Testimony of Mike Kelly
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to The House Natural Resources Committee

Oversight hearing on "Crisis of Confidence: The Political Influence of the Bush Administration on Agency Science and Decision-Making.

Tuesday, July 31, 2007

My name is Mike Kelly. I am representing myself at my own expense in this hearing. I was a fishery biologist with the U.S. Fish and Wildlife Service (USFWS) from 1995 to 2000 and with NOAA Fisheries (NMFS) from 2000 to 2004. I am currently a private consultant specializing in the monitoring of construction projects to ensure permit compliance and avoidance of adverse impacts to aquatic resources. While with NMFS I worked in the Protected Resources Division as an Endangered Species Act (ESA) section 7 biologist. My duties included analyzing Federal projects under section 7 of the ESA to ensure protection of ESA-listed salmon species.

In this testimony, I will:

1) describe my role as the "technical lead" biologist during development of the 2002 NMFS Biological Opinion (BiOp) for the Bureau of Reclamation's 10-year Klamath Operations Plan, which was found to violate the ESA;

2) discuss problems with the National Research Council's (NRC) interim report, which reviewed the 2001NMFS and USFWS BiOps, and demonstrate that NRC itself admitted in their final report that it did not apply the standard that the law required;

3) discuss possible ways to avoid future abuse of ESA decision making processes, and to strengthen the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Management and Conservation Act.

Development of the 2002 Biological Opinion for the 10-year Klamath Project Operations plan

The US District Court for the Northern District of California (Case #C-02-2006) found the NMFS 2002 BiOp for the 10-year Klamath Project Operations Plan to be illegal on three separate points. In this part of my testimony I hope to clearly demonstrate to the Committee that NMFS' final decision was no accident, and that someone at a higher level than the regional NMFS office was responsible for forcing the illegal action.

To make it more obvious to the Committee where this long story is headed, I provide these excerpts from the final court decision, which address one of the three illegal aspects of the BiOp:

> *(w)hile the [NMFS] can draw conclusions based on less than conclusive scientific evidence, it cannot base its conclusions on no evidence. An agency does not avoid the likelihood of jeopardy to a listed species when it disregards the life cycle of the species in crafting the measures designed to protect it. Nor can the agency provide only partial protection for a species for several generations without any analysis of how doing so will affect the species.*
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> *Phase III clearly presents 'specific quantitative target flows' that the NMFS concluded were necessary to avoid jeopardy. The federal defendants ask us to disregard their quantitative conclusions in favor of their assertions that the first eight years of the RPA will avoid jeopardy.*
>
> *We conclude that the RPA is arbitrary and capricious because it fails to analyze the effects of eight of ten years of the proposed action on the SONCC coho, a species that has a three-year life cycle.*

In the winter of 2001 NMFS selected me to be the "technical lead" fisheries biologist for the upcoming (2002) ESA section 7 consultation for Klamath Project Operations. The previous year's (2001) BiOp found "jeopardy" to the Southern Oregon/Northern California Coasts (SONCC) coho salmon, which resulted in dramatically reduced irrigation deliveries to farms in the Klamath Project, and much controversy. So we began to prepare early for an anticipated similar proposal from Reclamation.

My immediate supervisor advised me that she had been informed that Vice President Cheney had been briefed on our consultation, apparently with the intent of impressing upon me the importance of this consultation. That is the only time that the Vice President was mentioned to me during the consultation process. I was aware that President Bush had declared that he would do everything he could to get the water for the farms. And I was keenly aware of the controversy surrounding the 2001 decision.

However, my duty – which was to determine whether the proposed action would jeopardize the continued existence of SONCC coho salmon, and what would be required to avoid jeopardy if that were the outcome of the analysis – was all that should and did matter to me.

I realized that political pressure might be applied to my superiors, but I naively believed that I was shielded from such pressure. I thought that my analysis would, as is always required, be based on a logical analysis of the best available science, and have a logical outcome. I viewed it as a somewhat complicated case of 1+1=2. Regardless of what I found in my analysis, it would have to make sense and satisfy the legal requirements of the use of science under the ESA, and certainly no political pressure could magically change that. I never suspected that I would be asked to support the conclusion that 1+1=3, but I was.

I developed a draft BiOp, in which I used every approach I could think of to analyze the effects to coho salmon, and in each case the result was that the proposed action was inadequate to avoid jeopardy to coho.

I then developed an alternative 10-year plan that I thought would be adequate to avoid jeopardy, but still allow the Klamath Project to operate, as is required of any "Reasonable and Prudent Alternative."

My draft BiOp was then reviewed by the Department of Justice, according to my supervisor, and deemed "indefensible." I was never told what was indefensible about it, and I think Justice was mistaken in their conclusion. My draft was certainly more defensible than the final BiOp. I suspect that it was called indefensible simply because it was not perceived as being consistent with the interim National Research Council (NRC) report on the 2001 BiOp. (More about the NRC report later.) Therefore, I would suggest that the GAO look into Justice's role, if they did actually review my draft.

Jim Lecky, the Assistant Southwest Region Administrator at the time, then came to our field office in Arcata, California to help us finish a "defensible" BiOp. Mr. Lecky developed a different jeopardy analysis, which I thought was much weaker than mine, but was consistent with the NRC report. I continued to build a case for the alternative to avoid jeopardy.

