THE KLAMATH RIVER BASIN

HEARING

BEFORE TH

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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RECEIVE TESTIMONY ON WATER RESOURCE ISSUES IN THE KLAMATH RIVER BASIN

JUNE 20, 2013



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THE KLAMATH RIVER BASIN

THURSDAY, JUNE 20, 2013

U.S. SENATE, COMMITTEE ON ENERGY AND NATURAL RESOURCES, Washington, DC.

The committee met, pursuant to notice, at 9:40 a.m. in room SH-216, Hart Senate Office Building, Hon. Ron Wyden, chairman presiding.

OPENING STATEMENT OF HON. RON WYDEN, U.S. SENATOR FROM OREGON

The Chairman. The committee will come to order.

First, I want to thank all of our guests for being here today. I know that many of you traveled a long distance to come. We very much appreciate everybody being here.

The committee is holding this round—table to discuss what is arguably the most challenging set of water resource issues in our country. Of course, those issues are what the Klamath Basin is all about and what the Basin has been wrestling with for some time.

My own view is the Klamath needs a long-term solution, and one that addresses 4 key principles.

First, there needs to be long-term certainty that our irrigators

are going to get the water they need. Second, the Federal Government has the right to approve or deny any dam removal, although PacifiCorp has the right to make

a business decision. Third, it's quite clear the Klamath tribes have to be a part of the solution.

Finally, it has to ensure the recovery of our fish runs.

My own view is much progress has been made over the past 10 years trying to find common ground on how to reconcile the many important and competing interests in the Basin. This work is making a big difference for the on-project irrigators. But the fact is hundreds of farm households and citizens have been left behind.

Working for a permanent solution is especially important now because the Basin is being pounded by drought once more. As we speak off-project irrigators are losing water supplies that they depend on. Everyone, and let me emphasize, everyone in the Basin has a right to expect better.

Last month I was in Klamath Falls for a town hall meeting. My sense from that gathering is that all sides now recognizing how difficult this summer is want a real solution. From that town hall meeting I got a sense that people in the Basin want to put the disputes behind them. They want certainty for the future.

When I chaired a hearing on drought earlier this spring the Commissioner of Reclamation told the Committee that it is his high expectation that water will not be shut off to the Klamath project this summer. That's because the on-project water users have negotiated with the Tribes and other interests in the Basin and have

agreed with them on how to address water-short years.

This important compromise, a compromise that hopefully will keep the on-project irrigators farming this year, is a step in the right direction. The reality is the drought and the exercise of water rights under State law has resulted in off-project irrigators not receiving the water that they are accustomed to taking. Without a fresh solution that addresses the needs of everyone in the Basin, it's clear that's only going to happen more often.

To the parties that have not reached a compromise and are experiencing that water cut-off, I want them to know that I am committed to sitting down with all of you and the other Basin interests to find a long-term solution that reflects both the anticipated water supply in years to come and economic issues that those family

farmers are facing.

In the West, we all understand that water is precious. The determination of water rights is exclusively within the purview of our States. The prior appropriation doctrine-what's in effect, first in

time and first in right-sets the rules of the road.

Our State, the State of Oregon, has just completed a 38-year process to adjudicate water rights in the Basin. As a result, the Klamath Tribe has been recognized as having rights going back to, and I quote, "time immemorial." These are in effect property rights under our State's law.

In 2001 when the Basin had another very horrendous drought, these water rights had not been adjudicated. Now the Basin is bound by the system under State law that directs how to deal with water shortage and who gets what water. Unless a court intervenes, these are the rights that will be enforced this year and in the future. I think it's worth noting the Klamath County Circuit Court already declined to intervene just in the last few days.

Now the Klamath Basin presents other serious challenges as well: degraded fisheries, high electricity costs, poor water quality, and adversely impacted towns and communities. Farming is obviously an energy-intensive undertaking. Our family farmers need af-

fordable power to stay afloat.

I have been working over the last few weeks with PacifiCorp, the Bonneville Power Administration, and the Interior Department to address this issue and can announce today that on-project users will soon see a real reduction in their power rates. Now, I discussed this with Congressman Walden last night and both he and I, and I know certainly Senator Merkley, all of us agree that we need rate relief for all our farmers. My own sense is this will require legislation. But there may be other ways to provide power rate relief for off-project users.

I also at this time want to publicly express my appreciation to Bonneville, to PacifiCorp, the Department of the Interior, for mak-

ing what I have just stated possible.

That, in effect, is why the committee is holding this hearing. We are looking today for constructive approaches and fresh ideas to

build on the good work that has been done in the past and to move ahead and to recognize the fiscal realities Congress and our Nation are facing.

After considerable thought, I've concluded that the KBRA and essentially what has been agreed to at this point, is simply unaffordable in the current Federal budget environment. My message on this point is working together in good faith there's got to be a way to accomplish the agreement's objectives with a lower price tag.

Finally, I want to pledge to Oregonians that California is going to pay its fair share of this program. Already ratepayers who Senator Merkley and I represent are paying for the Klamath solution. Oregonians are still waiting for California to pass its bond to pay its share of the cost.

As chair of this committee, I believe all parties should have a chance to have input before the committee advances any legislation. I state that whether or not they have been for the previous agreements or have differing views. We've already received more than 4,000 comments through our website. We want to continue to hear from stakeholders and the public and work for that lasting so-

lution.

Let me close with just one last point. We can figure this out. I am very much aware that there are people-and I was reading various news articles last night-there are people hanging crepe on all this. They're saying this can't be done. This is too contentious and it's just not doable.

I want you to know as we begin this discussion I've got a lot more faith in you and your—good will. I think there are people around this table and throughout the Basin that understand this has gone on long enough. People who understand how serious the situation is now and who want us to come together and find a solution.

My own take with respect to these intractable resource challenges and Senator Murkowski and I have been able to tackle a few of them with some measure of success here in the last couple months, is that nobody in a challenging situation like this gets everything they want. Nobody gets everything they believe they deserve. But working together we can find a way so that everybody gets what they need as part of a lasting solution.

So that's what today is going to be all about. I want everybody to understand that we're going to stay at this. We're going to stay

at it until we find a solution this time.

So I'm very lucky to have my colleague from Oregon here. Senator Murkowski will make her statement. Want to, again, express

my appreciation to her.

Late last night 14 bills came out of this committee and passed the Senate Floor, late last night. Bills that in many instances had been debated for years. It could not have been done without the good will and the partnership that has been possible in this committee.

Senator Murkowski, I've said it before, I'm very appreciative. I'm appreciate of you coming here to discuss a matter so important to Senator Merkley and myself. We welcome your comments. Then we're going to hear from Senator Merkley.

[The prepared statement of Senator Boxer follows:]

PREPARED STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM CALIFORNIA

Mr. Chairman, thank you for holding this hearing on water resource issues in the Klamath River Basin.

Covering more than 10 million acres and stretching more than 250 miles from southern Oregon to the Pacific Coast of northern California, the Klamath River Basin (Basin) is vitally important to the tribes, farmers, fisherman, and others who call it home. Known as the "Everglades of the West," the Basin's lakes, rivers and forests provide habitat for more than 400 species of wildlife and is critical for the recreation and tourism industries in the region.

A severe drought in 2001 and the massive die-off of more than 34,000 salmon the following year sounded the alarm that a bold plan was necessary to balance the needs of all those who depend on this critical resource.

The stakeholders in the Klamath River Basin responded to this crisis by developing a plan through cooperation and consensus. In 2010, the Klamath Hydrobelief a plan through cooperation and consensus. In 2010, the Maintain Tryuro-electric Settlement Agreement and the Klamath Basin Restoration Agreement was signed by more than 40 parties. I was proud to support the efforts of the coalition's agencies, tribes, farmers, fisherman, ecologists, and scientists, by cosponsoring im-plementing legislation in the last Congress, the Klamath Basin Economic Restoration Act (KBERA)

No agreement of this complexity is ever perfect, but the KBERA was an important start to the legislative discussion because immediate relief for the region is paramount. The ultimate costs of inaction to the \$750 million dollar a year fisheries and agricultural economy alone, and subsequent federal disaster relief, far outweigh the investment needed to support solutions that will bring reliability to the region's water supply

I firmly believe that the Klamath River Basin will serve as a model of what can be accomplished when communities historically divided by competing interests rec-

ognize the most important interest of all, our shared future.

Mr. Chairman, I look forward to working with you and the Ranking Member on this and other issues that will come before your Committee this Congress. I'm dedicated to openly working with the parties to ensure success, and thank you for the opportunity to address this hearing.

STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM ALASKA

Senator Murkowski. Thank you chairman. I think it is important for all those that are gathered here to recognize that what you're seeing here with the very broad list of participants around the table. It is just yet one more measure of how the chairman of this committee has been handling things.

We've got our fair share of contentious issues that we deal with on the Energy and Natural Resources Committee. Our process here, our way forward, has been one where we roll up our sleeves and we tackle the tough things. We try to find that sweet spot, as you describe it so many times.

It's hard stuff. It's tough stuff. You have been involved with these issues for decades.

Litigation that goes on for decades.

Issues that are absolutely integral to all that goes on within your State in many ways and also down in California.

So the fact that you are all here at the invitation of the chairman of the Energy Committee, I think, is really quite significant and important.

Ĉoming from a State like Alaska where more times than not we have more water than we need, sometimes it's been difficult for me to appreciate fully these water wars that go on. My first subcommittee that I ever chaired was Chairman of the Water and Power Subcommittee. That was a real eye opener for me in terms of understanding what really has gone on historically with discussions and arguments and fights and hopefully resolutions over our

State's water rights.

