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Bureau of Reclamation
Klamath Area Office
Attn: Dave Sabo, Project Manager
6600 Washburn Way
Klamath Falls, OR 97603

RE: Comments on the Draft NMFS Biological Opinion for the Klamath Project impact on coho salmon (16 May, 2002)

Dear Sirs:

These are the formal written comments of the Pacific Coast Federation of Fishermen's Associations (PCFFA) and the Institute for Fisheries Resources (IFR) on the Draft NMFS Biological Opinion (BiOp) for the Klamath Project impact on coho salmon date 16 May, 2002. They are also submitted on behalf of the following organizations as well: Oregon Natural Resources Council (ONRC); Northcoast Environmental Center (NEC); The Sierra Club, Oregon Chapter; Waterwatch of Oregon, The Wilderness Society, and; the Endangered Species Coalition (ESC), which is composed of many other organizations.

General Comments

In general, there are a number of areas of the BiOp that we believe are good, and several innovative ideas. What is most innovative is that this is the first effort for the Klamath Project to develop a planning horizon longer than merely one year. Our organizations have long advocated a Long-Range Plan for the Klamath Project operations as a necessary step to bringing water stability to the Klamath Basin. This effort has never been completed. However, it is clear that there are also tradeoffs between long-term planning and scientific uncertainty that have to be dealt with in an "adaptive management" framework that takes into account decisional uncertainty as the landscape (and the rainfall) changes annually. Overall we commend the NMFS for making this effort in the Draft BiOp, believe that the current Draft BiOp is a good start but urge NMFS to more rigorously define these "adaptive management" processes.

However, we are greatly concerned that so much of the benefits that the fish might receive under the BiOp's recommended and prudent alternatives (RPAs) are "back loaded" <u>future</u> actions, and therefore are inherently speculative. In short, very little real water would be delivered to or left in the lower river over the first several years of the RPAs, until at least 2005, and with full compliance with the flow targets only required by 2010.

Unfortunately, the coho salmon are depressed down to 1-2% of historic numbers and are ESA-listed *now*, and are facing extinction *now*! They must have some relief *now* to prevent further declines and more fish kills during the upcoming next few years, or otherwise their ultimate recovery will be that much more difficult, expensive and biologically uncertain. There appears to be an effort to create phased-in future incremental change in this BiOp, primarily driven by political considerations, when the biological needs of the lower river coho and the law require *real* change to roll back a *real* extinction crisis in *real* time that is happening today.

Likewise the up-front and imminent risk of extinction seems shifted in the Draft BiOp to the resource itself, and the lower river and coastal economies that depend on that resource, and not to the federal agency (the Bureau of Reclamation) that created the problem in the first place. The Bureau of Reclamation has control over the vast majority of water in the Upper Basin, and over-promised that water for decades without any thought to the impact of these wholesale water withdrawals on the lower river and its economically irreplaceable fisheries. The Bureau therefore has the burden to reverse the damage it has caused. This principle should require that the Bureau (and not the resource) bear the risk of finding the other 43% of water necessary to meet the flow targets set forth in Table 9 (pg. 72).

While we believe the use of the "Precautionary Principle" demonstrated in the Draft BiOp is also sound, it simply does not go far enough. The precautionary approach would be to require the flow targets to be met up front, simply to prevent extinction and further damage to the public's resource, and the division between Project and non-Project water users would be worked out afterwards by the Bureau in such a way that does not jeopardize or risk the resource. If the Bureau's proposed flow levels, if implemented, will create "jeopardy" at all, then they will also likely do so if they become the *de facto* levels allowed while the RPA flow targets are phasing in over ten years.

The other broad major problem is the speculative and future nature of many of the measures to be required. The Federal Courts have repeatedly held that promised future actions, which are inherently speculative and uncertain, cannot substitute for present protections of an ESA-listed species. For instance, in *ONRC v. Daley*, 6 F. Supp. 2d 1139 (D. Or. 1998), the U.S. District Court ruled:

> "It is not enough for the NMFS to merely hope that the Oregon Legislature will in fact adopt the requisite forest practices amendments within two years and hope that they may prove to be sufficient to protect the Oregon Coast ESU. Instead, the NMFS must determine, based upon a rational analysis of the factors set forth in the ESA, and in light of current regulatory measures, that the Oregon Coast ESU is not likely to become endangered in the foreseeable future …. The whole purpose of listing species as "threatened" or "endangered" is not simply to memorialize species that are on the path to extinction, but also to compel those changes needed to save these species from extinction."

> "The NMFS may only consider conservation efforts that are currently operational, not those promised to be implemented in the future."

and also:

> "Absent some method of enforcing compliance, protection of a species can never be assured. Voluntary actions, like those planned in the future, are necessarily speculative. … Instead, NMFS must base its decision on current, enforceable measures."