But before Mr. Lecky came to Arcata, and before my original draft BiOp had been reviewed by Justice, he sent a letter to Reclamation concluding that the Klamath Project "was not likely to adversely affect" coho salmon if they operated the project as proposed while we continued to develop the final BiOp. (Reclamation had delivered their proposal to us much too late to finish our BiOp before the start of the 2002 irrigation season.)

This is when I began to worry. Stating that Reclamation's proposed April and May flows would not be likely to adversely affect coho, for the same action that we had already concluded would jeopardize SONCC coho in 2001 and in our working draft, was a case of 1+1=3 logic. In fact, my supervisor told me that Lecky had written the letter without our input in order to "distance" us from his action. Not only was this action bizarre, but it may have been a violation of section 7(d) of the ESA, which prohibits the irretrievable commitment of resources that may otherwise be required to protect species on completion of the consultation.

The decision to allow the proposed April and May flows is the federal action that made it possible for Secretaries Norton and Venneman, and U.S. Senator Gordon Smith to pose for cameras while opening the Klamath Headgates on April 1 to ceremoniously begin the irrigation season. Obviously, there was a lot of incentive for the decision in order to show support for the Administration's political base.

As we continued to develop the BiOp, there was at least one additional "1+1=3 moment" proposed by Lecky. I don't recall the exact details, but it had to do with how we treated outmigrating juvenile coho in our analysis. I warned him that I would refuse to continue working on this assignment if we did as he advised. My supervisor backed my position and Mr. Lecky gave in to our logic.

Eventually we finished our draft BiOp and delivered it to Reclamation. The final alternative flow schedule was less cautious in terms of protecting coho than my original draft, but I thought it still marginally would avoid jeopardy. However, Reclamation promptly advised us that our

alternative was unacceptable to them, which is their prerogative. Reclamation proposed that we meet to work out a solution.

We met for two days in April at Reclamation's Shasta Lake office. When Mr. Lecky, my supervisor, and I arrived, Reclamation already had their alternative plan posted on wall charts. They clearly had no intention to negotiate. They were only willing to accept 57% of the responsibility for any water that we decided was needed to avoid jeopardy to coho, with additional water to come from unidentified sources. This was based on the completely arbitrary calculation that they only operated 57% of the irrigated land in the upper basin. This proposal was quite "innovative" so we obviously needed some time to consider its implications under the ESA. (Of course, NMFS ultimately accepted this proposal, which was later ruled to be in violation of the ESA due to its illegal partitioning of jeopardy-avoidance responsibility, which is entirely the responsibility of the federal action agency.)

We considered their proposal during the first day, but obviously could not accept it for further analysis until we fully understood it. On the morning of the second day, Mr. Lecky was on his cell phone when my supervisor and I met him in the hotel lobby. After the call, Lecky informed us that he had been told that we needed to stop "stonewalling" Reclamation's proposal. He seemed somewhat un-nerved by the call. He did not say who he had spoken to or where the order to stop stonewalling had originated.

During the second day, Reclamation's Regional Director, Kirk Rodgers, and Mr. Lecky left the room for approximately 45 minutes. I assume they made a call to someone up the chain of command. When they returned, Mr. Rodgers asked Mr. Lecky to make the announcement that NMFS would accept Reclamation's alternative.

On the way home I once again warned my supervisor that if we were to accept Reclamation's alternative without a complete analysis, I would be forced to refuse to continue working on the project.

A day or two later, my supervisor and I received a call from Lecky stating that we would accept Reclamation's alternative with no further analysis. So I requested to be dismissed from the project team because I would not participate in an illegal action. I never took insubordination lightly, and this was by far the most difficult moment of my professional life. But I was being asked to provide scientific support for a "1+1=3" conclusion, which, of course, would be a clear violation of my professional ethics and official federal ethics rules, as well as a possible violation of the law.

I also had hoped that my refusal to participate would apply some "back pressure" up the chain of command. I expected that it would be untenable to develop a BiOp without a staff biologist. But my insubordination was never entered into the record, so no one would have known that I had protested if I hadn't filed for whistleblower protection. Also, I was never reprimanded, and, in fact, I received an award for my work on the BiOp. I think that they didn't reprimand me and gave the award because NMFS knew that I was right all along.

It was obvious to me that someone up the chain of command was applying a tremendous amount of pressure on Mr. Lecky. There's simply no other explanation for anyone in NMFS developing or accepting such a completely bogus and illegal BiOp.

NMFS sets a very high bar for our BiOps. Our BiOps go through a very rigorous review process, and they are routinely returned to biologists if there are any faults in the "logic train," any misinterpretations of the ESA or agency policy, or even minor problems with formatting, etc. Again, I would like to stress that NMFS would never accidentally produce such a faulty BiOp, especially when the lead biologist clearly points out the faults during its development. Additionally, a report by the Commerce Inspector General (IG) into Mr. Lecky's alteration of biological conclusions of the Central Valley Project/OCAP BiOp, found that Mr. Lecky had bypassed the normal checks used in development of BiOps. These checks include a detailed review by the regional section 7 coordinator. The section 7 coordinator revealed that Mr. Lecky had also bypassed these checks during the Klamath consultation, and that these two instances were the only two of which she was aware during her tenure.

So my superiors finished the BiOp without me. I don't know how to stress any further just how bad this BiOp was. Clearly it didn't matter if 1+1=3. They had obviously been ordered to push the thing through anyway.