But I do think that, again, it's important to note that the chairman has really gone out of his way to make sure that this is an all inclusive approach. Truly gone out of his way to make sure that we have stakeholders here this morning that are representing every interest whether it's the farmers, the Indian tribes, commercial and sport fishermen, power producers, environmental groups, municipal water users, outdoor enthusiasts, advocates for Federal wildlife refuges. So gaining the full perspective on the 2 Klamath Basin agreements is going to be critically important.

For me to better understand the goals there which I understand at this point include allocating water resources so farming, tribal,

recreational, wildlife and fishing interests are protected.

Restoring the fisheries in the Basin.

Removing 4 dams while continuing to provide affordable power to agricultural communities.

Improving habitat and water quality.

Ensuring no further degradation of the Basin resources.

As the chairman has indicated, all very complex, all very challenging, particularly at a time of limited Federal dollars. But I do hope that this morning's hearing will provide that better understanding on how we proceed into the future. I hope that you take the chairman's words to heart that we will stick with this. I think you've got the commitment of your 2 Oregon Senators to make this happen and know that I will be working with you from the committee perspective to do what I can to help facilitate.

I do have Appropriations mark up at 10:30 so I'll be excusing myself at that point in time. But it won't be because of lack of interest. It's multiple scheduling. But Mr. Chairman, thank you for the opportunity to be part of, what I think, is a great collaborative process on how we move forward with some very complex issues.

The CHAIRMAN. Thank you very much, Senator Murkowski.

Suffice it to say what we're trying to do is sort of throw out the textbook with respect to a lot of these issues, the textbook that says you mostly have to fight. At the end of the day, everybody goes to Federal court and fights some more.

It's only possible to have this approach that really brings people together when we have colleagues like you make it possible. I want

everybody to know how appreciative I am.

Senator Merkley has done an awful lot of good work on this issue. He's holding town hall meetings, meeting with all the parties, has spent a lot of time trying to bring people together. I so appreciate our partnership.

Ŝenator Merkley you just go forth as you would like.

STATEMENT OF HON. JEFF MERKLEY, U.S. SENATOR FROM OREGON

Senator Merkley. Thank you so much, Senator Wyden and Chair of this committee. Thank you to Ranking Member, Senator Murkowski. I'm going to thank you both for holding this hearing and inviting so many stakeholders from Oregon with multiple

things at stake, important things at stake for their families, for their community in trying to figure out a path forward.

I know that you've been engaged in this for far more than a decade. I appreciate your interest and that experience that you're

bringing to bear.

When I was first elected to the Senate one of my first trips was down to the Klamath Basin to talk to folks about the history of the Basin and of the challenges that existed there. It was in 2001 when I was a member of the Oregon House that I first became aware of the challenges in sharing water because that was a year of substantial drought, the worst drought to date at that point. It really became national news. It became national news because of the enormous frictions of how, in a drought year, how do you allocate water?

Of course, at that point the water rights weren't adjudicated. That was before the Klamath Basin restoration conversation. It was on the trip that I took down there in 2009 that I was reminded of the saying I'd heard all of the time I was growing up which was, "Whiskey, that's for drinking and water that's for fighting." That captures the challenge of sharing this incredibly important resource.

On that trip I was briefed on the fact that many stakeholders in the community were meeting together to try to find a win/win path forward. One person described it to me this way. He said, the only person winning are the lawyers. We don't want to spend the next 20 years just enriching lawyers. We want to solve the problem.

I was very impressed that folks, who could barely talk to each other after the 2001 drought, had been sitting down for years to try to forge a path forward. I know that wasn't easy. But I do know that in the course of those meetings people came to respect each other, to understand each other and to realize there could be a path that was better for irrigators, better for the river, better for the fish, better for the tribes and that that was what they were going to try to capture.

I'm a skeptical. I'm a skeptical that you could go from a theory of wanting to achieve such an agreement to actually sketching an outline. But the many community stakeholders who participated did sketch an outline. They did actually put it into print. They signed the agreement, the Klamath Basin Restoration Agreement

and a second power agreement.

Senator, the Secretary of Interior flew in to witness it. I'll tell you that those bonds that were formed in that process were incredibly important in 2010 during another extremely difficult drought where the relationships with each other and the relationships with Interior Department and with the Agricultural Department helped the community find a path forward that worked better than in 2001. Anyone nationally would not have known that the drought that year in 2010 was worse than 2001 because it never became national news as the community worked to solve the problems.

So I think the stakeholders in the Basin, they're tired of fighting. They're tired of suing. They're tired of arguing. They want to end

the water wars with a plan that works better on all parts.

I certainly resolve to do what I could to assist. Said that if they could sign an agreement I would be a partner and try to help with

Federal implementing legislation. That is process that is now here in this committee. I pledge to work with you and with the ranking member and with the committee as best as I can to help figure this out.

You've laid out the key parameters that need to be addressed. We have here today folks who are part of the Klamath Basin Restoration Agreement. We have folks who were not part of the agreement who have come to share their perspectives. That's an important part of this process as well that they have the opportunity to put forward their concerns as we seek to build this path forward.

So I simply want to close by saying that this year we have another worst ever drought. I hope that while everyone is here it's raining back home. I heard it was raining a little bit yesterday in the Basin. But it needs to rain a lot or this truly is a very, very difficult.

In 2010 I was going through the Floor of the Senate with a chart which compared the lake levels in different years compared to the 2010 level which was a way of dramatizing how that was the worst ever. There's the complexities here are enormous between the endangered suckers in the lake, the endangered salmon in the stream, the demands on for irrigation and so forth. So not simple, for sure.

The challenges now for us in Congress to put the same type of effort into this that all of our witnesses have put into the conversation. I look forward and hope that we can succeed in building a framework that can be adopted here by the U.S. Senate, carry momentum to the House and help build a better future for all Oregonians in the Basin.

Thank you.

The CHAIRMAN. Senator Merkley, thank you. You've put a lot of sweat equity into this cause in terms of working with people. I very much appreciate it.

As Senator Merkley has indicated, now is the time, literally and figuratively. So let's have each of you take a few minutes and we'll just throw it open. Obviously you've heard from me and my colleagues the premium is on fresh thinking; that's going to help bring people together.

Mike Connor, please. Welcome.

STATEMENT OF MICHAEL L. CONNOR, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Mr. CONNOR. Thank you, Mr. Chairman, Ranking Member Murkowski, Senator Merkley. I'm Mike Connor, Commissioner of the Bureau of Reclamation here representing the Department of the Interior interest today. I appreciate the opportunity to discuss the water resource issues in the Klamath River Basin.

The Klamath has a long history of conflict driven by scarce water resources that have over allocated among competing uses. This year's drought continues that unfortunate trend. There's new turmoil caused by the ongoing priority enforcement of water rights resulting in the shut off of junior water users. At the same time project irrigators will not receive a full supply of water. The tribal fishery in Upper Klamath Lake continues to be closed to all but a ceremonial catch of 2 to 3 fish.

Wildlife refuges that support some of the most important habitat on the Pacific Flyway will struggle for water. Fish species in both Upper Klamath Lake and the Klamath River continue to be at risk of extinction. Even more disturbing is that the analyses we've done that indicate that without a long term solution all of these problems will likely worsen and may occur more frequently in the coming years due to the impacts of climate change.

Many of the parties most affected, those that live and work in the Klamath Basin, have decided enough is enough. Have charted a different future for themselves. The Klamath Hydroelectric Settlement Agreement, or KHSA, and the Klamath Basin Restoration Agreement, or KBRA, were signed in February 2010 and require

action from Congress to be fully implemented.

If enacted these agreements would address the ongoing impacts on the rest of the Basin's resources while strengthening the com-

munities that rely on these resources.

The Klamath agreements hold great promise to transform what was once a landscape of turmoil and conflict to one built on cooperation and trust. Our perspective is that a long term solution that is driven at the local level by those who are most directly affected is the best opportunity to avoid the year to year crises that plague this Basin. Under this approach there is a mutual commitment to a shared resource, the economy is strengthened and those who are most directly affected have a say in how the resource is managed.

We should not lose this opportunity and we understand the need

for flexibility here, Senator Wyden.

My written statement describes the KHSA and KBRA in detail. One point I'd like to make here though is that the promise of the Klamath agreements are more than just lofty words. They can be translated into real, specific benefits and conditions like the current water year.

For example with the KHSA and KBRA in place this year's project allocation would be 353 thousand acre feet instead of the projected 219 thousand acre feet.

Wildlife refuges would be allocated approximately 51 thousand acre feet compared to the zero available this year.

Thirty thousand acre feet of depletions above Upper Klamath Lake would be dedicated toward fishery purposes with the system managed in real time.

Tribal members would be at work on implementing habitat res-

toration actions.

Water users both on and off project who are currently paying between 9 and 15 cents per kilowatt-hour power for agricultural production relation would be paying about half that amount allowing for more investment in the agricultural economy.

There would also be more tools to address fishery needs and of course, the Secretary would be able to proceed with determining

whether damming is in the public interest and will advance fishery

restoration.

Without the framework of the Klamath agreements we are expanding a system that simply cannot meet all the competing demands year in and year out. Under this scenario the current cycle of crises management, disaster relief and unfulfilled tribal rights will continue. A more permanent solution that provides greater predictability for the availability of water and improved fishery resources is an investment that will be more cost effective in the long run.