In short, RPAs necessary to avoid jeopardy must be reasonably certain and present time measures sufficient to address a present problem, not future (and therefore inherently speculative) voluntary measures which may or may not ultimately be accomplished. In many regards, the Draft BiOp fails that fundamental legal test. Our more specific and detailed comments follow.

THE THINGS THAT NMFS GOT RIGHT

The Biology of Salmon: In general, NMFS did a good job of explaining the biological needs of coho salmon, the importance of additional downriver flows to their ultimate survival, and the importance of the mainstem habitat access as refugia for coho as well as a migration corridor not only for coho, but for all salmonids in the Klamath River.

It is simplistic at best for the Bureau to say that coho only inhabit the tributaries. While their niche preference is for the tributaries as opposed to the mainstem for rearing habitat, those tributaries are today typically so over-appropriated, and the remaining water of such poor quality, that coho are literally forced into the mainstem during much of the year. They are an opportunistic species, and can adapt to mainstem habitat so long as there is sufficient water in the river to allow them access to the edge habitat and food sources they need.

It would be ideal to restore the tributary habitat to sufficient integrity that coho can once again colonize those areas now lost to them. However, as NMFS rightly notes, the restoration efforts now underway are a long way from restoring the damage that has been done, and the results of those restoration efforts are highly speculative. In fact, little or nothing is being done even today to restore water back into those over-appropriated tributary streams. The only bright point is the recent Trinity River court decision restoring <u>some</u> (but not all) of the water called for in the Trinity Restoration Program Record of Decision, but that court fight is still a long way from resolution.

Use of Hardy Phase II Data: The legal standard that NMFS must use in making its ESA decisions is the "best scientific and commercial data available." In this context, the Hardy Phase II Flow Study (cited in the BiOp as: Hardy, T.B and R.C. Addley (2001), *Evaluation of Interim Instream Flow Needs in the Klamath River: Phase II* (November 21, 2002)) is the <u>best available</u> information on inriver flow needs for all salmonids in the

Klamath River, including for coho salmon. Thus its use throughout the BiOp in various contexts is not only advisable but probably required. It is no bar to its use that the study's report is in final review draft; data is data, the "best available" means just that, with of course the caveat that the report could change in its final form. The provision in the BiOp for a reopener through reconsultation if deemed necessary after a review of the final Hardy Phase II Flow Study report is ample provision for adapting to any new information the final report might incorporate.

A Precautionary Approach: Likewise NMFS's reliance on a precautionary approach to extinction is also warranted, both on the law and the biology. Extinction, as the ESA recognizes, by its very nature brooks no compromise – there is no such thing as "somewhat extinct." Though there are shades and degrees of risk of extinction, extinction itself is irrevocable. Thus it makes good sense to err on the side of species protection whenever a choice has to be made of remedies.

Our only complaint in this regard would be that NMFS does not take the precautionary approach required under the ESA far enough or to its logical conclusion: that higher river flows targets should be delivered sooner rather than later to prevent further declines of coho populations, already down to perhaps 1-2% of pre-development numbers (Brown and Moyle, 1991), that could well prove devastating to any future recovery.

Using 50% Exceedence Values: NMFS has highlighted one of several errors in the Bureau's analysis set forth in the Biological Assessment (BA). Routine use of flow exceedence values of 70% by the Bureau in its water availability projections routinely overestimates the water available, thus routinely over-commits the resource to the irrigators, and routinely short-changes all the other water users, including those with a prior legal right (such as the Tribes and ESA obligations). NMFS is correct in requiring the use of 50% exceedence values in making future water projections.

Flow Targets: Although there is room for argument over some of the target flows developed for Table 9 (Draft BiOp pg. 72), particularly in dry years, overall they are a vast improvement over those proposed by the Bureau in its BA. To the degree that they "track" Hardy Phase II flow recommendations, we would agree with NMFS that those are the appropriate targets based on the best available scientific information.

NMFS clearly sets forth the reasons for its disagreement with the vague and tentative NRC Interim Report recommendations, and also sets forth a coherent program for filling the "data gaps" that the NRC Interim Report highlighted.

NMFS also thoroughly repudiates the Bureau's methodology for arriving at its own flow proposals in its BA, rightly pointing out that not only are those proposed flow at rock-bottom levels that would effectively result in institutionalizing permanent drought in the lower river, but that the NRC Interim Report itself thoroughly repudiates levels that low. Essentially the Bureau's proposed instream flow levels in the BA were identical to those the NRC Interim Report indicated would pose an unacceptably high risk. There

was no scientific justification for reducing lower river flows to such low levels as proposed by the Bureau.

