred during the planning of the proposed project. From a socioeconomic standpoint, the potential economic impacts to local harbors and communities – and, more importantly, to local individuals as expressed during the planning process – may be diluted by the overall economy of California. Further, an incremental approach would not necessarily avoid

socioeconomic impacts to recreational fishing, but would only draw them out. Finally, the Department believes that deferring any action to the MLPA process will not achieve project goals and objectives to the same degree as the proposed project.

Comment 4: The document does not address the problems of displaced effort in particular the potential for habitat effects.

Response 4: The potential impacts of congestion in general are described in the Draft ED at pages 5-17 through 5-18, and within the proposed project on page 5-31. This discussion indicates that, although certain activities will be displaced spatially by MPAs, the level of displacement is relatively low, with any added pressure outweighed by expected benefits to the fishery. These benefits would include more sustainable resources in the long-term as well as potential increases in catch due to added production from within MPAs. The key question regarding congestion is whether the expected increase in export from reserves can compensate for the increased fishing pressure in non-reserve areas. If it does, fishery yields will show a net increase or remain the same despite the displaced effort. If congestion leads to a negative habitat impact, populations on the borders of reserves would be expected to show an equivalent decline. As described in the Final ED on page 5-18, the comprehensive reviews of reserves by Halpern (2002) and Palumbi (2002) suggest that production increases inside reserves are considerably larger than expected increases in take outside reserves. In the case of the proposed project, 100% of the effort would be limited to approximately 81% of the area (with a 19% closure). The empirical data in these studies suggest that enhanced production within reserves can more than compensate for the effects of congestion outside for reserve areas as high as 50%. These conclusions are supported by empirical data outside reserves. Studies consistently show increases in abundance immediately outside reserves that would not occur if habitat impacts were negative (e.g., Roberts et al. 2001; Stevens and Sulak 2002; Murawski et al. 2000; McClanahan and Kaunda-Arara 1996; Ratikin and Kramer 1996; and Russ and Alcala 1996b).

The MLPA, with which the proposed project must be consistent, expressly requires the Department, in evaluating proposed projects with potential adverse impacts, to highlight those impacts and to recommend measures to avoid or fully mitigate any impacts that are inconsistent with MLPA goals and guidelines, or the objectives of the MPA. Thus, the MLPA itself provides additional safeguards against the proposed project having significant adverse environmental impacts. As a result of this evaluation, the Department concluded that no such significant adverse impacts will result from the proposed project. Further, although the phenomenon of congestion has been determined not to rise to the level of a significant impact, the Department notes that the adaptive management component of the proposed project, as required by the Marine Life Protection Act, which includes ongoing monitoring, research and evaluation after project approval, will provide ongoing information regarding post-approval environmental conditions. This information, along with the Department's authority to recommend additional management measures to the Commission, will ensure that approval of the proposed project does not result in any significant environmental

impacts. This would not be limited to creation, modification, or removal of MPAs and could include measures such as reduced allowable catch, increased size limits, seasonal closures, etc.

The proposed project is not deficient because it does not provide economic mitigation for impacted commercial fisheries. The concept of "mitigation" referenced in the Draft ED is in relation to environmental impacts to the resource itself, not to the socioeconomic activities related to the resource. Because no project-related significant effects are expected, mitigation measures are unnecessary under CEQA. Indeed, economic and social effects of a project are not environmental impacts per se for purposes of CEQA. Accordingly, no economic mitigation to impacted fisheries is required.

Comment 5: Information on the specific level of effort and displacement is necessary to determine the relative impacts.

Response 5: Spatially explicit data on use are scarce for California as a whole, as well within the project area. The numbers provided in the Draft ED for maximum potential loss to consumptive users is one way to gauge potential displacement. This does not, however, show the number of vessels that might be forced into closer proximity on a given day. The Department has added spatially explicit data on use to the document to help show the level of displacement each reserve might cause. This information can be found on page 5-32 in the Final ED. The Department rejects the implied assertion that absolute scientific certainty is necessary before the Commission takes action with respect to the proposed project. Neither the MLPA nor any other legal authority mandates such an approach. In fact, the MLPA expressly contemplates and requires use of the "best readily available science" and the Draft ED adheres to such a standard. In the absence of location-specific empirical evidence, scientific theory and theoretical studies form the basis of best readily available science. Because there is little location-specific empirical evidence, the best readily available science regarding the proposed project, alternatives and their respective effects is grounded in sound scientific theory and theoretical analysis. Moreover, one of the reasons underlying the MLPA to establish MPAs in the first place is to obtain environmental "baseline information" and "and to establish environmental reference points." For this reason, the MLPA expressly contemplates the application of "adaptive management" in areas of scientific uncertainty as a framework to adjust management actions in response to monitoring, research and data indicating the need for such changes. The scientific basis for expected results of the proposed project are discussed in detail in the Draft ED Chapter 5. See also Response to Comment 4 above.

Comment 6: The document's threshold of significance for habitat representation is not adequately explained.

Response 6: The threshold of significance for biological impacts is defined on page 5-6 of the Draft ED as "any impact that has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a

fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory.” Consistent with CEQA, this significance threshold serves as a gauge or measure to assess whether project-related impacts on biological resources are significant. The Department, in this respect, believes the threshold of significance is adequately explained. The comment appears, in part, to confuse CEQA's obligation to establish a significance threshold for project-related environmental impacts with the Department's recommendation regarding reserve size, as compared to the SAP's recommendation. The CEQA threshold of significance for biological resources, as noted above, is clearly articulated in the Draft ED at page 5-6. The comment, in contrast, refers to the criteria used for “the purpose of comparison” of habitat representation found discussed in the Draft ED in Section 5.3.1 on pages 5-6 through 5-18. These criteria were used in order to examine the relative biological benefits of the proposed project and each alternative, not (as in the case of the significance threshold) the potential for project-related environmental impacts. Chapter 5 has been reorganized and minor editorial corrections made to make this difference more apparent.

Comment 7: Beyond the issue of size, the SSC notes that habitat representation is a fundamentally sound approach to determining which areas to place in reserves for protecting biodiversity.

Response 7: Comment noted.

Comment 8: Substantial fisheries benefits on a stock-wide scale are unlikely to result under any of the MPA alternatives at CINMS. More specifically, the arguments for expected fisheries benefits (pp. 6-66, 6-67 and Figure 6-1) are technically weak and not compelling.

Response 8: The Department agrees that stock-wide benefits are difficult to predict and may not occur. This is in part true because the study area was limited to the Sanctuary boundaries. However, this was not identified as an objective or goal of the MRWG process (see Draft ED Appendix 3, p A3-7). The Department also agrees that the statements made on the referenced pages and the figure used as an example by the commenter were difficult to understand. Given that they were not necessary in determining the potential for negative environmental impacts or in developing the criteria for comparison of alternatives, these statements and graph were removed from the final document. See Response to Comment 5 above regarding the need for scientific certainty.

Comment 9: The SSC agrees 1996-1999 is a reasonable baseline period for commercial fisheries. The SSC agrees with the assessment that activities within the CINMS account for less than 1% of total income and employment in the seven county area of impact.



Response 9: Comment noted.

Comment 10: The SSC requested documentation be added to the Draft ED (or at least the socioeconomic analysis) regarding how consumer surplus estimates were derived.