I began to investigate whether and how I should file for whistleblower protection and disclose what I had observed. I certainly didn't want to cause unproductive trouble for my supervisor – I just wanted to find a way to legally get NMFS to go back and re-do the consultation. And I felt secure that I had made the correct ethical decision in refusing to support the BiOp, so filing a whistleblower disclosure was not ethically required and was probably premature.

Then a couple of weeks after issuance of the BiOp, we received a letter from Kirk Rodgers at Reclamation stating that NMFS had mischaracterized their 57% alternative and, therefore, Reclamation was rejecting the BiOp. I wrongly assumed that this letter spelled the end of the faulty BiOp, and that soon we would get another chance to get it right. This certainly would have been the case in any other consultation. So I gave up on the idea of filing a whistleblower disclosure.

Then came the fish kill. The USFWS officially estimated that approximately 64,000 adult salmon died in the lower Klamath River with low river flows being a causative factor. The vast majority of the dead fish were non-ESA listed Chinook salmon and steelhead trout, but at least several dozen ESA-listed wild coho salmon were also killed. Several dozen adult fish may seem small compared to the overall magnitude of the kill, but it is a large number of a rare species. While the death of several dozen fish in a single incident may not doom the SONCC coho to extinction, it may have been a significant portion of an early-returning sub-population from a particular tributary, which could have significant impacts to the overall population in the long term. Also, this was only the first year of the 10-year plan, so it would be possible to repeat this incident several times in short order, which could then have a cumulative effect that would be highly significant.

Whether the fish kill was clearly a direct result of the BiOp should not have mattered. A precautionary approach should have caused NMFS to conclude that there was a significant likelihood that there had been unauthorized "lethal take" of coho due to the project, and should have caused us to call for a re-consultation. In my experience, this would usually have been the case if even a single juvenile coho had been unexpectedly killed under any other BiOp.

So I once again assumed that we would get another chance to do this consultation correctly and provide adequate protection for the fish. However, Lecky told the audience at a conference in October 2002 that the BiOp was "working" and that NMFS expected to "get a couple more years" out of it. That's when I decided that I had no choice but to disclose what I had observed during the consultation.

While I was certain that the BiOp was illegal for several reasons, I focused my disclosure on the lack of any analysis of the first eight years of Reclamation's alternative. The body of the BiOp clearly demonstrated the need for river flows that were protective of coho salmon, yet the alternative did not provide the flows for the first eight years of the 10-year plan.

I filed my whistleblower disclosure using the normal Office of Special Council (OSC) process. The OSC punted my case to the courts, stating they could not be "arbiters of science." This conclusion was mistaken, however, since NMFS was actually in violation of procedure as we had argued to the OSC.

Ultimately, the courts found the BiOp to be "arbitrary and capricious" for at least three separate reasons. These reasons included the exact reason that I had originally given for refusing to help finish the BiOp and that I had detailed in my whistleblower disclosure. The other reasons, detailed in the US District Court for the Northern District of California (Case #C-02-2006) include the 57% jeopardy avoidance responsibility discussed above, and the improper reliance on actions that are not reasonably likely to occur to avoid jeopardy.

If the Committee intends to investigate political manipulation of the process used to develop the 2002 BiOp, I suggest asking the following questions.

I would begin by questioning Jim Lecky about communications he had with his superiors. Specifically, I would ask him who directed him, or otherwise suggested to him, that he provide the "not likely to adversely affect" letter regarding Reclamation's April and May 2002 flows. I would ask who called him to complain that we were "stonewalling" Reclamation's alternative at our April meeting. I would ask who he and Kirk Rodgers spoke to, or what they discussed, just before Mr. Lecky agreed to accept Reclamation's alternative. I would ask whether Mr. Lecky informed anyone that his lead biologist had refused to continue working on the BiOp, and, if so, what their response was and why it wasn't entered into the record. And I would then ask any superiors that he identifies who up the chain of command they had communicated with on these matters.

Additionally, NMFS Director Bill Hogarth made the following statement regarding development of the 2002 BiOp to the NR Committee on March 13, 2002, in his testimony about the NRC report:

I can assure the Committee that we will work hard to get the work completed as soon as possible, and I will be monitoring the progress of our efforts very closely.

While Mr. Hogarth may have "monitored the progress of our efforts very closely," he never contacted me for my thoughts, even after I had refused to continue my participation. Therefore, I would ask Mr. Hogarth a similar set of questions.

Additionally, because there is strong evidence that ESA-listed salmon were killed due to a blatantly illegal decision, there should be an investigation by the appropriate authorities, including those outside the agencies, such as the Public Integrity Section of the Justice Department, to determine whether any civil or criminal violations of any law may have occurred, for example, of the take provisions of the ESA.

Typically, NMFS Law Enforcement would investigate illegal take of listed species, so I've never been sure why they have not pursued this case when presented with such compelling evidence of illegal action. Certainly, the magnitude of the taking and strength of the evidence (court rulings as well as scientific studies of the mechanism of the taking) should make this an obvious case for enforcement. If this had been caused by a private individual, rather than the agency charged with protecting the fish, NMFS Law Enforcement would have pursued, and likely won, this case. Agency personnel or others who did not have reason to believe that the BiOp was engineered to specifications weaker than the law requires should not be liable of course, but those who did have reason to know should be held to account like any other person who commits an un-permitted taking or other violation of law.