Better Water Year Typing: One of the more innovative approaches of the Draft BiOp is the division of the water year into five discrete types, from the current four being used by the Bureau (Draft BiOp pg. 59). We agree with NMFS that this re-division is much needed, and would make it possible to better distinguish between the range of likely future water years and to craft different flow regimes that better tracks actual rainfall. There currently is no such thing as an "average" water year in the Bureau's four-division scheme. This year, for example, in which rainfall is much closer to long term averages, is being treated just the same for purposes of downriver flow targets as a much drier year. Division of the water year more equitably along the precipitation Bell curve would allow much more "fine tuning" of water deliveries to the lower river commensurate with the actual precipitation as well as the biological needs of coho salmon. We support this approach.

Division Into Smaller Time-Step Increments: The division of the water year into smaller time-step increments (i.e., one week from two weeks) in Table 9 (pg. 72) for March and June is justified, and again will allow more "fine tuning" of lower river flows during this critical Spring flow period so that flows may more closely emulate the natural (i.e., pre-development) hydrograph. However, we see no reason this same logic could not apply to the months of April and May just as well. Sudden jumps between the Bureau's current two-week units might create unacceptable ramping rates resulting in strandings. Thus we believe that both April and May should also be divided into one week time-steps as well, for purposes of better management of critical Springtime flows.

Controlling Ramping Rates: The Bureau's BA completely omits controls over ramping rates. Past and more recent fish strandings are directly related to sharp drops in overall river flows. We agree with the NMFS restrictions on ramping rates, and believe that control of ramping rates is not only important for the protection of fish against strandings in edge pools, but for human safety as well.

One noticeable gap, however, is any specifics or controls over <u>daily</u> ramping rates, i.e., diurnal fluctuations of water levels largely due to hydropower operations. These sudden daily "spikes" can be quite large (see below) and should also be controlled.

Use Of Current Data from the Same Year for Early Flow Projections: NMFS indicates in language in the Draft BiOp that the Bureau should use current year data for early year water projections:

> "We also think that March flows should not be based on the previous April's water year forecast. The flow recommendation for the first week of March should be based on the 70% exceedence forecast typically released on February 6, and the remaining March flow should be based on the March 6 estimate. This will avoid a situation, for example, in which a "wet" water year leading into a "dry"

> water year would see March flows as high as 5400 CFS and April flow dropping into 1600 CFS." (Draft BiOp, pg. 69)
>
> "The flow recommendation for the first week of March should be based on the 70% exceedence forecast typically released on February 6, and the remaining March flow should be based on the March 6 estimate." (Draft BiOp, pg. 71)

We agree that the most current data should always be used for these early projections, not data almost a year old. However, we do think that the use of a 50% exceedence level in this context is probably also justified, to prevent overly optimistic water projections, and that NMFS should consider its use in this context as well.

Rejecting the "Lower Basin Dodge": The Bureau has shown an appalling tendency in recent years to try to dodge its responsibility to control the dewatering impact of its own operations by pointing to lower basin problems, particularly in the Shasta and Scott rivers. While there is no doubt that these lower river tributaries are themselves over-appropriated, also suffer from damaged habitat, and also have problems with very poor water quality for what little water remains, it is also true that little or nothing that could be done in those tributaries would make up for lack of water and poor water quality in the river stretch between Iron Gate Dam and at least the inflows of these two rivers. Indeed, as shown in Figure 3 of the Draft BiOp (pg. 90), the contribution that the Iron Gate Dam releases provide as a percentage of the total river flow is typically between 60%-80% of the total flow during July-October as far downriver as Seiad Valley. The "fix" for water quality and quantity problems in this stretch must therefore be made in Project operations.

NMFS also correctly notes that improvements in flows and water quality in the lower river tributaries are long-term restoration efforts that, while important in the long run, are inherently uncertain, may not provide substantial benefits for many years, and cannot be used as an excuse for the Bureau not take responsibility for, and to mitigate, the enormous downriver impacts of its own operations.

A "Conservation Implementation Committee" to Oversee Implementation: Unfortunately, the Bureau of Reclamation has a poor record of compliance with prior Biological Opinions. For instance, the original prior Biological Opinion on the suckers in Upper Klamath Lake issued in 1992 required a number of measures, including screening the A-Canal major water diversion, which even yet, more than 10 years later, have not been completed. Likewise, the Bureau operated the Klamath Irrigation Project for the whole year of 2000 <u>without</u> consulting with the wildlife agencies and <u>without</u> a valid Biological Opinion, in direct violation of the federal Endangered Species Act, as noted by the US District Court in *Pacific Coast Federation of Fishermen's Associations vs. U.S. Bureau of Reclamation, et. al.*, 138 F.Supp.2d 1228 (N.D. Cal. April 3, 2001). That case resulted in an injunction against any further Bureau water deliveries until that consultation was completed for 2001.