Response 10: The estimations of consumer surplus were developed by Leeworthy and Wiley and described in their report (Leeworthy and Wiley 2002). Though, the Department feels the justification for these estimates is adequately described in their report, Leeworthy and Wiley have also sent a specific response to this and other comments to the SSC. Leeworthy and Wiley's response is included in the Final ED as Appendix 7. Changes in the estimates of consumer surplus would not alter the potential impacts to the natural environment described in the Draft ED.

The Department prepared a detailed economic impact analysis as part of the planning process for the proposed project even though economic and social effects of a project are not environmental impacts per se for purposes of CEQA. The results are included in the potential impacts to the human environment in Section 5.4 and Chapter 6 of the Draft ED. This economic analysis will be incorporated into the Fiscal and Economic Impact Statement, which will be reviewed by the Trade and Commerce Agency and must be approved by the Department of Finance. After that, the Department, on behalf of the Commission, will submit the analysis to the Office of Administrative Law as part of the rulemaking file required to promulgate regulations. Against this backdrop, the Department believes the existing economic analysis provides important information to the Commission and public at large that will foster informed public decisionmaking.

Comment 11: The SSC considers the estimates of profits for the party/charter sector quite reliable.

Response 11: Comment noted.

Comment 12: It is not clear to the SSC why the value of fisheries at Tortugas should be a reasonable proxy for the value of fisheries at CINMS.

Response 12: The estimate of consumer surplus were developed by Leeworthy and Wiley and are incorporated in the Draft ED by reference. The method for determining this number is described on page 108 of Leeworthy and Wiley, 2002. They note that their estimates are not technically correct in that they overstate the commercial fishing values. Even so, since the same estimates were used for all alternatives, their use for estimating relative socioeconomic impacts among alternatives is still valuable. See also Response to Comment 10 above.

Comment 13: In order to apply the results used to determine elasticities (0.04, 1.0, and 4.5) for potential increases in recreational quality, it is necessary to make unsubstantiated assumptions.

Response 13: The Department acknowledges that these types of estimates are highly subjective. They were used as a general reference in order to compare economic impacts among Alternatives. Since the same range of elasticities was used for each alternative, the relative socioeconomic impacts are useful, if not exactly precise. See also Response to Comment 10 above.

Comment 14: The SSC expresses several reservations regarding the estimation of non-use values and the net benefits assessment found in Chapter 6 of the Draft ED. They also suggest that the benefits and potential costs of monitoring, research, and management should be analyzed.

Response 14: The Department appreciates this comment. The net benefit assessment was not critical to the development or comparative analyses of the proposed project. Section 6.8.2 of the Draft ED has been revised to more clearly represent potential costs and benefits in a qualitative manner. Quantitative references to potential benefits have been removed in the Final ED. Analysis of non-physical social and economic effects, however, is not required by CEQA. In this regard, the Department believes the Draft ED includes more than adequate social and economic analysis to foster informed public decisionmaking and disclosure as those issues concern project-related environmental impacts. Along the same lines, the Department believes the Draft ED includes sufficient social and economic information and analysis to assist decisionmakers in determining whether project-related environmental effects are significant under CEQA. Quantification of passive use values requires the application of complex economic valuation techniques that do not contribute to the determination of whether the proposed project has significant adverse impacts to the environment. See also Response to Comment 10 above.

Comment 15: The proposed project may have local benefits and, as part of a larger system, may help provide stock-wide benefits.

Response 15: The Department agrees.

Comment 16: Substantially more scientific work is needed before proceeding.

Response 16: The Department rejects the implied assertion that absolute scientific certainty is necessary before the Commission takes action with respect to the proposed project. Neither the MLPA nor any other legal authority mandates such an approach. In fact, the MLPA expressly contemplates and requires use of the "best readily available science" and the Draft ED adheres to such a standard. In the absence of location-specific empirical evidence, scientific theory and theoretical studies form the basis of best readily available science. Because there is little location-specific empirical evidence, the best readily available science regarding the proposed project, alternatives and their respective effects is grounded in sound scientific theory and theoretical analysis. Moreover, one of the reasons underlying the MLPA to establish MPAs in the first place is to obtain environmental "baseline information" and "and to establish environmental reference points." For this reason, the MLPA expressly contemplates the

application of "adaptive management" in areas of scientific uncertainty as a framework to adjust management actions in response to monitoring, research and data indicating the need for such changes. The scientific basis for expected results of the proposed project are discussed in detail in the Draft ED Chapter 5.

One of the benefits of MPAs is that they provide a buffer against management uncertainty by maintaining portions of a habitat or population in a natural state that will provide baseline information and reference points against which scientists can measure changes elsewhere in the marine environment. In addition, the Channel Islands National Park Kelp Forest Monitoring program already provides a baseline of information for 16 sites that have been monitored for 20 years. The proposed project includes 7 of these 16 within MPAs, allowing comparison of changes after implementation. Analysis in the Draft ED is based, in part, on monitoring results over the past 20 years. In addition the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) monitors 6 additional subtidal sites. The PISCO sites have been monitored since 1999 and provide additional baseline information relied on in the Draft ED.

Comment 17: One impact may be displacement of effort into the albacore fishery.

Response 17: The Department believes any such impact will be less than significant under CEQA. See Response to Comment 4 above. The Department also notes that the PFMC will have jurisdiction over the albacore fishery when the Highly Migratory Species FMP is adopted, which is expected to occur in November 2002, and regulations are implemented in 2003. The Department will provide management input and coordinate with the PFMC to the extent feasible, which will help ensure that any project-related impacts to the albacore fishery remain less than significant.

Comment 18: The document fails to consider the body of opinion that finds only theoretical basis for a 30-50% set aside.

Response 18: The MLPA does not require scientific certainty prior to acting. Instead, any MPA-related decisions must be based on the best readily available science. Scientific theory and theoretical studies in the absence of empirical evidence form the basis of best readily available science. The Department, in this respect, relied on more than the single recommendation of a 30-50% set aside to develop the proposed project. The Department relied on a much broader spectrum of scientific input, as well as existing and new fisheries management strategies. See also Response to Comment 16 above.

Comment 19: A minority of the (PFMC Coastal Pelagic Species Sub-panel) advisors generally supports the proposed project.

Response 19: Comment noted.



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October 23, 2002

VADM Conrad C. Lautenbacher  
U.S. Navy Retired  
Under Secretary of Commerce for Oceans and Atmosphere  
Department of Commerce  
14th and Constitution Avenues  
Washington, DC 20230

RE: Improved coordination in National Oceanic and Atmospheric Administration (NOAA)  
consideration of Marine Protected Areas on the West Coast

Dear VADM Lautenbacher:

We would like to bring to your attention a matter of concern that occurred recently which detracts from the spirit of teamwork and orderliness you have been cultivating within the NOAA organization. The incident involves an August 29, 2002 letter from the Office of the Assistant Secretary for Oceans and Atmosphere sent to the California Department of Fish and Game (CDFG) that compromises and may pre-empt the extensive efforts of the Pacific Fishery Management Council (Council) to provide input into the ongoing consideration for marine reserves in areas in and near the Channel Islands National Marine Sanctuary (CINMS).