Problems with the National Research Council review of the 2001 BiOps

The Departments of Commerce and Interior requested that the NRC independently review the scientific and technical validity of the government's 2001 biological opinions for the Klamath Project. The recent Washington Post story questions the Bush Administration's use of the NRC to review the BiOps.

As described above, we were required by someone higher in the Administration, not the law, to ensure that our jeopardy analysis was consistent with the findings of the interim NRC report (*Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin: Interim Report*), which considerably weakened our ability to use our ESA-required professional judgment based on unpublished literature, non-peer reviewed literature, personal communication with professionals in the field, our own experiences in the field, and relevant information from studies conducted in other locations.

Here is an excerpt from the February 2002 interim NRC report's executive summary:

On the basis of its interim study, the committee concludes that there is no substantial scientific foundation at this time for changing the operation of the Klamath Project to maintain higher water levels in Upper Klamath Lake for the endangered sucker

populations or higher minimum flows in the Klamath River main stem for the threatened coho population.

This conclusion begs two questions. Firstly, how does the NRC define "substantial scientific foundation" (that is, what burden of proof) and, secondly, is their definition consistent with the required standard of the ESA? The NRC did not choose to address these important questions until their final report 18 months later.

A parallel report issued by the State of Oregon sheds some light on these questions. *The Independent Multidisciplinary Science Team Review of the USFWS and NMFS 2001 Biological Opinions* (IMST Report) reached the opposite conclusion of the NRC Report.

The IMST Report concludes:

IMST agrees with NMFS that increased instream flows in the Klamath River are defensible.

Additionally, the IMST report cites a report jointly developed by the University of California Davis and Oregon State University that also supports NMFS' conclusions, stating:

OSU-UC Davis report says increased flows in mainstem Klamath River are justified based on presence of coho salmon.

So, why does the NRC conclusion differ from the IMST, OSU-UC Davis, and the NMFS/USFWS conclusions? Because they used an inappropriate burden of proof.

The IMST Report directly addresses this point:

Thc NRC (2002) focused its conclusions on relationships for which there is clear evidence from measurements in Upper Klamath Lake and did not give strong weight to evidence from the larger scientific literature and broader scientific concepts in its findings (D. Policansky, pers. comm.). However, the IMST considers information on habitat use, studies of other lake systems and fish Communities, as well as empirical evidence from Upper Klamath Lake to be relevant scientific information that resource management agencies are required to use in making resource management decisions.

We recognize the increased certainty provided by basing conclusions only on direct evidence for a specific location, such as the National Research Council applied in its evaluation of management actions for Upper Klamath Lake. At first glance, the more limited and conservative perspective of the NRC committee would seem to lower the chances of being wrong. However, limiting the scientific basis for the determination of appropriate management actions increases the potential for placing a resource at risk simply because the available observations are inadequate and the larger body of valid scientific information from other systems has been ignored. If management actions for all natural resources were limited only to the specific system that was being managed, many

> *lakes and streams would have no management because empirical evidence for those individual lakes or streams is nonexistent.*

In its final report issued in the fall of 2004 (*Endangered and Threatened Fishes in the Klamath River Basin: Causes of Decline and Strategies for Recovery*), the NRC Committee finally acknowledges that they used a different burden of proof than the standard required by the ESA. From chapter 9 of the NRC final report:

> *The NRC committee's charge to assess "whether the [agencies'] biological opinions are consistent with the available scientific information" requires the committee to adopt a burden of proof that would apply in the scientific community rather than the legal burden of proof that applies under the ESA.*

Therefore, the NRC used an inappropriate standard for evaluating the BiOps. They used an entirely different standard to evaluate the BiOps than the standard that was required to develop the BiOps. This fact renders the interim NRC Report irrelevant in judging the appropriateness of the BiOps' conclusions; however, that is what the Bush administration (predictably) used the report for.

Why did the NRC chose this inappropriate standard without acknowledging it? Certainly, at least some of the NRC committee members knew that the ESA requires a completely different burden of proof. And they should have known that the Bush Administration would use their interim conclusions in development of the 2002 BiOps for the Klamath Project. If any members knew that the standard was inappropriate, did they state it to the rest of the NRC committee members? If the stated it, why did it not appear in the interim report?

I can only conclude that Bush Administration officials knew that the NRC would use an academic burden of proof, rather than the ESA standard, which would necessarily not support the BiOps' conclusions. Simply stated, the Bush Administration asked the NRC the wrong question. And in my opinion, officials in Interior and Commerce, as well as certain members of the NRC Committee, would have known that it was the wrong question to ask. I am convinced that the interim NRC report was engineered to give the Bush administration its desired answer. As one biologist familiar with the situation put it, "The Bush Administration played the NRC like a fiddle."

I would recommend that this Committee question the Administration officials involved in requesting the NRC review what they knew regarding the burden of proof to be used by the NRC versus the legal standard of the ESA. I would also ask the NRC committee members with background in ESA law (e.g., Dr. J.B. Ruhl) why the NRC did not choose the appropriate burden of proof. I would also question Dr. William Lewis, the NRC committee chair, about his involvement in developing the review in cooperation with administration officials.

I have also provided as an attachment an analysis of the NRC report that was developed by the biologist who wrote the 2001 BiOp. I had included this analysis in my original draft of the 2002 BiOp in order to help demonstrate why the NRC report provided little relevant information. Mr.