We acknowledge that despite our best efforts there are parties that have not signed the Klamath agreements. I speak to their concerns in my written statement and am glad to discuss them further today. Given the constraints of time I'll simply conclude by thanking the committee, Mr. Chairman, your leadership for convening this round table and we're looking forward to working on the agreements that we need to put in place for the long term.

[The prepared statement of Mr. Connor follows:]

PREPARED STATEMENT OF MICHAEL L. CONNOR, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Chairman Wyden, Ranking Member Murkowski and members of the Committee, I am Mike Connor, Commissioner of the Bureau of Reclamation (Reclamation). I am pleased to represent the Department of the Interior (Department) today to discuss

water resource issues in the Klamath River Basin.

The Klamath River Basin has a long history of conflict driven by scarce water resources that have been over-allocated among competing uses. While we are not far removed from the events of 2001, when water to Reclamation's Klamath Project (Project) was not delivered in the spring, or 2002, when 30,000 adult salmon perished in the lower Klamath River, or 2006, when the commercial ocean fishery closed along the Oregon and California Coasts due to poor Klamath Basin stocks; we only need to look at the conditions in 2013 to understand the importance of a long-term, comprehensive, and durable solution for the Klamath Basin. Consistent with eight out of the last twelve years, project irrigators will again not receive a full supply of water, and the power rates they are paying continue to escalate and are among the highest charged to irrigation projects in the West. Both of these issues directly and adversely affect the Klamath Project water users and the \$600 million a year their agricultural products and jobs contribute to the local economy. 1

With the Upper Klamath Basin experiencing a drier than normal water year, last week the Department and the Klamath Tribes exercised their adjudicated water rights for rivers flowing into the Upper Klamath Lake, which I will go into further detail later in my testimony. In addition, the tribal fishery in Upper Klamath Lake continues to be closed to all but a ceremonial catch of two to three fish per year and the abundance of these endangered fish populations have continued to decline for the last 20 years. Wildlife refuges that support some of the most important habitat on the Pacific Flyway struggle for water and suffer bird die offs, water quality continues to be degraded, and species in both Upper Klamath Lake and the Klamath River continue to be at risk of extinction. Private irrigators in the upper basin will struggle to maintain crops and livestock in this drought year. And, finally, a relatively large run of Chinook salmon is expected to return home to the Klamath River this fall. While this should be a reason to celebrate, this year's drought conditions have raised concerns about how to avoid another salmon die-off in the Lower Klamath River. Our analysis shows all of these problems will likely worsen and may occur more frequently in the coming years due to impacts of climate change unless a long term solution is found.2

Moreover, these very same scenarios have played out in three of the four years since over 40 parties have signed the Klamath Agreements; the Klamath Hydro-electric Settlement Agreement (KHSA), and the Klamath Basin Restoration Agree-

¹ Revised Cost Estimates for the Klamath Basin Restoration Agreement. June 17, 2011. http://

²Revised Cost Estimates for the Mamath Basin Restoration Agreement. June 17, 2011. http://
216.119.60.156 /Klamath/2011/06/RevisedCostEstimates.pdf

²As stated in section 4.1.1.2 of the Secretarial Determination Overview Report, our analysis shows all of these problems will likely worsen and may occur more frequently in the coming years due to impacts of climate change. For example, models show that, while there is some uncertainty, over a period of 50 years (2012 to 2061), water temperatures in the Klamath Basin would increase 1 to 3 degrees C (2 to 5 degrees F) and earlier snow melt would decrease summer flaws. Benowing the Klamath Basin would not show the first of the following days would not some access to critical each water. flows. Removing the Klamath River dams would restore salmon access to critical cool-water habitat for spawning and rearing in the upper basin, thereby helping to buffer against effects of climate change. Removing the dams would also immediately improve late summer and fall water temperatures for salmon below this reach, thereby buffering against future impacts of climate change.

ment (KBRA) in February 2010. The Klamath Agreements were crafted to address these ongoing impacts and risks to the Basin's resources while strengthening communities that rely on these resources by charting a path of collaboration and cooperation. The Klamath Agreements hold great promise to transform what was once a landscape of turmoil and conflict to one that is built on cooperation and trust with the recognition that we cannot take care of ourselves if we fail to also take care of our neighbors

While visiting the Basin several times over the past few years, I have been personally struck that tribal members, fishermen, and irrigators—who only a few short years ago could not even stand in the same room together—are no longer arguing with each other but are now advocating for each other and for the protection of each other's interests. The Klamath Agreements stand as a common vision for these diverse parties, and the commitment to cooperation and collaboration contained in

these agreements is nothing short of historic.

Our perspective is that a long-term, durable solution that is driven at the local level by those who are most directly affected is the best and perhaps only opportunity to avoid the year to year crises that are endemic to this basin. Under this approach, there is a mutual commitment to a shared resource, the economy is strengthened and jobs are created, and those who are most directly affected have a say in how the resource is managed. It is for these reasons that the framework embodied in both Klamath Agreements holds such promise for addressing the needs of the Klamath Basin in a manner that fits the above criteria.

To be sure, implementing these agreements and accomplishing the parties' collective goals will take substantial resources. From a Federal perspective, we have significant concerns about overall costs in light of the current fiscal climate. Whatever the final costs might be, there should be an appropriate cost share that follows the 'beneficiary pays' principle and is in line with other restoration programs that have been enacted in the recent past. We also acknowledge there are a handful of parties that have not signed the Klamath Agreements despite the non-partisan development of this framework over several federal and state administrations. We needr to continue our efforts to find common ground with these groups. But we also believe that the time is ripe for action and that we have a unique opportunity to heal and restore the basin in a lasting manner. We should not lose this opportunity.

The KHSA is a unique combination of environmental and business interests striking an agreement that combines both business sense and protection of natural resources. It is an agreement to study the potential removal of four privately owned hydroelectric facilities on the Klamath River and to determine, based on a host of scientific and engineering studies, whether removal of these facilities is in the public interest, including consideration of the interests of local and tribal communities, and whether it will advance restoration of the fisheries. The KHSA calls for removal to occur in 2020, should there be a determination that removal is in the public interest. Congressional authorization is necessary for the Secretary to make this determination. Should there be a decision to remove these facilities; the costs shall be borne by a combination of PacifiCorp's electricity customers in Oregon and California, through a minimal surcharge, and a water bond from the State of California. Consequently, there are no federal costs associated with any potential dam removal under the KHSA.

The KHSA also includes certain protections for PacifiCorp in the facilities removal process should there be a determination to remove these dams. The current cost estimate is below the protection levels provided to PacifiCorp, though it remains un-certain at this point who would bear any costs in excess of those protections, should such a situation arise. The KHSA also provides a commitment for PacifiCorp to transmit and deliver federally generated power to the Klamath Project, which could provide savings to water users on power costs, making for efficient project operations, which in turn makes more water available for conservation purposes. On this point, discussions are underway between PacifiCorp, the Department, Bonneville Power Administration, and the Klamath Water Users on developing a plan that can be approved by the Public Utility Commission in Oregon to provide federal preference power to the Klamath Project water users. In 2006, that Commission terminated the Klamath Water Users' preferential power contract as discriminatory; then gradually increased the water users' power rates over a period of seven years to equilibrium with market rates for agricultural use in the region. We could have similar discussions with Western Area Power Administration for the California part of the Project. Although we do not have the authority to provide such federally generated, below-market-rate power to off project irrigators, and doing so would be an expansion of Reclamation's typical project arrangements, there are provisions in the Klamath Agreements, if approved by Congress that would approve such an arrangement.

KBRA

The KBRA is a restoration agreement that includes water allocation and fish habitat restoration actions, predicated on, and working in conjunction with dam removal, to restore the Klamath Basin. The KBRA includes agreements among tribal and non-tribal entities resolving water rights disputes and provides the means for Reclamation's Klamath Project to conserve water supplies and develop sources of power that will place the Project on par with other similarly sized irrigation projects in the West. The KBRA provides real water to wildlife refuges, and if funded will put tribal members to work on habitat restoration actions needed in the Basin. Through the establishment of a Federal Advisory Committee Act charter, the KBRA will return many decisions regarding the Basin resources back to local control. While most of the items in the KBRA, especially those involving tribal and fisheries programs, are presently authorized under existing law, key items associated with making Reclamation's Klamath Project more efficient and flexible would require additional Congressional authorization.

To illustrate how the Klamath Agreements would change the impacts of the current water year, if fully authorized, the Project allocation would be 353,000 acrefeet instead of the current projected 319,125 acre-feet, wildlife refuges would be allocated 51,000 acre-feet compared to no available water this year, and 30,000 acrefeet of depletions above Upper Klamath Lake would be dedicated towards fishery purposes, with the system managed on a real-time basis able to react to changes in hydrology. Tribal members would be at work implementing habitat restoration actions. There would also be more tools to address fishery needs in the fall. Without the framework of the Klamath Agreements, we are managing a system that simply cannot meet all the competing demands year in and year out. Without the Klamath Agreements, the current cycle of crisis management, disaster relief, animosity between communities, and unfulfilled tribal rights will continue. A more permanent solution that provides greater predictability as to the availability of water and improved fishery resources is an investment that will be more cost-effective in the long

KHSA/KBRA Science Process

Between the signing of the Klamath agreements in early 2010 and today, many federal studies have been undertaken and completed that analyze the potential effects of Klamath River dam removal and implementation of KBRA on local communities, tribes, and the environment. A Final Environmental Impact Statement analyzed the proposed action to remove the four lower PacifiCorp dams on the Klamath River in 2020 and to implement the KBRA, as well as three alternatives where some or all of the dams would remain in place.