Over the past 18 months, the Council has worked closely with the CINMS, CDFG, and California Fish and Game Commission staff in considering marine reserves in the Channel Islands area. The Council's role in this matter was based on the effect the state action would have in limiting the reasonable range of alternatives available to the Council for the implementation of complementary reserves in federal waters of the CINMS, a role designated for the Council under the National Marine Sanctuaries Act (NMSA). Since the beginning, all parties have been up-front and collaborative towards the goal of providing each other's input such that all parties are aware of each other's positions prior to any party formally acting to establish a marine reserve. The Council spent considerable time and resources reviewing the basis for marine reserve alternatives and the California Environmental Quality Act (CEQA) impact analysis document, and was in the final stage of formulating a recommendation on eight alternatives being considered; at each step the Council heard from expert advisory bodies and took public comment on the record.

Then to our surprise, we received without notice or expectation, and conspicuously on the eve of the Council meeting scheduled to adopt a final recommendation, a copy of the aforementioned letter. It contained three elements we considered surprises, (1) a NOAA recommendation for one of the eight alternatives, (2) language inconsistent with a socioeconomic analysis concern we believe to be a significant problem, and (3) it was noticeably omissive of any reference to the role of the Council in the process of establishing marine reserves in this area. The existing bureaucratic chain of command whereby the Council is advisory to the National Marine Fisheries Service, which organizationally reports to the NOAA administration, left the Council with the feeling that our extensive efforts may have been

rendered irrelevant. In that the Regional Fishery Management Councils represent the federal government public interface for offshore fishery management matters with the fishing industry, conservation groups, the general public, and regional state governments, tribal governments, and local governments, the Council is concerned all of these groups participating in our input process were also procedurally neutralized. The Council questioned the NOAA process that lead to the letter in question. Further, the Council was left with a question of whether the sequence of relative policy development designated in the Magnuson-Stevens Act and the NMSA for such matters remains intact.

The Council went ahead with their scheduled deliberations on this matter, and have submitted comments that are not consistent with the position in the NOAA letter as to recommended alternative and certain other matters. After the vote on this matter, the Council members tasked me with providing this letter to you.

An important goal of the current NOAA Strategic Plan is to "Improve NOAA's abilities to serve its customers and forge stronger ties with its partners and stakeholders" (page 1 of the Executive Summary). The Council is in a unique partnership with NOAA under the Magnuson-Stevens Act; many stakeholders interact with federal fishery management primarily through the Council. Prior to the August 29, 2002 letter, the process for mutual consideration of marine reserves on the West Coast between NOAA entities had worked relatively well; the CINMS staff have been very professional and responsible during the Channel Islands marine reserves process, National Ocean Service staff have been a pleasure to work with on various issues since the Council Chairmen's meeting in Sitka, Alaska earlier this year, and managers from other West Coast National Marine Sanctuaries have been cordial in their desire for an open discussion of upcoming matters of mutual concern. However, from the Council's perspective, the August 29, 2002 letter did not further the stated NOAA strategic goal for improved working relationships.

Achieving needed marine reserves is a common goal in both the Pacific Groundfish Strategic Plan "Transition to Sustainability" and the NOAA Strategic Plan "A Vision for 2005." The Council offers this letter in the spirit of improving collaborative processes towards common goals and maximizing our operational efficiency. Please advise if we should alter our approach or role in developing recommendations on marine protected areas on the West Coast.

Thank you for your understanding on this matter, and please don't hesitate to contact me should you have any questions.

Sincerely,



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

DOM:kla

c: Dr. William T. Hogarth  
Council Members  
Mr. Joe Urovitch  
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October 8, 2002

Mr. Robert Treanor, Executive Director  
California Fish and Game Commission  
PO Box 944209  
Sacramento, CA 94244-2090

RE: Marine Reserves in Channel Islands National Marine Sanctuary

Dear Mr. Treanor:

The Pacific Fishery Management Council (Council) appreciates the opportunity to work with the California Fish and Game Commission (Commission), the California Department of Fish and Game (CDFG), and the Channel Islands National Marine Sanctuary (CINMS) on issues associated with the potential development of marine reserves in California's Channel Islands. For the past several months, the Council, the Commission, and CINMS have been working to develop mutual understanding on this issue before any initial regulatory decision is made. This process has been a prime example of multi-agency cooperation, and the Council would like to stress our appreciation to you and the Commission for your attention to interjurisdictional collaboration.

As we noted in our letter of July 15 to the CDFG, the Council would like to provide comments for the Commission's October 23, 2002 deliberations on this matter. On August 14-15, 2002, the Council's ad hoc committee on marine reserves policy met in El Segundo, California to discuss the Council's position on the alternatives being formally considered in the Channel Islands marine reserves process. The full Council considered the committee's recommendations, as well as those of its advisory bodies and the public, at its recent meeting in Portland, Oregon. The Council has developed the following comments.

First, we note that successful marine reserves are built on the basis of strong scientific and expert opinion. Accordingly, we are providing three reports from the Council's Scientific and Statistical Committee (SSC) and eight reports made by the other Council advisory bodies. The first SSC report, which was also sent to you on November 29, 2001, is a critique of the scientific basis for evaluating the size of the marine reserves. The second SSC report addresses shortcomings in the California Environmental Quality Act (CEQA) document, and was submitted to the CDFG during the CEQA comment period. The third SSC report provides specific replies to the memorandum from Dr. Vernon Leeworthy and Mr. Peter Wiley responding to SSC comments on the CEQA economic analysis.

Regarding the eight alternatives before you, we offer the following.

**Guiding philosophy.** The Council primarily manages fisheries in federal waters, and supports the rights of states to make decisions pertaining to state waters without substantial Council involvement unless those decisions pose major problems or benefits to federal management. In this situation,

where the Council will be asked by the Marine Sanctuary Program to take specific actions—the scope of which will depend on the precedent set by the State of California—it is important for the Council and its advisory bodies to review the proposed state actions before they are finalized. This provides the Council an opportunity to identify its concerns, thereby increasing the probability that federal implementation will go smoothly and reducing the possibility of conflict between the state and federal levels. Having reviewed the analysis available at this time, we do not find the marine reserve alternatives for state waters of CINMS, taken by themselves, pose major problems or promise substantial fishery-wide benefits in Council-managed areas.

**Consistency with the Groundfish Strategic Plan.** The Council is concerned that state actions that affect federal waters be consistent with the Council's Groundfish Strategic Plan. The Plan's goal regarding marine reserves is "to use marine reserves as a fishery management tool that contributes to groundfish conservation and management goals, has measurable effects, and is integrated with other fishery management approaches" (Groundfish Strategic Plan 2000:10). Six of the eight alternatives contribute to groundfish and groundfish habitat conservation, albeit in a small way from a total stock perspective. We believe that establishing a statistically valid monitoring and evaluation program in the early planning stages is critical to determining any measurable effects. Coordination to date has contributed to integration of any state action with federal fishery management, although we will note later in this letter that shortcomings in the CEQA document hinder the prospects of full integration with marine reserves in adjacent federal waters.

**Precedence.** The Council is aware that considerations to establish marine reserves are gaining momentum in California, Oregon, and Washington, and views marine reserves as a potential management tool. The Council fully expects to see more proposals for marine reserves along the West Coast and regards the potential reserves in the Channel Islands as a precedent for the future. Please consider adopting clear and distinct objectives, a strong plan for monitoring and evaluation, and a credible enforcement program as prerequisites in order to set a strong precedent for future marine reserves on the West Coast.