Given the Bureau's poor track record, an independent multi-agency body formed to coordinate and oversee the implementation of the RPA measures as well as to craft additional specific actions in furtherance of the RPAs is more than warranted. The "Conservation Implementation Committee" described in the Draft BiOp at pgs. 61-63 is a very reasonable approach to resolving these problems, as well as a key element in any "adaptive management" approach. The basic concept of annual reviews and an independent process for making mid-course corrections as described in the Draft BiOp is a concept we strongly support. It cannot be left up to the Bureau alone.

Scientific Review Panel Concept: For the same reason, we support an independent scientific review process to provide "quality control" over the restoration and conservation measures included in the RPAs. Our only concern is that, as structured, this Scientific Review Panel would not in fact be independent, but would be selected by and under the control of the Bureau of Reclamation (see comments below).

Reopeners: Our organizations remain concerned that, with the scientific landscape changing so rapidly, it is not wise to lock in a Biological Opinion that cannot adequately and quickly respond to important new information. For instance, within the next year we will see the completion of both the Hardy Phase II Flow Study and the National Academy of Sciences' Klamath Committee Final Report, either of which could dramatically change the scientific foundations upon which this Biological Opinion is built. For that reason, many of our organizations wrote to NMFS and US Fish and Wildlife officials on 29 March 2002, urging that the BiOp be for a term of only one year.

We are thus gratified to see that NMFS has built in automatic reviews of these two important reports, and the potential to require re-initiation of consultation (Draft BiOp, pg. 1) based on these reviews. This is an important step in making sure this BiOp can be applied adaptively as new information is developed.

THINGS THAT NMFS GOT WRONG

The BiOp is Drive By Political Pressure Instead of Science: We are greatly troubled by the fact that NMFS structured the Draft BiOp largely around not what coho salmon need for survival and eventual recovery, but around whatever far more limited measures the Bureau decided it would accept. This is particularly clear in the description of the history of these consultations at page 55:

> "On April 23, 2002 Department of Interior and Reclamation leaders met with NMFS to discuss NMFS jeopardy finding and NMFS view that a consideration should be given to protecting mainstem Klamath River habitat. NMFS presented a proposal that recognized both the NRC view that scientific support for increased flows was weak and a conservative view that main stem habitat may be limiting, particularly for the smolt population which is dependent on suitable conditions in the main stem to complete its migration to the ocean. NMFS proposed flows (RPA flows) which were calculated based on use of the habitat suitability curves in the Hardy and Addley draft phase II report (2001) (see section 11.4.2 and table

9). Interior indicated that these RPA flows were not viable in its view, because they would result in deficiencies in delivers to project contractors of such a magnitude and frequency that the RPA flows could not be considered reasonably to allow Reclamation to operate in a manner consistent with the intended purpose of the project." (Draft BiOp pg. 55)

The Bureau has, in fact, recently advanced the legal theory in both the Draft Biological Assessment, and in its Final Biological Assessment, that it has no responsibility whatsoever to provide water for ESA-listed fish and wildlife needs nor for Tribal water rights, and that any requirement that they do so would be an unreasonable interference with the Project. This position has been repeatedly repudiated, however, by every court that has considered the matter.

Throughout the rest of the description of how the Biological Opinion was developed, it appears that the Bureau and Department of Interior officials used similar pressure tactics and unsupported and untested conclusory legal statements to batter NMFS down to: (1) requiring only a percentage (57%) of the total water necessary to meet minimum flow targets to actually be delivered by the Bureau; (2) a gradual phase-in of these flows over the next 10 years, in effect shifting the risk to the species as well as the lower river communities and Tribes; (3) relying instead for the additional 43% of the necessary water on speculative programs that would try to acquire water from parties over which the federal government has no authority in this process, i.e., states and private parties.

However, the history of how these measures makes it clear that they were arrived at not through any scientific process, but through a political process apparently intended to relieve the Bureau (and by implication the water districts and irrigators it services) from any immediate obligation to provide more water, and to relieve them of much of that obligation in the future by shifting that obligation (and the risk of failure) to others. These measures should therefore be considered arbitrary, with little or no basis in science. NMFS should return to its mandate to do what is required for the survival and recovery of these public resources, and base its RPAs solely on the science, not on what is pleasing to the Bureau.