The process undertaken to develop new information for a Secretarial Determination was rigorous, open and transparent, provided multiple opportunities for stakeholder and public participation, included independent subject-matter experts to provide a breadth of perspectives, and relied on multiple levels of independent peer review to ensure objectivity and accuracy of findings, as described in more detail

 A team of more than 50 federal experts, scientists and engineers, from eight separate federal agencies and offices, prepared or oversaw the preparation of 50 new technical 5 reports covering areas such as engineering, hydrology, fish biology, economics, cultural resources, recreation, and real estate. Agency guidelines governed the peer review process for these published reports.

lines governed the peer review process for these published reports.

Completely separate from the development of these new technical reports, four independent expert panels were convened to provide additional perspectives regarding the likely impacts of dam removal and KBRA implementation on four groups of fish species. The four reports from the expert panels benefited from broad public and stakeholder input as well as independent peer reviews.

• The major findings from these 50 reports, the findings from the four independent expert panel reports, and many other existing reports were summarized in a single Klamath Overview Report. This Overview Report was treated as a "Highly Influential Scientific Assessment" and received a second round of peer review from an independent panel of six nationally-recognized experts. The peer reviewers were also provided public comments on the Overview Report to consider during their peer-review deliberations. As part of the peer review process, an independent "referee" ensured that the federal scientists adequately addressed each of the peer review comments and recommendations in the Final Overview Report.

All of these studies and materials are available to the public and can be found at http://klamathrestoration.gov/.

Public Involvement

Over 80 meetings and workshops were held throughout the Basin over a period of two years that allowed for public and stakeholder participation in the science process. The public and stakeholders provided input on hypotheses to be tested, study designs, available sources of information, data analysis, and conclusions to be drawn from the analyses. The public involvement improved the quality of reports. A summary of the findings from the science process is attached as an Appendix.

Parties that have not signed the Klamath Agreements

We acknowledge that despite our best efforts, there are a small number of parties who participated in the negotiations but have chosen not to sign the Klamath Agreements. We respect that each party has its own unique concerns and must make its own decisions as to what it believes is in its best interest. Some of those who oppose the Klamath Agreements want to maintain the status quo or have general concerns about dam removal; others believe their resources are being inappropriately harmed or their rights are being terminated; or, in the case of homeowners around the reservoirs, that they are bearing an unfair share of the adverse consequences of the Klamath Agreements.

As to those who want to maintain the status quo or have general concerns about dam removal, I wish to be clear that as Commissioner of the Bureau of Reclamation, which owns 476 dams and annually generates 40 billion kilowatt-hours of electricity, I understand the importance of dams to both the economy and the communities of the American West. I also believe that given the ongoing challenges and increasing demands for limited water resources, we should continue to evaluate opportunities to develop additional storage and power generation opportunities where it makes sense. But we should also not be afraid to evaluate potential dam removal when the specific circumstances warrant. The KHSA reflects the unique circumstances of the Klamath Basin, where the owner of these private dams, in making a business decision that is in the best interests of its electricity customers and the company, has agreed to evaluate whether their removal would advance fisheries and be in the overall public interest as part of a Basin-wide restoration effort that addresses many of the systemic problems that continually plague the Klamath Basin. Dam removal in this instance has been given a hard look because, with the passage of time, it is clear that the ongoing costs of these facilities most certainly outweighs the benefits— something now confirmed based on the analyses completed.

While no final determination has been made on the removal of these PacifiCorp dams, there are several specific facts that bear emphasizing: these dams are privately owned and their owner has agreed, as part of a business decision, to evaluate their potential removal, which could still occur as an independent business decision even without any Congressional action on the Klamath settlements. In addition, these dams provide no water storage for purposes of irrigation, drinking water, or flow augmentation for fish. Nor are they designed or currently operated for downstream flood control. Moreover, these dams generate a limited amount of electricity, approximately 82 megawatts, which PacifiCorp has already made up with other power sources.

Just as importantly, if these dams are retained, PacifiCorp would have to obtain a new long-term operating license, which would require retro-fitting the dams for fish passage and remedying water quality and temperature issues below the lower-most dam. Provisions of a new license, plus additional operational restrictions, would decrease power production by 20 percent and result in the loss of the majority of peaking power at J.C. Boyle Dam. PacifiCorp's estimated that relicensing would involve at least \$400 million in capital costs for retro-fits, and \$60 million in operation and maintenance cost over the 40-year life of the new operating license. The Public Utilities Commissions for both Oregon and California agreed that relicensing would include substantial costs and that there was a significant risk that ratepayers would face much higher costs if PacifiCorp sought relicensing than they would under the KHSA. When this is combined with flow requirements that will decrease hydropower generation and peaking power, both Commissions determined that dam removal as laid out in the KHSA, was preferable to relicensing. Simply operating these dams as they have been operated for the last 50 years is not a viable option. Additionally, our climate change analysis shows that water temperatures will increase 2-5 degrees Fahrenheit over the coming decades, exacerbating the warming influence on the river from the dams and reservoirs, further impacting salmon, and increasing costs to ratepayers for keeping the dams in place. These additional facts are why we have undertaken an analysis of potential facilities removal within the

context of the great promise of the Klamath Agreements to restore resources and

help struggling communities in the basin.

There are others who favor of dam removal but do support the Klamath Agreements because they either want to remove or significantly limit irrigated agriculture from the Basin or believe that the assurances in the Agreements regarding water supply and, the connected issue of river flows, terminate tribal rights. As to the former, irrigated agriculture is part of the societal fabric of the Basin and, as mentioned earlier, provides significant jobs and economic support to all communities of the Basin. While the KBRA does provide further funding for voluntary retirement of up to 30,000 acre-feet of irrigation water on a willing seller or buyer basis, total removal of irrigated agriculture is simply not consistent with a comprehensive and durable restoration program meant to restore the communities of the basin. As to the concern regarding tribal rights, there is nothing in the Klamath Agreements that would "terminate" the rights of any non-signatory Tribe. The United States believes the Klamath Agreements are consistent with any federal trust obligations to Tribes in the Basin and provide the best hope for restoration of thriving fisheries in the Basin. Our analysis of the fishery with dams removed and under the management of the KBRA shows significant improvement for many fish populations, such as steelhead, coho salmon, and redband trout, and increases in the annual production of Chinook salmon by about 80 percent in the Klamath Basin. Improvements in fish production would result from restoring fish access to the Upper Basin through dam removal, including access to critical cool-water streams, and from actively restoring spawning and rearing habitats. Thus, we respectfully disagree with those who point to comparisons of flow rates in the KBRA to current or recent conditions as a reason to challenge the sufficiency of the Klamath Agreements. Our view is that a comparison of order flower in the is that a comparison of only flows in the river tells an incomplete story. You must also account for the habitat improvements and habitat expansion that will occur as a result of both dam removal and restoration actions. Chinook salmon are critically important for commercial, sport, and tribal fisheries in the river and the ocean and are a cultural, subsistence, and economic mainstay of the Basin's Tribes. After much study and evaluation, the scientific record shows that the Klamath Agreements provide significant benefits to the resources of the Tribes in the Basin, a conclusion validated by the support of most of the affected Tribes.

We have also heard the concerns of those around the reservoirs whose properties and businesses would be most directly impacted by removal. On this point, we believe that if the Klamath Agreements are ultimately authorized, consideration should be given to establishing a fund to be managed by representatives in local communities to recompense land owners for any lost value that occurs as a result of dam removal. The size and scope of this fund can be worked out with the interested parties at the appropriate time in the legislative process. This would however, increase the costs of implementing the settlement and create an additional burden

on the general taxpayer.

2013 Operations and Biological Opinion

This year, the Klamath Falls area reported the second driest January through March period on record and precipitation has been below average throughout the Klamath Basin. As a result, in April the Klamath Basin Area Office implemented a 10-day delay for the startup of the irrigation season to ensure that the water elevation in Upper Klamath Lake would rise above critical elevations identified in the 2008 U.S. Fish and Wildlife Service (USFWS) BO. As a result of the dry hydrologic conditions, Reclamation is anticipating that full water user demand will not be met in 2013 consistent with eight of the last ten years. Reclamation is working with the Klamath Water and Power Agency (KWAPA), which administers the Water User Mitigation Program, to address potential water shortages to the extent possible given existing authorities and available appropriations. Shortages of approximately 75,000–100,000 acre-feet or more are currently expected, depending on weather conditions and the associated irrigation demand during the 2013 irrigation season. Additionally, it is possible that little or no water will be available for the Lower Klamath National Wildlife Refuge.

Over the past two years, Reclamation, NOAA Fisheries and USFWS worked together to develop an new water management approach for Reclamation's Klamath Project that has the flexibility to optimize the benefits of available water for federally-listed species while providing more certainty related to irrigation deliveries to the Project. Late last month, NOAA Fisheries and USFWS jointly issued an integrated Endangered Species Act (ESA) biological opinion on Reclamation's new water management strategy for the Klamath Project. They concluded that this approach adequately protects the federally-listed fish in the lake and river under the ESA for the next 10 years and is not likely to jeopardize their continued existence or to re-

sult in the destruction or adverse modification of their critical habitat. This new water management process relies upon real-time hydrologic conditions in the Upper Klamath Basin, provides more flexibility, ensures more water certainty for farmers (even in drought years), and includes a process where a team of agency and tribal technical staff work together to track real-time ecological conditions in Upper Klamath Lake and the Klamath River to support adaptive management changes that would provide additional conservation benefits to listed fish. Such innovation is absolutely critical, especially with the limited water supplies of the Upper Klamath Basin.