**Interaction with fishery management plans.** The Council has reviewed the interaction of the proposed marine reserves with existing and future federal fishery management plans (FMPs). The Council currently has FMPs for groundfish, salmon, and coastal pelagic species, and a draft FMP for highly migratory species. Each of these includes a description of essential fish habitat. At this point, the eight alternatives proposed in the CEQA document appear to offer no substantial impairments or benefits in regard to stock productivity and total harvest opportunities in Council-managed fisheries. This is because the relative area affected by the marine reserves is small, and because Council management is determined by the optimum yield (OY), which takes into account maximum sustained yield (MSY) and rebuilding plans on a stock-specific basis. However, the Council recognizes there will be notable local effects on habitat and resident species, as well as on harvest opportunities in the Channel Islands area. In addition, the importance of marine reserves in the Channel Islands may increase if a broader network of marine reserves is developed.

In the proposed alternative outlined by the CEQA document, fisheries for pelagic species are allowed in some areas otherwise closed to fishing. The CEQA document defines pelagic finfish as northern anchovy, barracudas, billfishes, dolphinfish, Pacific herring, jack mackerel, Pacific mackerel, salmon, Pacific sardine, blue shark, salmon shark, shortfin mako shark, thresher shark, swordfish, tunas, and yellowtail (p. 5-23). The Council feels that should a marine reserves alternative go forward that exempts these species for fisheries, it should also include all pelagic finfish species managed by the Council in its FMPs. In this regard, pelagic and bigeye thresher shark should be added to your list of pelagic species.



**Essential fish habitat.** Six of the eight marine reserve alternatives would contribute to meeting the Council's federal mandate to protect essential fish habitat for Council-managed species.

**Cumulative impacts.** Should marine reserves be established in the Channel Islands, there are likely to be substantial cumulative impacts for both commercial and recreational fisheries when the reserves are combined with the closures on the continental shelf recently adopted by the Council, the closure of the Cowcod Conservation Areas, and possible future state actions to establish additional closures. Seasonal fishing area closures to protect birds are also under consideration for the Channel Islands. These combined impacts will undoubtedly result in shifts in fishing effort, resulting in increased interactions with both the nearshore fish stocks in the remaining open fishing areas and the current participants in those fisheries. It is possible the OY for some Council-managed fisheries may need to be reconsidered.

We would also note the significance of these reserves for Council-managed fisheries might increase if a network of reserves is created along the coast. While a single reserve within a network might have a small effect, the collective impacts of multiple reserves on federal fisheries could be significant. Incremental consideration of marine reserves should not lose sight of synergistic impacts, either adverse or beneficial.

**Recommendations.** The Council offers no recommendation for a particular alternative, as the eight alternatives do not appear to substantially harm or benefit Council interests in the long term. However, with regard to reopening part of the Cowcod Conservation Area (recommended under the proposed project), we would like to reiterate the need to keep that area closed in order to protect overfished groundfish stocks, particularly cowcod and bocaccio; please also note our recommendation regarding exclusion for pelagic and bigeye thresher shark should pelagic species exemptions be granted.

Although we have not recommended a Council preferred alternative within state waters, we must note that due to the analytical shortcomings in the CEQA document identified by the SSC and other Council advisory bodies, we cannot definitively evaluate the suite of proposals to develop a preferred alternative for the federal water areas from 3-6 miles and beyond. We continue to be troubled by the shortcomings the SSC identified in the socioeconomic analysis included in the CEQA document. In order to improve the analysis, it is important that errors and misinterpretations of the literature be corrected, that sources of uncertainty in the analysis be explicitly identified, that all conclusions be carefully substantiated, and that monitoring, evaluation and enforcement costs be estimated. These inadequacies need to be satisfactorily addressed before the Council can consider the federal waters portion of the Channel Islands reserves. It is possible a National Environmental Policy Act (NEPA) analysis may identify impacts not covered in the CEQA analysis. Therefore, we cannot state with certainty that if the state implements a particular marine reserve alternative in state waters, we will recommend the accompanying closure of areas in adjacent federal waters.

Regarding the implementation process, we would like to outline two options regarding the staged implementation of reserves in this area for your consideration. Under both, marine reserves would be implemented in a two-step process, in which the first step would be for the state to implement marine reserves in the 0-3 mile zone and the second step would involve federal areas outside 3 miles. In the first option, we recommend conducting a thorough monitoring, research and evaluation program for five years after state and federal implementation of some *initial stage* of a selected alternative is completed, then proceeding to *full implementation of the selected alternative* guided by the knowledge gained during the first stage of the process. The second option is the approach recommended in the CEQA document. This approach would fully implement a particular alternative in state water areas. The complimentary marine reserves in federal waters would follow, in a process that would take approximately two years.

Finally, we would like to reiterate that from the Council's perspective, monitoring, evaluation, and enforcement are critical aspects of both of these alternatives, and of marine reserve efforts in general. Only through monitoring and evaluation will we understand the effects of marine reserves on fish populations and fisheries. The Council's Scientific and Statistical Committee emphasizes that proper monitoring and evaluation plan should be developed before marine reserves are established. The plan should incorporate monitoring requirements into reserve design; should include specific criteria tailored to the goals of the marine reserve; and should provide a statistically valid basis for evaluating whether these criteria are being met. Clearly, these efforts will require sufficient funding and staffing. This knowledge is vital if marine reserves are to gain momentum and acceptance as a fisheries management tool.

Again, thank you for the opportunity to comment. Our Executive Director, Dr. Donald McIsaac, is available to speak to the Commission about the Council's views regarding marine reserves in the Channel Islands and other related issues, such as the Council's actions to protect overfished rockfish. Please coordinate with him regarding appropriate scheduling.

Sincerely,



Hans Radtke  
Chairman

c: Council members  
Dr. Donald McIsaac  
Council staff officers  
Council committee chairs  
Mr. Orlando Amoroso  
Ms. Kathy Fosmark  
Mr. Duncan MacLean  
Dr. Robert Lea  
Mr. Sean Hastings  
Mr. Matthew Pickett  
Dr. Robert Leeworthy  
Mr. Peter Wiley

JDG:rdh

Enclosures

30 September 2002

The Honorable W.J. "Billy" Tauzin, Chairman  
House Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515-1919

The Honorable Jeff Bingaman, Chairman  
Senate Committee on Energy and Natural Resources  
364 Dirksen Senate Office Building  
Washington, DC 20510-6150

Re: Alternative Conditions and Fishways Provisions Before Energy Conference  
Committee

Dear Representative Tauzin and Senator Bingaman:

Adoption of the Senate floor amendment Alternative Conditions and Fishways, Section 301, by the Energy Conference Committee would be a catastrophe for America's rivers and fisheries.

With this subtly written amendment to the Federal Power Act, the hydropower industry will evade the responsibility it has had since the industry's inception to provide fishways where its facilities block important fish runs, as well as, weaken its obligation to protect the federal lands that a dam impacts. The Senate amendment would end most of the fish passage improvements that nearly every state with hydropower facilities has obtained over the last decade as old dams have begun to be relicensed. In contrast, the House provision, which the House Energy and Commerce Committee unanimously accepted, adopts best practices and prevents any abuses that might occur. Please vote to adopt section 401 instead of Senate section 301.