Exonerating the Bureau of Responsibility, Shifting the Burden to the Resource: The end result of the combination of "back loading" and delegating the flow benefits of the BiOp to the last few years, plus acquiescing to the Bureau's demand that it be held responsible for only 57% of the total flows that must be obtained, is that very little actual water will accrue to instream flows for the salmon and lower river communities for several years, if ever. There are several serious problems with this proposal, including but not limited to:

(1) The Premise Of Proportional Responsibility Is Seriously Flawed: It is always the cumulative effect of many actions that cause extinction, but the Bureau of Reclamation's actions have had by far the major impact, and are the final "straw that broke the back" of the integrity of the Klamath Basin ecosystem, causing jeopardy. As a federal agency, the Bureau is obligated to

prevent jeopardy by its actions, not just 57% of jeopardy, leaving the rest of the recovery effort to unknown others.

Jeopardy is not divisible. There is no such thing as being 57% extinct, just as there is no such thing as being 57% pregnant. A species that becomes extinct is always 100% extinct. Taking 57% of the responsibility of recovery is like taking 57% of the responsibility for a pregnancy. As indicated above, this split was arrived at as part of a political deal, and has no basis in law or science. There is no provision in the ESA for a "partial jeopardy" or "fractional jeopardy" finding in the consultation process, there is either jeopardy or there is not. If 100% of the proposed Bureau flow regime would cause jeopardy, it logically follows that if the Bureau provides only 57% of that flow regime (the default for at least the first few years) this would also cause jeopardy.

In addition, the Ninth Circuit ruled in *Klamath Water Users Association v. Patterson*, 204 F.3d 1206 (9th Cir. 1999), *cert. denied*, 531 U.S. 812 (2000), that Reclamation is legally obligated to operate the Project "to meet the requirements of the ESA, requirements that override the water rights of the Irrigators." 204 F.3d at 1213. The court relied on the cardinal principle that "contractual arrangements can be altered by subsequent Congressional legislation," even when such legislation was passed after the contracts were made. Id. Finally, in *Kandra v. United States*, 145 F. Supp.2d 1192 (D. Oregon 2001), the federal district court rejected arguments that RPAs that benefit fish cannot be implemented because they are inconsistent with the primary irrigation mission of the Project. 145 F.Supp. at 1207. These legal authorities preclude Reclamation and NMFS from determining the acceptability of minimum flow RPAs on the basis of the magnitude of changes to project operations such flows might require. Congress intended the Endangered Species Act to "halt and reverse the trend toward species extinction, whatever the cost." *T.V.A. v. Hill*, 437 U.S. 182, 184 (1978) (Congress viewed the value of endangered species as "incalculable.")

The RPA concept that the Klamath Project can be made responsible for only a portion of the stream flows needed for coho salmon also lacks support in the text, legislative history or jurisprudence of the Endangered Species Act. As noted, the Act commands that each federal agency "insure" that its action do not jeopardize the survival of listed species. 16 U.S.C. ' 1536(a)(2). Agencies are directed to use "all methods and procedures which are necessary" to preserve endangered species. 16 U.S.C. ' 1532(2). These statutory dictates are not qualified by any principle of proportionate responsibility for avoiding jeopardy. If the authorized action affects the likelihood of survival, the agency must take whatever actions are necessary to insure that jeopardy is avoided, period. Because Congress in the ESA declared the survival of listed species the highest priority, the agency can be required to take actions inconsistent with its primary mission. *T.V.A. v. Hill*, 437 U.S. 182, 185 (1978). If applied nation-

wide, the proportionality principle espoused by the Draft would undermine the orderly and fair implementation of the ESA.

(2) **Where Is The Other 43% of Recovery Actually Going to Come From?** The Draft Biological Opinion is more than vague about where the other 43% of the minimum flows required to meet targets are supposed to come from, leaving it to a vaguely defined joint state-federal process to somehow come up with the rest, a process that may or may not be successful. Thus the burden of failure is placed squarely on the SPECIES when it should be on the agency whose actions have most contributed to these species' declines.

This is not to say that the Bureau cannot and should not seek help, under a "contribution" theory, in the form of water from other sources though willing seller water leases or purchases, or through development of well water, or through demand reduction programs within the Project, or through conservation measures, or any other efforts. However, the burden of developing those programs, and the risk of their failure, should be carried by the federal government that created the problem to begin with, not by the species itself.

There is ample precedent for such programs: water rights retirement programs have been successfully implemented in Idaho, in Eastern Washington, in the California Central Valley, and indeed within the Klamath Project itself in 2001, during which some 7% of the Project water users voluntarily retired their water rights for one year in return for cash payments of about $35/acre-foot, in a successful water conservation program during last year's near-record drought. There are many ways the Bureau could accomplish its goals.