Just like the Tribes, farmers and fishermen who have found a new working paradigm under the Klamath Agreements, agency staffs have also discovered a better way. Building off a shared goal of enhanced inter-agency efforts to develop a proposed action that protects listed fish while also providing more certainty of water supply for the Klamath Project farmers, agency staff built effective relationships which enabled a collaborative process that produced tangible results. An early decision by the Regional Directors to bring the ESA analyses from each agency together into one document, instead of two biological opinions, encouraged higher levels of coordination among the agencies than ever before and served to ensure that terms and conditions for the Project from one fishery resource agency did not conflict with those from the other.

While Reclamation's new water management system is more flexible, provides more certainty for irrigation deliveries, and adequately protects endangered species as required by the ESA, I do not believe any biological opinion is the long-term and comprehensive solution for the Klamath Basin. NOAA Fisheries and the USFWS have concluded that Reclamation's new water approach is protective enough for listed fish; the ESA's "no jeopardy" conservation standard means that Reclamation's Klamath Project will not stand in the way of recovery. However, it does not mean that the new approach will recover listed fish or fully address tribal interests without other recovery actions occurring throughout the Basin that go well beyond the discretion of Reclamation. The recovery and restoration of listed fish species in the Klamath Basin requires a basin-wide solution that is built, supported, and undertaken by those that live and work in the Basin. While ESA biological opinions are fundamental to ensuring that federal actions protect listed species, Congress did not intend these consultations to be the sole tool for recovery. Building a better and holistic solution that will advance recovery of listed fish while also building sustainable fisheries for fishing and tribal communities, as well as creating sustainable agricultural communities, requires a more comprehensive solution with Basin support. The Klamath Agreements hold great promise for being such a solution.

Adjudication

In March of this year, the Oregon Water Resources Department issued its Final Order of Determination (FOD) in the Klamath Basin Adjudication. A number of federal entities received water rights under the FOD including the National Park Service, USFWS, Forest Service, Reclamation, and the Bureau of Indian Affairs. The most senior rights in the basin were jointly awarded to the Klamath Tribes and the United States to support tribal trust resources. Although not as senior as the tribal water right, the Klamath Project was also awarded a relatively senior water right. Because of the current water year, and our obligations to the tribes, water users, and refuges, we are exercising these water rights. Because of the current water year, and to project the tribal, refuge, and irrigation interests that rely on our water rights, we are exercising these rights.

To be clear, we believe the impacts of regulation of water rights can be addressed through the KBRA or similar negotiated agreements. For parties to the KBRA, issues surrounding the enforcement of water rights have largely been resolved through agreements among the parties that are included in the KBRA. Once again, the goal of the parties has been to provide increased certainty and overall sustainability for all parties to the agreements. There are still a number of water rights holders in the basin, however, that have not settled their disputes regarding either the tribal or Project water rights. With the assistance of the Governor, we are continuing to reach out to those water rights holders in an effort to secure a resolution of these longstanding issues and are hopeful that a solution can be had.

Conclusion

This concludes my written statement.

APPENDIX

SUMMARY OF KEY FINDINGS REGARDING KLAMATH RIVER DAM REMOVAL AND IMPLEMENTATION OF ${\rm KBRa}^3$

Dam removal, sediment processes, and impacts on flooding

- The most probable cost for full dam removal, which is the preferred alternative identified in the FEIS, is about \$292 million and is under the State cost cap of \$450 million (1 percent and 99 percent probability for removal costs range from \$238M to \$493M, in 2020 dollars).
- Dam removal would mobilize between one-third and two-thirds of the 13 million cubic yards of sediment behind the dams. The majority of the sediment is fine-grained material that would be readily transported to the Pacific Ocean 2 to 3 months following the drawdown of reservoirs in the winter of 2020.
- Extensive chemical testing of sediments behind the dams shows that human health would not be at risk due to contact with these sediments.
- Dam removal would immediately restore more natural water temperatures and dissolved oxygen concentrations important to downstream fish and fisheries.
- Dam removal would immediately eliminate toxic algae produced in the reservoirs; toxic algae create health concerns in the reservoirs and downstream in the Klamath River for people, fish, and wildlife.
- Long-term flood risks would increase slightly for about 18 miles downstream of
 the location of Iron Gate Dam. Analyses show that some additional structures
 currently outside the 100-year flood plain would be located in a new 100-year
 floodplain following dam removal. If dam removal were to proceed, the Dam Removal Entity would work with willing landowners to reduce or eliminate flood
 risk for these additional structures.

Impacts of dam removal and KBRA on fish and fisheries

- The timing of reservoir drawdown in a single winter season was designed to minimize negative impacts of released sediments on sensitive fish species, particularly federally listed Coho salmon.
- Basin-wide adult and juvenile salmon mortality is expected to be less than 10
 percent in the year following dam removal, even under worst-case flow conditions.
- In the long run, opening up fish passage to the Upper Klamath Basin through dam removal and restoring aquatic habitat under the KBRA would increase salmon and steelhead production. For example, annual Chinook salmon production would increase about 80 percent (ranging from 40 to 190 percent among modeled years).
- The increased production would increase Chinook salmon harvest about 50 percent for commercial and sport ocean fisheries, as well as for in-river tribal fisheries.
- Coho salmon would be expected to access 68 miles of stream habitat upstream
 of Iron Gate Dam, including 23 miles currently inundated by the reservoirs,
 thereby advancing the recovery of this federally listed species.
- Steelhead trout would be able to migrate to historical habitat above Iron Gate Dam, including up to 420 additional miles of stream, and thereby advancing the most prized game fishery in the Basin.
- Dam removal would also expand the distribution and number of trophy redband rainbow trout, another prized game fishery, throughout the hydroelectric reach of the river.
- Dam removal would totally eliminate a large non-native game fishery on the reservoirs, which includes bass and yellow perch.

Climate change impacts on water temperatures, fish, and flows

- Over a period of 50 years (2012 to 2061), climate change models show that water temperatures in the Klamath Basin would increase 1 to 3 degrees C (2 to 5 degrees F) and earlier snow melt would decrease summer flows.
- Removing the Klamath River dams would restore salmon access to critical coolwater habitat for spawning and rearing in the Upper Basin, thereby helping to buffer against effects of climate change.

³ This document is intended to serve as a summary and, as such, numbers cited herein represent averages and/or aggregates which may include associated levels of uncertainty that are explained fully in the contributing studies. All of the scientific studies, which include the complete scientific analysis and associated uncertainties, are available at klamathrestoration.gov.

- · Removing the dams would immediately improve late summer and fall water temperatures for salmon below this reach, thereby buffering against future impacts of climate change.
- Decreased summer flows will worsen already strained water supplies needed to support farms, refuges, and fisheries.

Impacts on jobs and regional economies

- Dam removal and full KBRA implementation would create a number of full time, part time, and temporary jobs:
 - -Hundreds of commercial fishing jobs in five management areas from northern California to central Oregon; -1,400 jobs during the year of dam removal;

-300 annual average jobs over 15 years for KBRA programs; -70 to 695 farm jobs in drought years depending on drought intensity.

Dam removal would also result in the loss of about 70 jobs associated with the operation and maintenance of the dams and changes in the recreational industry (reductions in whitewater rafting and reservoir fishing/boating). Tribal and Cultural Impacts:

- All of the native people residing in the Klamath River environment have spiritual beliefs and traditional practices that are inseparable from the River and surrounding homeland environments. Dam removal and implementation of the KBRA would help address tribal trust and social issues identified by the Klamath River Basin Tribes as detrimental to their traditional way of life. Dam removal would have beneficial effects on water quality, fisheries, terrestrial resources, and traditional cultural practices. Dam removal would enhance the ability of Indian tribes in the Klamath River Basin to conduct traditional ceremonies and other traditional practices.
- Dam removal and reservoir drawdown could affect Native American cultural resources sites reported to be currently submerged beneath the reservoirs. Human remains may be associated with these sites. Plans to identify cultural resources and to avoid, minimize, or mitigate impacts to those resources would be developed in consultations with the appropriate State Historic Preservation Office, Fribes, and other Native American organizations.
- The removal of the dams and associated facilities, all part of the Klamath Hydroelectric Project, would result in effects to those historic properties. Plans to avoid, minimize, or mitigate effects to historic era properties would be developed in consultation with the appropriate State Historic Preservation Office and other historic preservation entities.

Hydropower, Green House Gas emissions, and electricity customers:

- Dam removal would eliminate about 82 megawatts of hydropower in 2020 (enough power for 70,000 homes), which would be made up by a mix of other energy sources.
- Following dam removal in 2020, approximately 526,000 metric tons of carbon dioxide equivalents (MTCO2e) per year would be emitted to the atmosphere from replacement power assuming PacifiCorp's current resource generation mix. This number would decrease to approximately 451,000 MTCO2e per year assuming PacifiCorp met California's goal for replacement power sources.
- A 2010 analysis by PacifiCorp prepared for the Oregon and California PUCs demonstrates that dam removal as laid out in KHSA would be less costly for their customers (about \$251 million), and less risky, as compared to likely customer costs associated with relicensing the four dams, which would be in excess of \$460 million over a 40-year license term.

Wildlife refuges

- Dam removal and KBRA implementation would allow the refuges associated with Reclamation's Klamath Project to have greater certainty about water deliveries with 14 newly established allocations, even during drought years, and increased flexibility in the timing of water deliveries.