The effects of the Senate provision are not apparent upon first reading and the Senate floor debate did not raise them. Yet, this amendment would change the fishway standard to emphasize hatcheries and off-site mitigation at a time when the Nation has learned that hatcheries are not a good substitution for access to the important spawning and rearing habitat of declining fish species. The amendment also stealthily attempts to ensure that the recommendations of a hydropower licensee will prevail over those of a federal agency secretary, states, tribes, and the effected public in administrative and judicial challenges.

### **House Section 401**

Both the hydropower industry and the environmental community supported the positive changes House section 401 brings to the relicensing process and opposed all amendments to it in committee and on the floor. The provision preserves the responsibility and discretion of federal agencies to condition licenses as necessary to protect the resources they manage from the adverse impacts of a hydropower project and to prescribe fish passage above and below a dam if appropriate at that site.

Over the last hundred years federal agencies have both attempted to obtain too much with this authority and failed to exercise it at all, so the House provision allows all parties to a proceeding to propose alternatives to ensure that the best ideas and most reasonable approaches are brought forward and refined. The Secretary must accept an alternative so long as it provides as much protection and is either less costly to implement or will result in improved operation. As a result, the provision protects federal resources while ensuring that conditions and prescriptions are as inexpensive and efficient as possible. The provision is practical and based upon the experience the Nation gained when the licenses of over a hundred and fifty hydropower facilities expired in 1993.

### **Senate Section 301**

The Senate section reduces the fish passage standard an alternative must meet by inserting the phrase "fish resources" and thereby diverting its emphasis to off-site mitigation and hatcheries instead of fishways. Under this provision a Secretary would have to accept alternatives proposed by a licensee, but not alternatives proposed by States and tribes, which have extensive expertise and responsibilities to protect water and fish resources. The provision also would allow a licensee to determine what level of resource protection the licensee believes is needed to protect federal lands that are impacted by the facility, rather than to meet the level of protection contained in the Secretary's proposal. It also provides a licensee decision criteria and litigation tools to force its determination on a Secretary.

Further, Senate section 301 attempts to ensure that the views and determinations of a license applicant will prevail in suits and administrative proceedings by inappropriately requiring a condition or fish passage prescription to be evaluated using broad public purpose criteria instead of the site-specific impacts of a hydropower facility. Once a project has met the requirements of state and federal environmental and natural resource statutes, state public utility and siting commissions use similar criteria to determine whether a license is in the public interest. However, substitution of these criteria at this stage in the licensing of an energy facility is inappropriate.

More generally, Oregon opposes efforts to weaken state and federal mandatory conditioning authority, especially state certification authority under section 401 of the Clean Water Act. Our experience is that most delay in the process is due to incomplete license applications. The appearance of delay on the part of states, which cannot act affirmatively on incomplete information, stems from the Federal Energy Regulatory Commission's decision to redefine the date at which a state's review begins. While applicants often complain about delay, they suffer no penalty from the delay they often

introduce, because the Commission annually extends expired licenses until an applicant completes the process. States dislike extended delay, because projects continue to operate under licenses that do not meet the requirements of modern environmental law and knowledge. Relicensing does not jeopardize the hydropower industry. Hydropower facilities are among the most valuable assets in a utility's portfolio, selling for far more than their book value.

The relicensing experience of the last ten years demonstrates that the Commission's process can be shortened and achieve broad public support when participants collaborate and respect each other's needs and responsibilities. Oregon is committed to being a good partner in hydropower relicensing and believes that the desired streamlining and efficiency can be achieved without reducing protections for the natural resources impacted by hydropower facilities. I urge you to adopt section 401 of the House-passed version of HR 4 in place of section 301 of the Senate-passed version of the bill.

Sincerely,

John A. Kitzhaver, M.D.

cc: Members of the House and Senate Energy Conference Committee





DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>  
601 Locust Street  
Redding, California 96001  
(530) 225-2300



September 30, 2002

RECEIVED

OCT 15 2002

PFMC

Mr. Dave Sabo, Area Manager  
Klamath Basin Area Office  
U.S. Bureau of Reclamation  
6600 Washburn Way  
Klamath Falls, Oregon 97603

Dear Mr. Sabo:

Water Quality of Emergency Flow Releases  
Iron Gate Reservoir to the Klamath River

The Department of Fish and Game (DFG) understands that flow releases were increased from 760 cfs to 1300 cfs at midnight on Friday, September 27, 2002, from Iron Gate Dam. This emergency release is in response to the major fish kill occurring in the lower Klamath River. It is not clear if flows from upper Klamath Lake and other associated reservoirs were also increased concurrently. DFG is extremely concerned that releases from Iron Gate Dam alone will rapidly deplete the epilimnion and lead to significant water quality degradation in the Klamath River. Depletion of the epilimnion without replenishment of flows from upstream will result in releases from the anoxic hypolimnion. Specifically, hypolimnion releases may lead to low dissolved oxygen, high biological oxygen demand, high pH and high ammonia concentrations which could result in further fish kills in the river. In addition, depletion of the epilimnion will result in the loss of suitable oxygenated habitat for fish in Iron Gate and could lead to a fish kill in the reservoir itself.

It is imperative that releases from Iron Gate Dam are coordinated with upstream releases from the Klamath Project as would occur under normal project operations. The DFG also believes that releases in accordance with past operating standards will result in the best opportunity to protect fishery resources given the existing circumstances.

Sincerely,

Donald B. Koch  
Regional Manager

Mr. Dave Sabo  
Page Two  
September 30, 2002

cc: Mr. Kirk Rogers, Regional Director  
Mid-Pacific Region  
U.S. Bureau of Reclamation  
2800 Cottage Way  
Sacramento, CA 95825-1846

Mr. Bob Davis  
Klamath Basin Area Office  
U.S. Bureau of Reclamation  
6600 Washburn Way  
Klamath Falls, OR 97603

Mr. Rod McInnis  
Acting Regional Administrator  
and Mr. Jim Lecky  
Southwest Region  
National Marine Fisheries Service  
501 West Ocean Boulevard, Suite 4200  
Long Beach, CA 90802-4213

Mr. Joe Blum  
National Marine Fisheries Service  
650 Capitol Mall, Suite 6070  
Sacramento, CA 95814-6070

Ms. Irma Lagomarsino, Supervisor  
National Marine Fisheries Service  
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Messrs. Steve Thompson,  
John Engbring, and  
Ms. Mary Ellen Mueller  
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Mr. Bruce Halstead, Project Leader  
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U.S. Fish and Wildlife Service  
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Mr. Phil Dietrich  
Yreka Fish and Wildlife Office  
U.S. Fish and Wildlife Service  
1829 South Oregon Street  
Yreka, CA 96097

Mr. Steve Lewis  
Klamath Ecosystem Restoration Office  
U.S. Fish and Wildlife Service  
6610 Washburn Way  
Klamath Falls, OR 97603

Mr. Doug Tedrick  
U.S. Bureau of Indian Affairs  
1849 C Street, N.W., MS 3061-MIB  
Washington, DC 20240

Mr. Scott Bergstrom  
U.S. Department of Interior  
Office of the Solicitor  
1849 C Street, N.W., MS 6456  
Washington, DC 20240

Ms. Susan Masten, Chairperson  
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Eureka, CA 95501