However, there is also a substantial risk of non-performance inherent in the concept that the Bureau will somehow (through some vague mechanism) "find the water" and that 43% of the total water required to prevent jeopardy would come from others as yet unknown through a program that is as yet unformed. In reality, the Bureau and other federal agencies have no control over the actions of private landowners or state agencies who have been diverting the water, and simply cannot be assured of delivery. Given that uncertainty, it is the Bureau that should bear the burden of any failures, not the species itself.

(3) **57% is Arbitrary:** Even accepting the premise, for the sake of argument, of proportionality, the 57%-43% split was only arrived at by the simplistic process of counting total acres between Project and non-Project use. However, most of the non-Project farmers, who have always depended on independent (i.e., non-Project and thus non-subsidized) sources of water, generally have had to pay their actual costs of providing their water. In other words, among these farmers there are clear economic incentives to conserve. Thus these operations are most likely <u>far more water efficient</u> than federally subsidized water users on Project lands who pay extremely low as well as heavily subsidized water prices. As a result, Project lands, for instance, frequently grow water intensive (but low

value) crops such as alfalfa which their more conservation minded non-Project neighbors plant rarely. It is relative water use between Project and non-Project operations that would be the most appropriate measurement, not relative total acreage. The Project lands probably use in excess of 70% of all the water used for irrigation in the Upper Basin, even though they farm but 57% of the total acreage.

In summary on this issue, if the recommended flow targets are biologically sound and necessary to avoid jeopardy, then the Bureau should be required to meet these mimimum flow targets of Table 9 (Draft BiOp pg. 72) immediately, and not be allowed to shift that responsibility to unknown and unidentified future parties through as yet unformulated future plans. While we would always support programs for the Bureau to seek a more equitable distribution of this risk to others who might also be liable, or to meet its water obligations through market mechanism such as the "water bank," or to reduce demand within the Project itself, or through better conservation, the risk of failure should be on the agency, not on the species at risk.

Deferred Water Benefits May Simply Come Too Late: Any benefits from meeting the minimum flow targets (i.e., water actually required in the river) are "back loaded" until at least 2010, yet the risk of extinction is "front loaded" today and would be highest for the next few years. This year and for the next several there will be, under the Draft BiOp provisions, little additional water required above and beyond those flow standards proposed by the Bureau and already rejected by NMFS as causing jeopardy. Additionally, preliminary forecasts indicate that next water year (2002-2003) is likely to be dry because of El Nino impacts. Thus once again the risk has been shifted from the farmers who have taken and profited from all the water they have used, to the fish who have been left far too little and need more just to continue to exist.

There is, in other words, a substantial mismatch in the Draft BiOp between the risk to the fish and the measures intended to minimize or eliminate that risk. The remedy may simply come too late. Even with the most optimistic reading of the Draft BiOp, the next few years will clearly constitute a "bottleneck" that these ESA-listed fish must get through before they will reap the benefits of increased flows. In the meantime, additional damage would likely occur that would make ultimate recovery just that much more expensive and uncertain.

Non-Project Water Expected to Fill the Gap is Simply Too Speculative: As indicated above, and aside from the issue of whether or not the Bureau should be exonerated from any responsibility for providing 43% of the recommended target flows, the speculative nature of efforts to "find" this additional water is particularly troubling. The Bureau (and indeed the federal government) has no real legal authority or control over state water agencies, nor over the multitude of non-Project irrigators and water diverters both in the Upper and Lower Klamath Basin from whom this additional water is supposed to come.

To date neither the states, nor many of the surrounding private landowners, have shown much interest in providing any additional water to bail out the Project from the over-appropriation hole it has gotten itself into. These interests are in fact busily making things worse. For instance, in spite of the fact that the arid Klamath Basin's limited water resources are clearly grossly over-appropriated, neither Oregon nor California have as yet closed the Klamath Basin to further appropriations, and additional permits for wells and water diversions are still being issued by both, further exacerbating these water conflicts.

Likewise, neither state adequately monitors nor meters the many water diversions outside of Project lands, and there has historically been little or no state enforcement against the large number of illegal or excessive diversions which are known to exist. In fact, the State of Oregon has long taken the position that, since all the Upper Basin water rights in that state are in adjudication, it cannot legally enforce the rights as they currently exist. Since the water adjudication has gone on now for 25 years, with years more in sight, during all that time there has been little serious effort by the State of Oregon to curtail diversions throughout the Basin that are probably illegal or in excess of permitted amounts. Nor has California enforced its instream water rights laws in the Scott or Shasta River tributaries, in spite of the over-appropriation and illegal diversions that abound among those landowners.

Given this history and enforcement track record, the presumed water available from these state and private sources has to be labeled as speculative.