Lecky removed this section from the draft and final BiOps, and it was not entered into the administrative record until the courts ordered it to be.

I would like to add that the NRC's final report includes many excellent recommendations and related information that should be used in efforts to restore the Klamath River.

IDEAS FOR AVOIDING FUTURE ABUSE IN ESA DECISION MAKING

I have had many discussions over the years with colleagues and former colleagues about ways that ESA decision making, and specifically the section 7 process, could be better implemented to avoid abuse by administrators. These ideas have come from biologists with considerable experience in ESA decision making and analyses. Two relatively simple remedies are repeatedly cited.

Currently, only the final BiOps signed by an administrator are routinely entered into the administrative record. This practice makes it relatively easy for administrators to alter the conclusions of biologists without leaving a trace. Allowing the lead biologist(s) to co-sign the final BiOp as acknowledgement of support for the conclusions/reasoning could greatly decrease the ability of administrators to alter conclusions for non-scientific reasons. Alternatively, a "biologist's draft" BiOp could be entered into the record to allow comparisons with the final version, and administrators would be required to explain any changes they made.

A second/additional remedy could be to have the lead agency attorney for the consultation sign the final BiOp as an indication of legal approval. In my experience, and in the experiences of my colleagues, agency attorneys have always provided excellent guidance during our development of BiOps. Guidance supplied to biologists and administrators is protected by attorney/client privilege, so the guidance does not appear in the record. I suspect that legal guidance is often ignored by administrators when the guidance does not support predetermined outcomes. I also suspect that this is the reason that administrations lose so many ESA law suits.

STRENGTHENING OF THE ESSENTIAL FISH HABITAT PROVISIONS OF THE MAGNUSON-STEVENS FISHERY MANAGEMENT AND CONSERVATION ACT

Whenever NMFS does an ESA section 7 consultation, it conducts a concurrent Essential Fish Habitat (EFH) consultation for affected federally-managed species. The result of these consultations is a set of recommendations intended to protect the habitat of these species. Some of these species are the same as the ESA-listed species, and others are not ESA-listed. In the case of the Klamath Project, the affected EFH species were the ESA-listed coho salmon and the non-listed Chinook salmon.

During the 2002 Klamath Project consultation, when I asked about doing the EFH consultation, I was told that we would not be doing one. Our EFH coordinator in the Regional Office must have realized this and produced a generic EFH consultation for us. I edited this generic consultation to include specifics for Klamath coho salmon, which is my specialty species, and

developed at least a dozen recommendations to protect coho habitat. I then informed my superiors that one of the office biologists with Klamath Chinook expertise should review the EFH document and make recommendations for that species.

I don't know whether another biologist analyzed the effects to Chinook salmon, but the final EFH document did not include specific recommendations meant to protect Chinook salmon habitat, and it did not include any of the additional recommendations that I had developed for coho. The single EFH recommendation was simply to implement the alternative in the BiOp.

The EFH recommendations should have recognized that while Chinook and coho have very similar habitat requirements, the Klamath fall Chinook up-river migration run typically peaks a month or more earlier than the coho migration. A legitimate EFH analysis would have recognized this fact and would have recommended higher flows in September. Higher flows in September could have averted the fish kill.

The reason that NMFS administrators are "not willing to fall on their swords for EFH" (a quote to me from my supervisor) is that the EFH provisions only require making recommendations to action agencies. Agencies are then free to ignore these recommendations. As one biologist I know was fond of saying, "EFH is a gummy bear – no teeth, no claws."

I recommend that Magnuson-Stevens Fishery Management and Conservation Act be strengthened to provide EFH requirements, not just recommendations. Such a measure would make NMFS take EFH seriously, and could help avert future fish kills and preserve commercial fisheries.

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In closing, I would like to mention that much progress has recently been made by parties in the upper and lower Klamath Basins toward restoration of the Klamath River. While I think it is very important to investigate what happened during development of the 2002 NMFS BiOp in order to prevent future abuses of the ESA, I sincerely hope that any investigation does not interfere with the encouraging progress in the Klamath Basin.

8.1 National Academy of Sciences Report

Due to the controversy surrounding the basis for Klamath Project water allocation decisions in 2001, the Department of the Interior initiated a review of the situation by the National Academy of Science. Accordingly, the National Research Council formed the Committee on Endangered and Threatened Fishes in the Klamath River Basin (Committee), made up of scientists and other experts, to develop both a narrowly-focused interim report on the 2001 situation and a broader final report about the biological requirements of listed fish in the Klamath Basin.

The prepublication version of the Interim Report from the Committee, entitled "Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin" was released to the public in February 2002 (Interim NRC Report, National Academy Press 2002). Although the substance of the Interim NRC Report is "final," a final interim report will reportedly be available in April 2002. The "Statement of Task" (Appendix to the Interim NRC Report) included the following language regarding the Interim NRC Report:

> The interim report will focus on the February 2001 biological assessments of the Bureau of Reclamation and the April 2001 biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service regarding the effects of operations of the Bureau of Reclamation's Klamath Project on listed species.
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> The committee will provide a preliminary assessment of the scientific information used by the [USBR], [USFWS], and the [NMFS], as cited in those documents, and will consider to what degree the analysis of effects in the biological opinions of the [USFWS] and [NMFS] is consistent with that scientific information.
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> The committee will identify any relevant scientific information it is aware of that has become available since the [FWS] and [NMFS] prepared the biological opinions. The committee will also consider any other relevant scientific information of which it is aware.