Mr. Duane S. Sherman, Chairperson  
Hoopa Valley Tribe  
Post Office Box 1348  
Hoopa, CA 95546

Mr. Alvis Johnson, Chairperson  
Karuk Tribe  
Post Office Box 1016  
Happy Camp, CA 96039

Mr. Allen Foreman, Chairperson  
Klamath Tribes  
Post Office Box 436  
Chiloquin, OR 97624



Mr. Dave Sabo  
September 26, 2002  
Page Three

cc: Mr. Jim Lone, Chairperson  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 200  
Portland, OR 97220-1384

Mr. Glen Spain  
Northwest Regional Director  
Pacific Coast Federation of  
Fisherman's Associations  
Post Office Box 11170  
Eugene, OR 97440-3370

Dr. Thomas B. Hardy, Director  
Institute for Natural Systems  
Engineering  
Utah State University  
Logan, UT 84322-4110

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Oregon Department of Fish and Wildlife  
1850 Miller Island Road West  
Klamath Falls, OR 97603

Mr. Zeke Grader  
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3000 Bridgeway, Suite 104  
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Mr. Curtis Knight  
California Trout  
205 North Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

Mr. Tom Weseloh  
California Trout  
1976 Archer Road  
McKinleyville, CA 95521

Mr. Dwight Russell, Chief  
Northern District  
Department of Water Resources  
2440 Main Street  
Red Bluff, CA 96080-2398

The Honorable Dick Dickerson  
Assembly Member, Second District  
100 East Cypress Avenue, Suite 100  
Redding, CA 96002

Mr. Robert C. Hight, Director  
Department of Fish and Game  
1416 Ninth Street  
Sacramento, CA 95814

Mr. Michael R. Valentine, Chief Counsel  
Department of Fish and Game  
1416 Ninth Street  
Sacramento, CA 95814

Mr. Robert Treanor, Executive Director  
California Fish and Game Commission  
1416 Ninth Street  
Sacramento, CA 95814

The Honorable LaVada Erickson, Chairperson  
Siskiyou County Board of Supervisors  
Post Office Box 1179  
Mt. Shasta, CA 96067-1179

The Honorable Bonnie Neely, Chairperson  
Humboldt County Board of Supervisors  
825 Fifth Street  
Eureka, CA 95501

Mr. Dave Sabo  
September 26, 2002  
Page Four

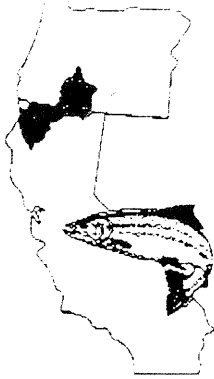
cc: The Honorable Chuck Blackburn, Chairperson  
Del Norte County Board of Supervisors  
583 G Street, Suite 1  
Crescent City, CA 95531

The Honorable Chris Erickson, Chairperson  
Trinity County Board of Supervisors  
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Weaverville, CA 96093-1258

Mr. Blair Hart, Chairperson  
Shasta River Coordinated Resources  
Management Planning Group  
Post Office Box 459  
Montague, CA 96064-0459

Mr. Gareth Plank, Chairperson  
Scott River Watershed Council  
Post Office Box 268  
Etna, CA 96027

Mr. George Thackery, President  
Board of Directors  
Siskiyou County Resource  
Conservation District  
Post Office Box 268  
Etna, CA 96027



## Klamath Fishery Management Council

*Working to Restore Anadromous Fish in the Klamath River Basin*

1829 South Oregon Street, Yreka, California 96097

Tel: (530) 842-5763/ Fax: (530) 842-4517

October 10, 2002

California Commercial  
Salmon Fishing Industry

California Department  
of Fish and Game

California Offshore Sport Fishery

Hoopa Valley Indian Tribe

Klamath In-River Sport Fishery

National Marine Fisheries Service

Non-Hoopa Indian Representative

Oregon Commercial  
Salmon Fishing Industry

Oregon Department  
of Fish and Wildlife

Pacific Fishery Management  
Council

U.S. Department of the Interior

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

Subject: Klamath River Fish Kill

Dear Secretary Norton:

The Klamath Fishery Management Council (KFMC) is a federal advisory committee charged with developing recommendations to state, federal, and tribal agencies for the management of river and ocean fisheries that affect the Klamath River Basin anadromous fish populations. Congress created the KFMC specifically to assist the National Marine Fisheries Service (NMFS), the Oregon Department of Fish and Wildlife, the California Department of Fish and Game, and the Yurok and Hoopa Valley Tribal governments in managing the harvest of this valuable resource in a rational, coordinated, and sustainable fashion. Klamath salmon have sustained the Indian Tribes of the Klamath Basin since time immemorial; they remain central to the cultural and religious life of the Tribes. Klamath River fall chinook salmon have long been a key stock in the development of ocean salmon harvest management measures off Oregon and California.

The mass die-off of chinook and coho salmon returning this year to the Klamath River is on a scale that is unprecedented and disastrous. As fish entered the Lower Klamath River on their annual spawning run during September, the combination of low flows and high temperatures they encountered acted as a barrier to further upstream migration. Disease spread quickly through the large congregations of stressed fish, with a resulting mortality of at least 20,000 to 30,000 chinook salmon and hundreds of coho salmon, according to the US Fish and Wildlife Service.

Ocean and river fisheries were managed this year to return 57,000 adult spawners to the spawning grounds and the Basin's two hatcheries. The effect of the loss of a major portion of the spawning population will not be known until the spawning ground surveys and hatchery returns in the Klamath and Trinity River Basins are complete. The fish harvest by local tribes will be far below their anticipated levels.

and the river sport fishery has been impacted as well. Moreover, the impacts to this year's spawning population may have long-term implications to future production.

The hostile environment that fish often face in the Klamath River is a result of the cumulative physical and biological damage caused by land and water use throughout the Basin, including the Klamath and Trinity projects. This year is the first under the Bureau of Reclamation's (BOR) newly proposed 10-year operations plan for the Klamath Project. Under that plan, the September flows delivered into the Klamath River from BOR's Klamath Project were substantially less than were delivered in 2001, which was a drier year.

The KFMC and the Pacific Fishery Management Council expend substantial agency resources in developing ocean, river and tribal harvest plans designed to return a specific number of salmon to the Basin's natural spawning grounds and hatcheries, in order to ensure sustained production of the stock. These efforts, and the consequent constraints on coastal fisheries, may be rendered pointless by a fish kill of this magnitude.

The KFMC believes that a die-off of this magnitude constitutes new and important information that is relevant to 1) assessing the effects of the BOR's operation of the Klamath Project on recovery efforts for coho salmon, which are listed as threatened under the Endangered Species Act; 2) the ability of the federal government to manage ocean fisheries under the Magnuson-Stevens Fishery Conservation and Management Act; and 3) the ability of the federal government to fulfill its trust responsibilities to Indian tribes in the Klamath Basin. In the coming weeks, additional information will become available on the causes and consequences of the fish die-off. The KFMC recommends that the BOR and NMFS consider this new information, as well the Hardy Phase II report, and the National Research Council's final report in any decisions regarding future operation of the Klamath Project.