 • Full refuge needs would likely be met in 88 percent of years; currently refuge
- needs for water are met in less than 10 percent of the years. These NWRs wetlands are critical components of the Pacific Flyway, the corridor for migrating birds from as far away as Alaska and Mexico.
- The additional water deliveries-and the increased predictability of those deliveries-would mean that greater numbers of migratory waterfowl, non-game water birds, wintering bald eagles, and other sensitive species would be supported by the refuges and would increase recreational wildlife viewing.

• The estimated increase of over 190,000 waterfowl in the fall would result in an additional 3,600 hunting trips annually.

Real Estate

- Upstream of Iron Gate Dam studies identified 668 parcels near Copco 1 and Iron Gate reservoirs which either have water frontage, water access, or views of reservoirs. Of these 668 parcels, 127 include single family homes. These 668 land parcels would decline in value if dams were removed and reservoirs drained.
- Land values of parcels downstream of Iron Gate Dam, with river views and river access, may increase in the long-term because of restoration of the river, including improved water quality and more robust salmon and steelhead runs.

Flowe

- The differences in monthly average flows between dams remaining in place and dam removal options are relatively small; however, without the dams, pulse flows and other seasonal fluctuations beneficial to fish would occur more often.
- The absolute minimum flow target under the KBRA would be approximately 800 cubic feet per second (cfs) at the location of Iron Gate Dam. In most months and years, however, flows would be much greater. In extreme drought years, flows could drop slightly below this target, but never drop below 700 cfs owing to the water-management provisions in the KBRA.

The CHAIRMAN. Very good. Thank you, Mr. Connor.

For all of you we'll put your full written statement into the record. Mr. Connor was trying to set a land speed record for trying to summarize. I appreciate that. We thank you very much, Commissioner.

We've got Richard Whitman here who has been doing important work for Governor Kitzhaber on this. We welcome you, Mr. Whitman.

STATEMENT OF RICHARD M. WHITMAN, POLICY DIRECTOR, OREGON GOVERNOR JOHN KITZHABER'S NATURAL RESOURCES OFFICE, PORTLAND, OR

Mr. Whitman. Thank you, Chairman Wyden and Ranking Member Murkowski. Appreciate the opportunity to participate in this very important round table this morning on one of the most vexing resource challenges we have in this country concerning the use of water. Challenges that have created no winners only conflict, only anger, only instability.

It's a top priority of the State of Oregon and Governor Kitzhaber to resolve these vexing issues. A hallmark of the Governor's approach to these issues is very much echoed by your approach on this committee of the importance of taking collaborative approaches where everybody comes to the table, everybody shares in the success and the sacrifice necessary to get a long term, stable solution. So appreciate your leadership in bringing us all together today.

There are 4 basic competing demands for water in the Klamath Basin.

We have the downstream fisheries of importance to both States and downstream tribes and fishing communities on the coast.

We have the upstream fisheries in Upper Klamath Lake of importance in particular to the Klamath tribes.

We have the Klamath irrigation project.

Then we have the Upper Basin Water Users, largely a ranching community above Upper Klamath Lake.

In the past when we've had shortages on a regular basis the burden of those shortages has been borne unevenly between these different interests.

In 2001, we had the Klamath irrigation project take the brunt of the shortage.

In 2002, with the fish kill on the lower portion of the river, we had the downstream fisheries take the brunt of the shortage.

At least arguably in many years with shortages we've had the Klamath tribes take the brunt in terms of being at the end of the line in terms of water availability in the upper portion of the Basin.

With the completion of the water right adjudication in the State of Oregon we are now shifting to another allocation of burdens in terms of water shortages in the Basin. That's a very abrupt shift that's happening very dramatically this year both because of the completion of the adjudication and the historic levels of drought that are occurring in the Upper Basin. The burden is shifting for the first time to the ranching community in the Upper Basin. We are looking at a situation where it's very possible that we'll have a near complete shutdown of the ranching, the irrigation of the ranching community in that part of the Basin with very severe economic consequences to that portion of the Basin.

We have to stop lurching from this set of complete winners and complete losers from one side to the other. Get to a solution where the burden of over allocation of water resources in this Basin is shared in some more equitable way between the parties. In reading the testimony, the submitted testimony, of the witnesses it's remarkable almost every witness talks about the need for a more equitable sharing of water resources. I think we're very encouraged by that consistency in the testimony today.

Governor Kitzhaber has made resolution of Upper Basin water issues a top priority. Over the last 6 weeks we've been involved in formal discussions with a number of the key parties in the Upper Basin. We're very encouraged by those discussions as well as the testimony today. We believe there is a solution space in the Upper Basin where people can come together and share the shortages, share the sacrifice.

We'd ask 2 things of you, Chairman Wyden and this committee. First of all, to work with the parties here to develop legislation that implements key provisions of the agreements that have been reached between these parties and that allows us to share the burden more equitably.

Second, legislation that gives us additional tools to improve the resiliency of this Basin to withstand drought that we are inevitably going to face in the future.

Secondly, we need the ongoing close engagement of key Congressional offices in this effort to bring the parties together so that they understand that this is the time to come to the table and reach a resolution here in the Klamath Basin.

With that, I'll conclude my testimony. Thank you for the opportunity.

[The prepared statement of Mr. Whitman follows:]

PREPARED STATEMENT OF RICHARD M. WHITMAN POLICY DIRECTOR, OREGON GOVERNOR JOHN ITCHIER'S NATURAL RESOURCES OFFICE, PORTLAND, OR

Chairman Wyden, Ranking Member Murkowski, and members of the committee, my name is Richard Whitman, and I am the Policy Director for Oregon Governor John Kitzhaber's Natural Resources Office. I am here today to testify on behalf of Governor Kitzhaber, and to convey the urgency of the need for Congressional action to help the interests in the Klamath River Basin resolve the repeated crises brought

on by many decades of poor management decisions.

None of the interests before you today, including the states, the federal government and the people of the basin, are blameless for the situation we now face—competing demands for over-allocated water resources. The question before you today, however, is not how we got to where we are, but how we transform the management of this river basin so that it sustains all facets of our communities, our economy and our environment. If we do not act soon, serious harm is going to occur in many parts of the basin, from the upper basin off-project irrigators represented on this panel, to the lower Klamath wildlife refuges, and downstream to the Tribes and other fishing interests that depend on water to support Coho salmon, Chinook salmon and other fisheries.

There is a way to move this basin away from conflict and crisis to stability. That way is outlined by the Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement Agreement (KHSA). The State of Oregon is a signatory to the KBRA and the KHSA, and Governor Kitzhaber reaffirmed his and Oregon's support of those agreements last December in agreeing to extend and amend the KBRA. Oregon stands ready to work with Congress and all basin interests to craft legislation that moves this region away from the cycle of conflict we have seen over the past twelve years.

Oregon's Commitments and Interests

Oregon's support for these agreements is not merely a matter of signing a piece of paper. Oregon ratepayers have already contributed over \$50 million to implement the KHSA, through a surcharge on electric rates approved by the Oregon legislature and the Oregon Public Utilities Commission. Oregon also has invested millions of dollars in actions to improve water quality and restore habitat in the upper Klamath River Basin. Additional investments have been made by other governmental and non-governmental actors. Oregon is committed to continued investment in the Klamath basin, as it works with irrigators, the Klamath Tribes, local governments and industry to restore this area to health.

We are already seeing improvements as a result of the KBRA, KHSA and related actions. Water quality is starting to improve in the upper basin. Levels of a key pollutant, phosphorus, are declining as a result of the restoration of marshes and riparian areas. Stream flows are increasing above the lake as well, albeit slowly. Collaborative actions have been undertaken to stabilize the threatened and endangered bull trout and sucker populations in the upper basin, with significant increases in bull trout numbers in local streams. Future actions contained in the KBRA are expected

to move these populations toward recovery.

Oregon's interests come down to assuring that the farming and ranching communities dependent on water resources in the Klamath River Basin are afforded reasonable stability and certainty on which they can base decisions, that the Klamath Tribes have a land base restored to them along with water quality and quantity needed for healthy fisheries, and that downstream fisheries are also healthy. Oregon is still very much a farm state. Agriculture is Oregon's number two industry, and agriculture in Klamath County is an important part of that success. Klamath County is ranked 7th out of 36 counties in Oregon for the value of agricultural production (\$150 million in 2007 and \$284 million in 2011, with half in crops and half in livestock sales). Farming within the Klamath Irrigation Project generates about half of the value of agricultural production in the region, and approximately 13% of the employment is in agriculture and agricultural processing.

Oregon also cares deeply about the success of our Indian Tribes. Governor Kitzhaber signed an executive order to assure that state government works with Oregon Tribes on a government to government basis, and that order was subsequently enacted as legislation by the Oregon Legislature. Oregon has worked closely with the Klamath Tribes to improve water quality above Upper Klamath Lake, and the Oregon Watershed Enhancement Board has recently designated this area for its Strategic Investment Program. Oregon strongly supports the Klamath Tribes efforts to reacquire lands within the former Klamath Indian reservation, as it has sup-

ported other tribal efforts to acquire a land base.

Klamath River Basin Water Rights Adjudication

Many members of the committee likely have read or heard that irrigators in the upper Klamath River basin are having their water shut off this year as a result of the severe drought conditions in this part of the state. I want to take this opportunity to describe for you what is going on, and how it relates to our current predicament.