NMFS is grateful to all members of the Committee for volunteering to undertake an expedited review of 2001 proposed and implemented Project operations, and looks forward to the final report that will provide additional valuable information. By definition, the Committee's interim report task was different from NMFS' Endangered Species Act section 7 responsibilities (i.e., ESA section 7 consultation consistent with the implementation regulations [50 CFR ' 402]). Although the context is different, additional data, analyses, and current conclusions always move the understanding of the Klamath River forward.

The conclusions of the Interim NRC Report with regard to coho salmon seem to be: (1) there is a paucity of data about coho salmon in the Klamath River Basin, but that population levels are unknown but probably low; (2) operation of the Klamath Project consistent with Reclamation's January 22, 2001, biological assessment may not be

scientifically supported; (3) substantial improvements in the amount of coho salmon habitat in the mainstem Klamath River cannot currently be attained in dry years, relative to river flows in the last decade; (4) factors limiting Klamath River coho salmon production are not related to conditions under the Project's control, at least during dry years; (5) current hatchery practices are flawed; (6) there is no substantial scientific foundation for changing the operation of the Project to maintain higher Klamath River mainstem flows for the threatened coho salmon (e.g., those flows recommended in the NMFS April 6, 2001, biological opinion RPA); (7) there is no substantial scientific evidence supporting changes in Project operations, nor the resulting IGD flows, relative to the past 10 years; (8) avoiding coho salmon stranding due to downward ramping rates at IGD seems reasonable and prudent; and, (9) that the Committee's conclusions are subject to modification in the future if scientific evidence becomes available to show that modifications of flows would promote the welfare of Klamath River coho salmon.

Regarding the availability of population data, the Interim NRC Report acknowledged that "[s]tocks of native coho salmon have declined greatly in the Klamath River Basin over the past several decades" and that "...standard methods for observing and counting spawning [coho salmon] are not easily applied, and the size of the spawning population is unknown." These conclusions are consistent with the NMFS 2001 biological opinion addressing Klamath Project operations, and this biological opinion.

NMFS agrees that the amount of mainstem Klamath River coho salmon spawning is probably not currently limiting coho salmon population recovery. But the extent of mainstem spawning prior to pre-dam and water development activities is unknown, as is the extent of mainstem spawning in the future that may support recovery of listed coho salmon.

Preliminary coho salmon fry habitat modeling, conducted according to commonly accepted methods, produced results suggesting that within the available range of flow magnitudes, suitable fry habitat was expected to increase with increasing flow. Depending on the method of calculation, the estimated mainstem Klamath River coho salmon fry habitat available under the NMFS 2001 biological opinion RPA is about 10 to 200% higher than that available under Reclamation's proposed Project operations as described in their January 22, 2001, biological assessment (see related information provided in the April 6, 2001, NMFS biological opinion). This also appears to be the case for chinook salmon fry. The Committee apparently has limited confidence in the estimates of the amount of suitable habitat available under various flow magnitudes, noting that such estimates in their final form require "...extensive field measurements that are not yet available." The draft Phase II flow study report (Hardy and Addley 2001) includes extensive descriptions of the various methods (including field measurements) used to develop the currently available estimates of fish habitat in the Klamath River for the Committee's continued consideration.

The Interim NRC Report also indicates that coho salmon smolts require adequate habitat, but does not provide any relevant conclusions. Available information, apparently without exception, indicates that smolt survival is expected to increase with

mainstem flow magnitudes in the spring. As these fish have survived sometimes difficult freshwater habitat conditions, and in consideration of the populations apparent status (and associated uncertainty), it seems prudent that management of the Klamath River mainstem should provide for expected increases in smolt survival as these fish will contribute to the adult population.

Although coho salmon have been found in the Klamath River when water temperatures have been elevated (apparently in contrast to investigations in the Mattole River), the NMFS shares the Committee's deep concern about elevated water temperatures in the mainstem Klamath River during the summer and that dramatic improvements cannot be made simply by releasing more IGD water. However, modeling results and temperature data indicate that modest temperature improvements (both daily mean and maximum) are expected under some IGD release scenarios. Further, decreases in mainstem temperatures that can probably be realized are similar to the difference between some tributary temperatures and those in the mainstem (e.g., see McIntosh and Li 1998), so that consistent with the expectation that tributary confluence areas may provide survival benefits for coho salmon fry and juveniles in the mainstem, decreases in mainstem temperatures may also provide such benefits.

The Interim NRC Report apparently concludes that thermal refuge areas associated with tributary confluences in the mainstem Klamath River may be important for coho salmon, and that "[a]ddition of substantial amounts of warm water could be detrimental to coho salmon by reducing the size of these thermal refuges." By extension, readers of the Interim NRC Report must conclude that the Committee believes alternative IGD flow regimes could also not be detrimental to coho salmon (i.e., beneficial). For example, it is currently unknown whether the amount of suitable habitat (in terms of temperature, water depth and velocity, and cover components) and the associated "carrying capacity" of individual thermal refuges would be increased or decreased under specific IGD release regimes, relative to other specific flow regimes. Indeed, the relationship between mainstem flows and total thermal refuge carrying capacity may be different for different thermal refuges and vary with water supply conditions and meteorology. Finally, given that apparently little to no tributary accretions contributed to mainstem flows between IGD and Seiad Valley during August 2001 (Figure XX), another question to be considered must be: How much water should be in the mainstem between IGD and Seiad Valley (i.e., IGD releases), given the expected mainstem thermal regime and physical habitat conditions?