The events of last month demonstrate that the effects on essential chinook habitat may not have been adequately considered in the Magnuson-Stevens Act essential fish habitat consultation that was conducted in conjunction with BOR's Endangered Species Act section 7 consultation with NMFS on coho salmon. The KFMC urges the BOR to re-initiate consultation regarding the impact of the Klamath Project on essential fish habitat. Habitat elements that provide for all life history stages must be considered. In drier water years, adverse effects to chinook salmon habitat may be greater than to coho salmon habitat, due to chinook's greater reliance on the availability of suitable spawning habitat in the main stem of the Klamath River.

The brief release of additional water by the BOR seems to have coincided with movement of fish upstream. However, we remain concerned that the subsequent flow reductions may have numerous negative effects on the reproductive success of surviving adults. More importantly, this type of crisis management is not conducive to the long-term sustainability of salmonids in the Klamath Basin, nor to the well-being of the communities that depend on the natural resources of the Basin. In light of the BOR's tribal trust responsibility, as well as other legal obligations, the Klamath

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Secretary Gale Norton, United States Department of the Interior

Page 3

Project must be managed to provide sufficient flows to sustain a healthy Klamath River ecosystem, including all freshwater life stages of all anadromous fish within the river.

Sincerely,



Daniel Viele  
Chairman

cc: Secretary of Commerce  
Senator Feinstein  
Senator Wyden  
Senator Smith  
Senator Boxer  
Congressman Walden  
Congressman Thompson  
Congressman Herger  
Congressman DeFazio



FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

SEP 19 2002

**RECEIVED**

SEP 23 2002

**PPMC**

Hans Radtke, Chairman  
Pacific Fishery Management Council  
7700 N.E. Ambassador Place, Suite 200  
Portland, OR 97220-1384

**Reference: Commission Licensing Activities in the Pacific Northwest**

Dear Mr. Radtke:

Thank you for your May 13, 2002 letter concerning Commission hydroelectric licensing activities and fishery resources of the Pacific Northwest. I apologize for the lateness of this response; however, I wanted to give you the most current news.

Your letter discussed a variety of matters, including Essential Fish Habitat (EFH), the Electric Consumers Protection Act (ECPA), fish passage, the National Environmental Protection Act (NEPA), including cumulative impact assessment, instream flow, water quality; the Endangered Species Act (ESA); and adaptive management. Your letter also expressed your concerns about the Alternative Licensing Process (ALP) and expressed your desire for shorter license terms and asked that we support reopening of licenses to address environmental concerns.

We share your goal of minimizing the negative environmental impacts of hydroelectric development, in a manner consistent with our statutory responsibilities and authority. To that end we have been participating in a number of activities and initiatives with federal and state resource agencies aimed at improving the licensing process with respect to stakeholder involvement and coordination of efforts of all parties involved. These include:

- The cooperative development, with the National Marine Fisheries Service, of a process for coordinating compliance with the EFH requirements of the Magnuson-Stevens Act during our environmental review process for licensing and post-licensing actions;
- Participation in interagency workshops, including the Interagency Task Force (ITF), the Interagency Hydropower Committee (IHC),

and the 603 Report, addressing a number of concerns including the ALP process, endangered species, NEPA, noticing, and licensing studies; and

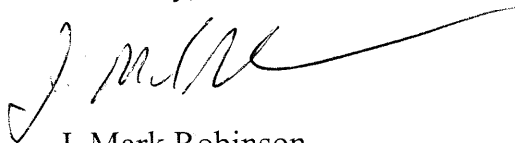
- A series of workshops with the states concerning water quality certification under Section 401 of the Clean Water Act.

With respect to your suggestion that the Commission adjust license expiration dates of hydraulically connected projects in order to allow a better assessment of watershed-based cumulative impacts of these projects, please note that we have been successful in doing this on limited occasions. However, our authority to issue licenses of various terms is limited under the Federal Power Act. In addition, we can not generally change the term of an existing license without the consent of the licensee.

On September 12, 2002, the Commission, in conjunction with the United States Departments of Agriculture, Commerce, and Interior, issued a public notice providing interested entities an opportunity to enter into discussions and make comments and recommendations concerning adoption of a new hydropower licensing process. A copy of the notice is available on the Commission's web site at <http://www.ferc.gov/RM02-4-09-05-02.pdf>. We invite your participation in this endeavor, as it would provide an excellent forum to address many of the issues you raise in your letter.

We appreciate your interest in Commission activities and look forward to establishing a dialogue with the Council with respect to these matters. We would welcome the opportunity to send a representative to one of your Habitat Committee or other appropriate meetings to further discuss these issues. Should you desire to pursue this, please contact John Mudre of my staff (202-502-8902 or [john.mudre@ferc.gov](mailto:john.mudre@ferc.gov)) to discuss scheduling.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Mark Robinson', with a long, sweeping horizontal line extending to the right.

J. Mark Robinson  
Director  
Office of Energy Project

cc: Public Files



## ESSENTIAL FISH HABITAT ISSUES

Situation: The Habitat Committee (HC) will meet Monday, October 28, 2002 to develop recommendations on the following agenda items:

D.2 Adoption of Final Highly Migratory Species Fishery Management Plan  
G.7 Groundfish Programmatic Environmental Impact Statement  
G.8 Groundfish Essential Fish Habitat (EFH) Environmental Impact Statement

Other issues on the HC agenda include proposed changes to the National Environmental Policy Act (NEPA) process, Klamath flow issues (see draft letter, Supplemental Attachment 2), the habitat effects of marine aquaculture, and the Federal Energy Regulatory Commission (FERC) rulemaking process. The Council received a response to its May 13 letter to FERC, which is included as Attachment 1. In addition, in September the Council approved a letter addressed to the U.S. Army Corps of Engineers regarding Columbia River dredging. That letter was mailed on September 20.

The HC's complete agenda is provided in Ancillary B.

### **Council Action:**

1. Consider comments and recommendations developed by the HC at the November meeting.

### **Reference Materials:**

1. Letter from FERC to Council (Exhibit B.1, Attachment 1).
2. Letter to Secretary of Interior on Klamath River flows (Exhibit B.1, Supplemental Attachment 2).

### **Agenda Order:**

- a. HC Report
- b. Update on Marine Reserves
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. **Council Action:** Consider HC Recommendations

Michael Rode

PPMC  
10/15/02

**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

## HABITAT COMMITTEE PROPOSED ACTION FORM

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**HC Sponsor:** Michael Rode

**Title of Issue:** Response letter on Klamath River flow issues

**Deadline (if any):** November

Council meeting

**Proposed Action:** Letter for Council signature

**Addressed To:** Gale Norton

**cc:** Donald Evans  
**Secretary of Interior**

**Secretary of Commerce**

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**Description of Issue:** A May 31, 2002 NMFS Final BO on the effects of the U.S. Bureau of Reclamation Klamath Project on threatened SONCC coho salmon determined that if the Project were operated as proposed by the USBR in its February 25, 2002 Final BA, jeopardy would likely occur. The BO covers Project operations for a ten-year period, April 1, 2002 - March 31, 2012. The reasonable and prudent alternative (RPA) prescribed by the BO allows the USBR eight years in which to fully develop long-term flow targets at Iron Gate Dam that would avoid jeopardy, by developing a water bank from new water sources. During the ten-year period, full irrigation deliveries would occur under all water year types, while the releases at Iron Gate Dam would be the monthly minimums attained for each water year type during the 1990-1999 period plus minor pulses of water from the water bank; essentially the same flows proposed in the BA. These flows for a dry water year, such as 2002, are less than half of the annual flows recommended by the recently completed Department of Interior commissioned Hardy Phase II Klamath River flow study. The USBR plans to incorporate the 2002 BO into a ten-year long-term operations plan. The September, 2002 fish kill in the lower Klamath River occurred under the drastically reduced flow conditions prescribed by the BO and those flows are planned to remain at such low levels that further adverse impacts to Council managed coho and chinook salmon and their essential fish habitat (EFH) are anticipated. The proposed Council letter recommends that the USBR form a flow management advisory committee to address immediate concerns and potential solutions regarding the low flows. The letter further advises the USBR to reconsult with NMFS under Section 7 of the ESA on Project effects on SONCC coho salmon and its critical habitat and to reconsult on coho and chinook salmon EFH. Lastly, the letter asks that the Hardy Phase II report be finalized and that its flow recommendations be fully considered in both consultations. A previous letter regarding Klamath River flow issues was sent by the Council on June 1, 2000 (Lone to Babbitt) and regarding Trinity River flow issues on January 10, 2000 (Lone to Babbitt).