Up until this year, when water was short in the Klamath basin, the burden of that shortage fell largely on two sets of interests—the Klamath Tribes and the Klamath Irrigation Project. Oregon, like other western states, regulates water use by the prior appropriation doctrine: "first in time—first in right." But in a basin where pre-water code water rights, including those of both the Klamath Irrigation Project and the Klamath Tribes, had not been determined, those water rights were not and could not be protected under state law. As a result, water users in the upper part of the basin were able to use water without limitation, and shortages downstream of those uses—in tributaries to Upper Klamath Lake and in the lake itself occurred regardless of seniority.

itself, occurred regardless of seniority.

The unregulated use of water in the basin ended this year, with the completion of the administrative phase of the Klamath Water Rights Adjudication. Now that water rights are quantified and confirmed, the state is required to protect them by regulating water use under the prior appropriation system. Last week, seven irrigation districts with a priority date of 1905, and the Klamath Tribes with the earliest priority date in the basin, among others, made "calls" for water to the state—requesting regulation to protect their senior water rights. Given current weather conditions in the basin, and the lack of snowfall this past winter, a large portion of the water right holders above Upper Klamath Lake may be required to stop irrigating.

Most of the water use above Upper Klamath Lake is to irrigate pasture and grow hay for cattle. Many of these lands are used as summer pasture by operations that move livestock between California and Oregon. It is estimated that there are approximately 70,000 head of cattle on the lands above the lake. While ranchers were able to irrigate into early June, fields will begin to dry out quickly as we move to July, and ranchers likely will have to reduce herd sizes by selling or moving cattle as a result. As drought conditions are widespread in the west, opportunities to move cattle are very limited and hay prices are high.

Another set of interests that will be affected by water regulation this year are the wildlife refuges managed by the U.S. Fish and Wildlife Service. These refuges have priority dates for their water rights of 1925 to 1985, well-after the Klamath Irrigation Project. As a result, the refuges are unlikely to receive much, if any, water (and this will be true in most drought years absent agreements to the contrary). These refuges seasonally support a large proportion of the migratory waterfowl and associated species in the Pacific Flyway, as well as significant wildlife-oriented recreation and tourism.

Other interests affected by water regulation this year are likely to include Park Service facilities as well as Forest Service campgrounds and another Bureau of Reclamation facility that supplies water to the Medford, Oregon area. While the effects on the Medford area are expected to be minor this year, disruption of past patterns is likely to extend beyond ranchers.

You may hear from some that the State of Oregon has "given away" water to federal and other interests in quantities well-beyond amounts that have ever been used. That allegation is simply not true, as demonstrated in the charts provided at the end of my testimony. The rights confirmed for the Klamath Tribes are rights that were reserved by the Tribes as part of their treaty with the United States. The priority dates of those rights were determined based on federal court decisions, and the quantities of those rights reflect legal standards set by federal court decisions and the evidence presented by the parties in the adjudication, quantities that were reduced substantially from what was claimed, and that are below the median stream flows in the Upper Basin.

Some parties argue that their rights are being taken away before they have had their day in court. You need to know that the Klamath Adjudication afforded all participants a full opportunity to make their cases over a 38-year period. The claims and contests were heard first by an independent hearings officer, who then made a recommendation to an independent adjudicator. Yes, there is an opportunity for all parties to file exceptions in state circuit court, with yet another round of independent review. But under Oregon law, the rights confirmed by the adjudicator must now be enforced unless the circuit court grants a stay. A stay request is currently pending in state court, and is likely to be decided within the next month. All in all, it will likely be a number of years more before we all know the final results

of the adjudication. For now, though, the burden of uncertainty has shifted to the

Upper Basin.

One set of interests that has elected to forgo challenges to the Klamath Tribes water rights is the irrigation districts within the Klamath Irrigation Project. Under the KBRA, and corresponding agreements in the Klamath Water Rights Adjudication, the districts have agreed not to contest the Klamath Tribes water rights, in return for agreement by the Tribes that they will not call water rights from Upper Klamath Lake and the Klamath River below the lake that have a priority date earlier than August 9, 1908—leaving the irrigation districts free from a tribal call for regulation. In return, the districts have agreed to support the KBRA and related provisions that limit their water demand to levels that are protective of fisheries using the lake.

This form of agreement between water users is the basic model of the way forward in resolving water use disputes in the Upper Klamath Basin. The KBRA includes similar provisions allowing "off-project" water users assurances if they agree to participate in efforts to reduce water use by 30,000 acre-feet (by purchasing rights from willing sellers), and by participating in riparian restoration efforts that

will improve water quality.

With the completion of the adjudication in March, the Oregon Governor's office was asked to begin a renewed effort to bring the upper basin parties together to achieve a settlement. We are working actively to bring the key parties together to reach agreement on water use and riparian area restoration. Such an agreement is the key to avoiding the hard, black or white, winner-take-all contests that we now see. The next few months will be critical in this effort. We need the good faith and assistance of all parts of the farming and ranching communities, the Klamath Tribes, the other KBRA parties, local governments, and the multiple federal agencies involved in this complex system. We also need the encouragement and assistance of Congress. Enacting legislation that allows the key elements of the KBRA and KHSA to move forward is the only clear way to avoid years of escalating conflict and costs. Failure to act will result in major losses for many parts of the basin, and only escalate and inflate the ultimate price of reversing years of poor management decisions in the Klamath.

The CHAIRMAN. That's very constructive, Mr. Whitman. The Governor has talked to me about this on a number of occasions. He is very passionate about the idea.

A, this is the time.

B, it is going to take a unique and collaborative effort to do it. So we will be working very closely with the Governor and you on this

We welcome Mr. John Laird, Secretary for Natural Resources in California in Sacramento.

Welcome.

STATEMENT JOHN LAIRD, CALIFORNIA SECRETARY FOR NAT-URAL RESOURCES, CALIFORNIA NATURAL RESOURCES AGENCY, SACRAMENTO, CA

Mr. LAIRD. Thank you very much. I really appreciate the opportunity to present today, Chairman Wyden, Ranking Member Murkowski. I'm here on behalf of Governor Jerry Brown to state the State of California's continued and firm support of both the agreements that you have. As somebody that is a recovering State legislator, I really appreciate the precedent of having people read their statements into the record.

Hopefully shortly——

The CHAIRMAN. You've probably dealt with a few of these kind of non-controversial piece of cake issues, huh?

Mr. LAIRD. Exactly. But nobody appears to about to be arrested. So it is very different from California hearings.

So let me make a few points in summary which is California has been taking a real run at a number of contentious problems in a real collaborative stakeholder driven way.

We've negotiated with Nevada to back off from the brink of going

away from our Tahoe Compact for lake clarity.

We've negotiated a strong network of marine protected areas and did it with involving tribes so that historic takes were involved in

the concept of protected areas.

We have the mother of all problems, the Sacramento/San Joaquin River delta issues. We're working really hard to involve stakeholders and do it in a way that both restores the ecosystem and provides water reliability. We're doing a stakeholder driven process to site desert renewables to both use the best sites, do mitigation in a durable way and work with local governments. The Klamath is exactly in that spirit.

The stakeholder driven process where over 40 stakeholders came together and it was a give and take. There were not winners and losers. Everybody got something. But everybody gave something.

That is historic in the Klamath Basin.

That is why we signed on to the agreements in 2010.

That is why we re-signed on for the extension.

The accomplishment is really remarkable given the history. I think we hear in meetings from people that also are not enthusiastic about the agreements and have their own solution, but usually there's no one else they bring with them in offering their solution. The significance is the give and take that resulted in the Klamath Agreements.

The support is broad based in terms of resolving the years of conflict. It improves water reliability, particularly given the issue of drought. We in California have just measured a record low in our Sierra snowpack heading into this water season. We did not have, in some parts of the State, which is negligible reported rainfall or snowfall after the first of the year, unprecedented in the history of

That obviously extends to the Klamath Basin in the drought impacts. So what it does is it makes the point for these agreements. There are about to be some things that are going to happen in the Klamath Basin that really will be to the detriment of some stakeholders there. They would not be happening if these agreements were in place. That is very significant.

So California requests the support, your support, for legislation implementing these agreements and appreciate your leadership.

But I want to add one thing that's not in my statement that's responsive to a comment you made in your opening statement, Mr. Chairman. In short, California is good for its financial commitment. We are committed.

In a little more detail. California, just as with Oregon, our Public Utilities Commission did a rate surcharge on all our rate payers that are in the Klamath Basin and in the Klamath watershed. Obviously there are many more rate payers on the Oregon side. So we did a similar rate surcharge even though it doesn't raise anywhere near as much as is raised on the Oregon side.

We do have a bond that contains the remaining money here. That bond was postponed because just frankly in the great reces-

sion the voters were not disposed to spend money. One of the challenges the Governor undertook is he walked in the door January 2011 with a \$26 billion deficit in the State budget.

He is signing a budget this week that is completely in balance with surplus and presumed surplus in the future years. It was very hard sledding. Because as somebody who was chair of a legislative budget committee for 4 years, the budgets in the last 10 years might have been legally balanced, but were not structurally bal-

So the point is that this isn't required until 2020. If for any reason the bond doesn't pass we will be good for it in another way. We work on that. We know there's lots of fluidity in the cost estimates and to issues that were more forward to 2020.

But we hope that these agreements are implemented. We hope we can work with the stakeholders on how exactly to make good that commitment in the event that we hope is an unlikely event that the bond doesn't pass.

So I just wanted to be responsive to what I presumed might be a question when you got to the question period. I look forward to the discussion. I'm grateful for having been able to participate here today.