Given the considerable uncertainty about how to optimize salmonid carrying capacities in the mainstem Klamath River in the summer, NMFS believes that experiments should be conducted with the goal of providing scientific evidence and foundation for summer management of the river.

NMFS agrees with the Interim NRC Report's conclusion that habitat degradation in some tributaries is contributing to the decline of Klamath River coho salmon, although NMFS is unaware of any scientific evidence that this situation is <u>limiting</u> or that any other measures taken to improve coho salmon survival or production would be overwhelmed or negated by poor tributary conditions. The fact remains that all

individual coho salmon must use the mainstem as juveniles transforming to smolts, and as adults. By extension, the survival of all coho salmon that enter the mainstem will be affected by mainstem habitat conditions. During ESA section 7 consultation, NMFS has no choice but to consider information and develop life stage survival expectations, regardless of the absence or paucity of "scientific" evidence or foundation.

NMFS also agrees with the Interim NRC Report's apparent conclusion that recent Iron Gate Hatchery practices are probably not optimum. Further, NMFS is aware that the CDFG has accomplished changes in some practices that are expected to benefit the naturally-spawned coho salmon population, and is currently evaluating other changes to their program that could provide additional benefits. For example, hatchery access for returning hatchery-produced adults has been improved for a number of years, and the practice of returning "excess" hatchery adults to the river has been curtailed and this should result in less straying into tributaries. Also alternative hatchery production rearing practices and release strategies for some species are currently being considered, and this could lead to additional release timing flexibility.

The Committee concluded that there is no substantial scientific foundation for changing the operation of the Project to maintain higher flows in the mainstem for coho salmon (presumably relative to the past decade), but no specific definition of "substantial scientific foundation" was offered. Although the Committee offered similar conclusions about Reclamation's proposed Project operations as described in their January 22, 2001, biological assessment, the Committee apparently based this solely on the possibility that lower IGD flows (e.g., lower than 398 CFS) than have been observed before could result. The Committee seems to simply be saying that, if certain low magnitudes of flow have occurred before they are acceptable, if they have not occurred before, there is no substantial scientific foundation and such flows are not acceptable. NMFS observes that this does not seem to be a responsible way to view Klamath River management in light of the complex problems at hand, and not consistent with ESA evaluation processes. Regardless of the definitions and standards used by the Committee, and in which particular instances they should apply, readers of the Interim NRC Report reader must also conclude that Project operations prior to 1996, and the resulting IGD flows, do not have a substantial scientific foundation. Finally, NMFS observes that it is not likely (i.e., very low probability) that IGD flows that consist of water that others cannot use or store (e.g., IGD flows in the early 1990s) are flows that provide appropriate survival levels for literally all coho salmon that must occupy and depend upon the river.

NMFS agrees with the Interim NRC Report conclusion that avoiding coho salmon stranding due to excessively rapid downward ramping of IGD flows seems reasonable and prudent. In the April 6, 2001, biological opinion NMFS noted that 7 coho fry were stranded during IGD flow changes in April 1998, and included a recommendation of alternative ramping rates in their RPA. This is consistent with NMFS' belief that steps, both long- and short-term, must be taken to increase the expected survival of this coho salmon life stage. Further, such steps are appropriate even prior to developing a substantial scientific foundation for individual measures, and with the knowledge that

some of these measures (including less dramatic ramping ramps) require that more water volume be allocated to IGD releases during portions of the year.

As with any conclusions drawn from the consideration of flow management and the resultant affects to Klamath River salmon populations, NMFS is pleased to know that the Committee may modify the conclusions described in the Interim NRC Report if "...scientific evidence becomes available to show that modifications of flows would promote the welfare of Klamath River coho salmon." Although the Committee does not offer any prediction about when such evidence may become available in the future, NMFS observes that scientific evidence that is robust enough to provide absolute confidence that any Project operational regime is consistent with the short- and long-term survival and recovery of Klamath River coho salmon may not be available within the next decade. This is particularly true if costly and time-consuming investigations to develop this evidence (e.g., statistically valid survival estimates, or 'cause and effect' determinations) are not initiated immediately. Although the recommendation to manage Klamath Project operations with regard to mainstem flow as close as possible to the 1990 to 2000 period is not explicitly offered in the Interim NRC Report, it is a common perception that this is the Committee's recommendation (e.g., see Reclamation's February 27, 2002, biological assessment addressing Klamath Project operations) in lieu of additional, high quality and site-specific scientific evidence that may or may not be developed in the future.

In summary, while NMFS may agree with the Committee's conclusion that there is no substantial scientific foundation for changing mainstem Klamath River flow management, NMFS cannot agree with the perceived Committee recommendation that absent conclusive scientific evidence the Project should be managed as it was in the 1990 to 2000 period. Instead, NMFS must also determine and consider expectations about the resulting effects to Klamath River coho salmon populations based on the best available information. NMFS cannot ignore selected information simply because it does not meet various standards applied by various interests. Finally, NMFS must consider these expectations in the context of tremendous uncertainty as to the status of the species, and after explicitly determining what other activities that adversely affect the fish (e.g., activities not subject to ESA section 7 consultation) are reasonably likely to occur. This includes the cumulative effect of substantial water management activities outside of the Project boundaries.