No Controls Over Daily Flow Spikes (Daily Ramping): One noticeable gap in the discussion of ramping rates is any specifics or controls over daily ramping rates, i.e., diurnal fluctuations of water levels largely due to daily changes in power generation demands that are met by "shaping" daily deliveries from hydropower operations. These sudden daily "spikes" can be quite large (see ATTACHMENT 1), as for instance for the year 1997. While it is true that the Bureau does not directly control the power dams owned by PacifiCorp, the issue is nonetheless an important one for fish, and if not dealt with in this BiOp should be dealt with in the upcoming Biological Opinion for the Klamath Hydropower Project with PacifiCorp.

No Curtailment of Out of Basin Water Transfers: There are a number of out-of-basin water transfers that routinely occur, none of which are mentioned in the BiOp. One RPA that is warranted is for the Bureau to put an end, to as great an extent as possible, to these out of basin transfers. Two major ones are: (1) large volumes of the Trinity River are diverted by the Bureau, and under Bureau authority, to the California Central Valley Project, where this water is used to heavily irrigate lands mostly in the Westlands Water District in one of the most highly subsidized, wasteful and least cost effective farming operations in the country; (2) some 30,000 acre-feet of water are transferred annually from the Upper Basin to the Rogue River Basin from the Lost Creek Reservoir, which actually sits in the Klamath Basin. It would seem that one obvious measure for retaining more overall water within the Klamath Basin would be to put an end to these out of basin transfers, and we suggest that as an additional RPA.

"Between Year Transition Group" Composition: The Draft BiOp also sets forth a process for establishing a "Between Year Transition Group" to develop flow regimes to make the transition from a below average or dry water year into the next year:

> "As part of the RPA, in below average and dry water years, Reclamation will convene a group of representatives of Reclamation, NMFS, USFWS, BIA, CDFG, the Yurok Tribe, the Karuk Tribe, the Hoopa Valley Tribe, and the farming community by mid-September to discuss current hydrologic, meteorologic, and biological conditions and seek consensus in IGD flow changes for the October through January time period." (Draft BiOp, pg. 71)

The only non-governmental representative on this group is from the "farming community." Missing entirely is ANY representation from one of the interest groups most dramatically affected by lower river flows, the commercial fishing industry. Representation from the lower river community is every bit as necessary, and every bit as warranted, as from farmers. Description of this working group should thus include following the language "….. the farming community ***and the lower river or coastal commercial fishing community*** by mid-September…." (new language in bold italics).

Fishermen have at least as much right to be included in determining the fate of the river from which they make their living as do farmers. Otherwise, if there is deliberately to be no representative of the lower river commercial economy included in the process, there should likewise be no inclusion of "farming community" representatives in such an important process, and the group should then be entirely inter-governmental.

Water Leases Provide no Certainty: At several places in the BiOp there is a mention of water leasing as a mechanism for acquiring water to support downriver flow targets. However, such leasing is generally only year to year, and would thus never provide the long-term stability of an outright purchase of water rights and the rededication of those rights as instream flows for fish and wildlife. Wherever there is a mention of "leasing" of water rights, NMFS should use the language "leasing or purchase" of water rights to include both possibilities. If the object is to have long-term stability for the necessary downriver flows, permanent water purchases should be the option of choice as opposed to temporary or short-term leasing.

Not Enough Scientific Independence from BOR: Although the formation of a Science Review Panel is clearly warranted, that panel has to be entirely independent of the Bureau of Reclamation, not appointed (and paid) by it. The Bureau has a clear conflict of interest in simultaneously proposing research programs, paying for them and hand selecting their own science review panel.

Instead the Science Review Panel should be selected and appointed by the inter-governmental Conservation Implementation Committee. This would assure that the Panel is broadly responsible to, and receives input directly from, the multi-agency restoration effort oversight group, not just accountable to the much narrower interests of

Reclamation, whose primary job has always been seen by the Bureau as to deliver water to contractors for irrigation.

To be effective, this Science Review Panel must be composed of credible scientists who are truly independent. Clear conflict of interest prohibitions also will have to be developed to prevent any erosion of this independence. The model that might be most effective to emulate is the Independent Multi-disciplinary Science Team (IMST) organized pursuant to statue to oversee the Oregon Plan for Salmon and Steelhead.

No Funding Mechanisms For Acquiring More Water: There is much talk in the Draft BiOp RPAs of mechanisms for purchasing more water to devote to meeting the flow targets. However, nowhere is there any specific mechanism for how to fund those purchases. A clear purchase funding mechanism needs to be specified, as for instance making the funding of such a program an obligation of the Bureau of Reclamation in the RPAs.