**Description of Regional Significance:** Low flows in the Klamath and Trinity Rivers have been major factors in reducing the quality and quantity of anadromous fish habitat in the Klamath River Basin and have contributed greatly to the depressed status of its coho and chinook salmon populations. These depleted populations have been a constraining factor in the management of ocean fisheries from northern Oregon to south of San Francisco and tribal and recreational fisheries of the Klamath Basin. The NMFS 2002 BO and the USBR proposed ten-year Klamath Project Operations Plan will intensify and prolong this management problem.

**Potential Adverse Impacts to EFH?**

☒ Yes

☐ No

**For Which Species?** SONCC coho and Klamath chinook salmon [any specific species of concern?]

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**Potential Benefits of Proposed Action:** The letter will ensure that the Council's opinions on the biological opinion, EFH consultation, Klamath Project Operations Plan and Hardy Phase II Flow Study are presented to the DOI and the NMFS in a timely manner.





DRAFT

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

The Honorable Donald Evans  
Secretary of Commerce  
United States Department of Commerce

Dear Secretary Norton and Secretary Evans:

The Pacific Fishery Management Council (Council) has grave concerns regarding the adverse effects of reduced flows on the anadromous salmonid fish populations of the Klamath River. The May 31, 2002, National Marine Fisheries Service (NMFS) Final Biological Opinion (BO) on the effects of the U.S. Bureau of Reclamation (USBR) Klamath Project (Project) on southern Oregon/northern California coasts (SONCC) coho salmon (*Oncorhynchus kisutch*) contains a reasonable and prudent alternative (RPA) that prescribes flows that are so low that the Klamath River will be placed in a state of perpetual drought. Such low flows will jeopardize the continued existence of SONCC coho salmon and result in the destruction or adverse modification of its critical habitat. The SONCC coho salmon is listed as threatened under the federal Endangered Species Act (ESA) and the California Fish and Game Commission has recently determined that coho salmon north of San Francisco Bay to the Oregon border are warranted listing under the California Endangered Species Act (CESA). Furthermore, these extremely low flows will cause adverse impacts to the essential fish habitat (EFH) of two Council managed species: coho salmon and Chinook Salmon (*Oncorhynchus tshawytscha*). Therefore, the Council insists that the USBR and the NMFS immediately reinstate Section 7 Endangered Species Act (ESA) consultation regarding Project effects on SONCC coho salmon and coho salmon critical habitat and reinstate consultation on Project effects on coho and Chinook salmon EFH.

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.

The BO covers Project operations for a ten-year period (April 1, 2002 - March 31, 2012), thus it's negative impacts to anadromous fish will not only be short-term but long-term as well. The BO forms the basis for the USBR 2002 Project Annual Operations Plan and the development of a Long-term (10-year) Project Operations Plan that have as their proposed action the diversion, storage and delivery of irrigation water; flow releases at Iron Gate Dam are not part of the action but would simply be the result of the action. Full irrigation deliveries are planned for all water year types during the ten-year period, yet improvements to anadromous fish flows will be dependent solely on small, incremental, yet uncertain, developments of new water. The Council believes that this type of an approach to water management is counterproductive to the numerous and expensive federal, state and tribal efforts aimed at restoring anadromous fish habitat in the Klamath Basin as well as regulatory efforts to minimize ocean and inriver fishery impacts to weak salmon stocks.

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 will likely 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 will result in diminished adult returns three, four and five years into the future. In addition, given the differential run timing for Klamath Basin substocks, escapement to some subbasins may be severely impacted. 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 southern Oregon and California ocean commercial fisheries 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 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 improve significantly.

The Council is very 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-manager 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 plans to not implement this until the year 2010.

Flows in the lower Klamath River are also influenced by accretions from the Trinity River, the Klamath River's largest tributary. Implementation of a recent Department of Interior Trinity River Record of Decision (ROD), that would have increased flows significantly, has been delayed by litigation. A court order has required the preparation of a Supplemental Environmental Impact Report (SEIS), the completion of which has been delayed by the USBR. The Council urges the USBR to complete the SEIS so that the higher Trinity River flows can be implemented in a timely fashion to benefit lower Klamath River flows.

The Council has determined that the fish kill represents new and important information that reveals effects of Project operations 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 reinitiation of consultation under 50 CFR §402.16 (BO, p74). The Council strongly recommends that the USBR reinitiate consultation with NMFS regarding the effects of Project operation on SONCC coho salmon and its critical habitat.

The Council is also deeply 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 reinitiate Section 7, ESA consultation prior to finalizing the EIS and LTPOP. The Council would like to be kept fully informed and provided the opportunity to comment 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 the USBR intends 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 minimal proposed flows that do not reflect the best available science and information. The Council strongly 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 on November 21, 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 reviewed and fully accepted by the scientific community and then 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 (exceedence means the percentage of years in which flow has been greater than that indicated) 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 which the USBR provided at Iron Gate Dam in 2002 and plans to provide 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.

To summarize, the Council recommends the following:

- ▶ Reinitiate ESA, Section 7 consultation
- ▶ Reinitiate coho and Chinook salmon EFH consultation
- ▶ Establish a flow management advisory committee
- ▶ Complete the SEIS and implement the Trinity River ROD in a timely fashion
- ▶ Provide the Council opportunity to comment on the EIS for the Long-term Project Operations Plan
- ▶ Finalize the Hardy Phase II Report and incorporate its flow recommendations in future consultations and Project operations plans

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. The Council urges you to implement our recommendations in order to reverse this dire situation.

Hans Radtke, PhD  
Chairman

w/attachments

cc: U.S. Senator Dianne Feinstein  
U.S. Senator Barbara Boxer  
U.S. Senator Ron Wyden  
U.S. Senator Gordon Smith  
U.S. Rep. Mike Thompson  
California Governor Gray Davis  
Oregon Governor John Kitzhaber  
California Secretary for Resources Mary Nichols  
CDFG Director Robert Hight  
U.S. Fish and Wildlife Service Director Steve Williams  
NMFS Administrator John Hogarth

Others as appropriate

From NMFS May 31, 2002 Biological Opinion

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

From Hardy Draft Final Phase II Flow Study Report

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

From Hardy Draft Final Phase II Flow Study Report

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	1986	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