From the 30 July 2003 Issue of the *Wall Street Journal*

Oregon Water Saga Illuminates Rove's Methods With Agencies

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WASHINGTON -- In a darkened conference room, White House political strategist Karl Rove was making an unusual address to 50 top managers at the U.S. Interior Department. Flashing color slides, he spoke of poll results, critical constituencies -- and water levels in the Klamath River basin.

At the time of the meeting, in January 2002, Mr. Rove had just returned from accompanying President Bush on a trip to Oregon, where they visited with a Republican senator facing re-election. Republican leaders there wanted to support their agricultural base by diverting water from the river basin to nearby farms, and Mr. Rove signaled that the administration did, too.

Three months later, Interior Secretary Gale Norton stood with Sen. Gordon Smith in Klamath Falls and opened the irrigation-system head gates that increased the water supply to 220,000 acres of farmland -- a policy shift that continues to stir bitter criticism from environmentalists and Indian tribes.

Though Mr. Rove's clout within the administration often is celebrated, this episode offers a rare window into how he works behind the scenes to get things done. One of them is with periodic visits to cabinet departments. Over the past two years Mr. Rove or his top aide, Kenneth Mehlman -- now manager of Mr. Bush's re-election campaign -- have visited nearly every agency to outline White House campaign priorities, review polling data and, on occasion, call attention to tight House, Senate and gubernatorial races that could be affected by regulatory action.

Every administration has used cabinet resources to promote its election interests. But some presidential scholars and former federal and White House officials say the systematic presentation of polling data and campaign strategy goes beyond what Mr. Rove's predecessors have done.

"We met together and talked a lot about issues of the day, but never in relation to polling results, specific campaigns or the president's popularity," says Lisa Guide, a political appointee at Interior during the Clinton administration. Frank Donatelli, political director in the Reagan White House, says "we were circumspect about discussing specific administration rulings that had yet to be made."

Mr. Rove declined to comment. White House spokeswoman Ashley Snee says the agency visits simply were designed to keep political appointees apprised of the president's accomplishments and priorities. Klamath River water levels were an issue at least as far back as the 2000 presidential campaign. During the unusually dry summer of 2001, angry farmers stormed the head gates to forcibly release water, but the Bush administration generally resisted their demands. In 2002, the issue continued to loom large as Mr. Smith faced a potentially difficult re-election challenge.

On Jan. 5, Mr. Rove accompanied the president to an appearance in Portland with Mr. Smith. The president signaled his desire to accommodate agricultural interests, saying "We'll do everything we can to make sure water is available for those who farm."

The next day, Mr. Rove made sure that commitment didn't fall through the cracks. He visited the 50 Interior managers attending a department retreat at a Fish and Wildlife Service conference center in Shepherdstown, W.Va. In a PowerPoint presentation Mr. Rove also uses when soliciting Republican donors, he brought up the Klamath and made clear that the administration was siding with agricultural interests.

His remarks weren't entirely welcome -- especially by officials grappling with the competing arguments made by environmentalists, who wanted river levels high to protect endangered salmon, and Indian tribes, who depend on the salmon for their livelihoods. Neil McCaleb, then an assistant Interior secretary, recalls the "chilling effect" of Mr. Rove's remarks. Wayne Smith, then with the department's Bureau of Indian Affairs, says Mr. Rove reminded the managers of the need to "support our base." Both men since have left the department.

An Interior spokesman, Mark Pfeifle, says Mr. Rove spoke in general terms about the Klamath conflict in the course of a broader discussion. Without directing a policy outcome, Mr. Pfeifle says, Mr. Rove simply "indicated the need to help the basin's farmers." In the end, that is what happened when Interior reversed its previous stance and released more water. Mr. Rove's intervention wasn't the only reason. Mr. McCaleb himself says the biggest factor was a report from the independent National Research Council, which questioned the basis on which Interior scientists had made earlier Klamath flow decisions.

But Mr. Rove didn't let the matter drop after the Shepherdstown meeting. Weeks later, he returned to Oregon and met with a half-dozen or so farmers and ranchers. Thereafter, the White House formed a cabinet-level task force on Klamath issues. The results became clear on March 29, when the water was released to parched farms.

That hasn't ended the controversy. Environmentalists blame the change in water levels for the subsequent death of more than 30,000 salmon, calling it the largest fish kill in the history of the West.

A National Marine Fisheries Service biologist, Michael Kelly, has asked for protection under federal "whistle-blower" laws, saying he was subjected to political pressure to go

along with the low-water plan and ordered to ignore scientific evidence casting doubt on the plan. This month, a federal judge ruled the administration violated the Endangered Species Act in the way it justified the water diversion.

Administration officials note that the judge found fault only with a narrow portion of the biological opinion, and didn't order changes in water flow. Interior is investigating the cause of the fish kill, Mr. Pfeifle says.

Oregon farmers point to other factors in the salmon kill, including water temperature and the presence of an infectious disease during salmon-spawning season. And they haven't stopped pressing to keep the irrigation water coming.

A few weeks ago, the federal Bureau of Reclamation in Klamath Falls warned farmers that the department would curtail the irrigation flow. Irate, Republican Rep. Greg Walden began making calls to protest. His first one went to Mr. Rove's office.

Within hours, the idea was dropped. Interior officials say managers from two cabinet departments agreed on a way to avoid it.