In Summary – Preferred Alternatives

The risk to coho salmon of extinction needs to be addressed immediately, this year, and not some ten years down the road. The preferred alternative should be to require the Bureau to meet the flow targets established in Table 9 (pg. 72) immediately or as soon as possible, and certainly not later than within one year. Several RPAs are, frankly, challengable in court as too speculative or with benefits (if any) that are simply too far in the future to count as restoration today. Rather than challenge these RPAs in court, it would be our preference that NMFS recognize this problem, and correct the RPAs in the final document to more appropriately "front load" the water flow deliveries to the target levels on a time scale much more in step with the front loading of the risk.

The risk of failure of the various programs proposed to acquire water through voluntary leases is unfortunately substantial. These risks simply cannot be passed on to the species facing potential extinction by exonerating the Bureau of its legal obligations. Those risks should be bourn directly by the Bureau of Reclamation and the federal government, which are required to protect and restore these public resources. Above and beyond that, however, whatever mechanisms the Bureau wants to develop to "spread the risk," is all to the good and have our support, so long as they are not used as a pretext or a pre-requisite to meeting targeted minimum flows which MUST be met simply to avoid jeopardy.

The more immediate, the more certain, and the more closely matched the RPA measures are to the current extinction crisis, and the faster those measures will reduce the risk of extinction, the more likely they are to withstand court scrutiny and the more likely they will lead to recovery quickly with the least amount of cost and disruption.

Sincerely,

Glen H. Spain, for PCFFA, IFR and other groups listed above

ATTACHMENT 1 TO COMMENTS BY PCFFA, ET. AL.

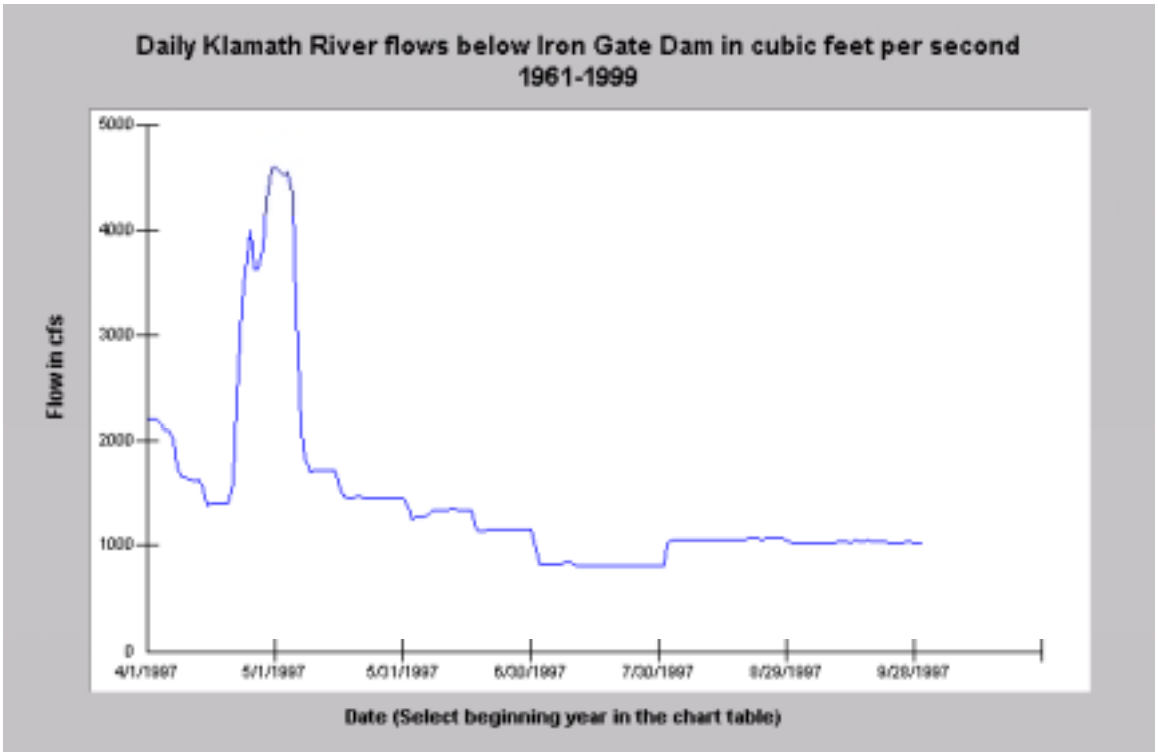

Chart showing daily flow fluctuations below Iron Gate Dam for the irrigation season of 1997, an excerpt from a database that includes data from 1961-1999. Data from the KRIS Klamath/Trinity Database Version 2.0 (April 2001), U.S. Fish and Wildlife Service.