[The prepared statement of Mr. Laird follows:]

PREPARED STATEMENT OF JOHN LAIRD, CALIFORNIA SECRETARY FOR NATURAL RESOURCES, CALIFORNIA NATURAL RESOURCES AGENCY, SACRAMENTO, CA

Chairman Wyden, Ranking Member Murkowski, and members of the committee, I am California Secretary for Natural Resources John Laird. I am here on behalf of California Governor Jerry Brown to express the State of California's continued and firm support of both the Klamath Hydroelectric Settlement Agreement and the

Klamath Basin Restoration Agreement.

In California, Governor Brown is committed to tackling some of the most difficult issues of our time. California is a leader on climate change and marine protectionwhere we established a globally-significant network of marine protected areas while still protecting tribal interests in historic gathering. We forged an agreement to re-solve differences between the states of California and Nevada in protecting the clarity of Lake Tahoe, we have released a draft of a comprehensive plan to restore habitat and establish water supply reliability in the Delta, and are working on a landmark program for siting desert renewables.

Part of that determination is reflected in California's continued commitment to the Klamath agreements. More than 40 coalition members representing all of the major interests in the Basin came together and spent years negotiating these complex agreements. California signed onto these agreements in 2010 and signed again, along with all of the other parties, last year to extend them.

The Klamath Agreements represent the first stakeholder-driven compromise ever

aimed at the success and health of this basin from, literally, its headwaters in Oregon to the Pacific Ocean in California. They reflect an enormously diverse community that has agreed to a common future for the Klamath Basin for their own sta-

bility, recovery, and future economic prosperity.

This accomplishment is even more remarkable because of the history. In the early 2000s, when many of the very same individuals and stakeholders were locked in courtroom battles, bouncing between rotating crises for fisherman, Tribes, farmers, and conservationists, most observers predicted compromise would never occur. It did

in the form of the Klamath Agreements.

Every party receives some benefit and more importantly every party is carrying some burden. There are those at this hearing who will tell you that these agreements are not good enough. They may even tell you that they have an alternative. But if you ask them whether the same diverse stakeholders of the Basin will sign on to their alternative like they have signed onto the Klamath Agreements, they don't have an answer.

In the Upper Klamath Basin, irrigation provides over \$300 million annually in direct revenues, an additional \$300 million in indirect revenues, and provides 4,500 jobs. The commercial salmon fishery provides an additional \$150 million into the Basin. In 2006, Congress had to provide more than \$60 million in disaster relief to commercial fishing families when the Klamath salmon stocks were closed to commercial fishing, resulting in over \$100 million in losses. The Klamath Agreements reduce water supply uncertainty for all of the Basin interests that rely on Klamath water. The agreements provide substantial economic benefits to regions that have been impacted by these dams for many years. An analysis under the National Environmental Policy Act indicated the implementation of the agreements would generate 4,600 jobs regionally and protect the \$750 million farming and fishing industries that are still at risk. Support for these agreements and legislation implementing them is support for a broad-based solution that will resolve years of conflict, it is support for one of the single most beneficial actions we can take to restore salmon in the United States and set the Klamath Basin on a stronger economic path

The agreements also improve water reliability. They provide for a drought planning mechanism to deal with low water years and prevent abrupt reductions and stop gap measures like additional releases by the United States Bureau of Reclamation from the Trinity River Division to augment flows in the Lower Klamath.

Improving water reliability and restoring habitat are key goals of our Administration in California and these goals are reflected in our continued support of the Klamath agreements. The State of California requests your support for legislation implementing these historic agreements. We thank you for your leadership in working with these diverse stakeholders to make the Klamath Basin a better place.

The CHAIRMAN. Thank you very much, Mr. Laird, for bringing some more good news. We've been at it about 40 minutes or so and the fact that the utilities are trying to step up and provide some rate relief to some of these farmers that are hard hit, you're saying that California is going to be good for its commitment on the financing side.

I can't tell everybody to take the rest of the day off, but we're

making some progress.

Mr. LAIRD. I can't do 250 million every 40 minutes. I'll just do it in the first increment.

The CHAIRMAN. I got the drift on that.

[Laughter.]

The Chairman. But certainly that is encouraging. Very much appreciate you and Governor Brown, who I know is spending a lot of time trying to figure out a way to show fiscal discipline and still solve some problems.
Mr. LAIRD. Thank you.

The CHAIRMAN. We appreciate it.

Our next witness is going to be the Honorable Don Gentry, Chairman of the Klamath Tribe. As we begin, Chairman Gentry, I want people to know how much I appreciate the good—will that you and so many in the Tribe have been showing. Again and again in these discussions you've said we want to find a way to resolve this. We are going to work in good faith. I so appreciate the constructive tone that the Tribe has been taking.

So please proceed with your comments.

STATEMENT OF DONALD C. GENTRY, CHAIRMAN OF THE KLAMATH TRIBES OF OREGON, CHILOQUIN, OR

Mr. Gentry. Thanks so much, Chairman Wyden and Ranking Member Murkowski.

The CHAIRMAN. I have a feeling, Mr. Gentry, your—yes, get your

Mr. Gentry. There we go.

The CHAIRMAN. There you are.

Mr. GENTRY. Thanks so much, Chairman Wyden and Ranking Member Murkowski. As you know I'm Don Gentry, Chairman of the Klamath Tribes. I thank you so much for holding this hearing today to help us better understand the serious and complexity of the issues that are facing us in the Basin.

I represent the Klamath Tribes, the Klamath, the Modoc and the Yahooskin Band of Snake Indian River people. Our time immemorial water right in the Klamath Basin supports our inherent right

to hunt, fish, trap and gather.

In an 1864 treaty with our people, the United States promised to honor our treaty rights. It supports our right to hunt, fish, trap and gather. Our ancestors ensured these rights were reserved to us

forever in the treaty.

In addition to providing for subsistence the treaty resources are central to exercising our cultural and spiritual practices. Exercising our rights to these resources, like our endangered c'waam or Lost River Suckers is critical to the overall health, social health and well being of our people. Without the resources like our endangered c'waam, we simply can't live as the people we believe Creator intended us. This is why we have such a deeply felt responsibility to protect our treaty resources for our people and the future genera-

Decades of failed State and Federal policies of over promised water across a diverse set of groups in the Basin and few decades of conflict. These failed water polices have acerbated treaty resources and brought the remnant of our treaty protected fisheries to the brink of collapse. Make no mistake this is a breach of the United States treaty based trust responsibility to us.

We take no pleasure in the fact that water must sometimes be cutoff to our neighbors to satisfy the United States obligations. Even some of our own Klamath tribal families have had to make

the sacrifice.

After years of contentious litigation many in the Basin realized that a collaborative approach was necessary. Our negotiations led to the delicate balance of needs and compromise within the Klamath Basin Restoration Agreement. Unfortunately conflicts continue with those who chose not to become KBRA parties.

We are in a State water adjudication process where the tribe's senior time immemorial water rights were recently reaffirmed and recognized as enforceable by the State of Oregon. This litigious process is not our preferred path forward. It is in stark contrast to

the collaborative approach of the KBRA.

The door remains open however for those tied up in litigation to seek a settlement within the framework of the KBRA. Congress must act to implement the KBRA and KHSA. Congressional inaction will guarantee continuing conflict, economic calamity and disasters that have already cost the Federal Government 170 million dollars in emergency relief.

None of the KBRA parties created the situation that we're dealing with in the Basin. But we have worked hard to develop a consensus based, locally solution. Now the onus is on Congress to act.

Chairman Wyden, I thank you and committee for holding this hearing. I'm happy to answer any questions you may have.

The prepared statement of Mr. Gentry follows:

Prepared Statement of Donald C. Gentry, Chairman of the Klamath Tribes of Oregon, Chiloquin, OR

Chairman Wyden, Ranking Member Murkowski, and members of the Committee, my name is Don Gentry and I am the Chairman of the Klamath Tribes. I want to thank the Committee and Chairman Wyden in particular, for holding this Hearing to better understand the serious water-related issues we are grappling with in the Klamath River Basin (Basin). As Chairman of the Klamath Tribes, it is my honor to convey to this Committee the views of the Klamath Tribes on these important matters. I am also joined today by Jeff Mitchell, a former Klamath Tribal Chairman, who has been the Tribes' lead negotiator on the Klamath Basin Restoration Agreement

I represent the people of the Klamath Tribes who are comprised of the Klamath Tribe, the Modoc Tribe, and the Yahooskin Band of Snake Indians. In 1864 our respective leaders entered into a Treaty with the United States. In one section of the Treaty our ancestors reserved to us, with the complete agreement of the United States, water rights that we have held since time immemorial. While we ceded other lands and rights in the Treaty to the United States for the benefit of its citizens, we reserved our water rights for hunting, fishing, gathering, and trapping. The treaty resources are essential to the Klamath people and make us who we are. They allow us to live our tribal way of life. In addition to providing for our subsistence, the resources are central to our ability to exercise our cultural and religious practices, which is critical to providing for the physical and social health of our families and community. Without the treaty resources like the endangered c'waam (Lost River Sucker), we simply do not have the ability to live as Klamath People in the way Creator intended. That is why our people and the government of the Klamath Tribes have a deeply felt responsibility to steward our Treaty resources for our 3,700 members and our future generations.

Below I provide a brief summary of our history, which is essential to understanding how we have approached water-related issues. Then, some of the cyclic catastrophes that have plagued the Basin are described, with an emphasis on the Upper Basin. In addition, specific water-related issues are examined, followed by an explanation of how the two recent settlement agreements, the Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement Agreement (KHSA) will resolve these issues and bring stability to the Basin.

What Came Before—Land Loss, Tribal Fishery Loss, Tribal Termination, and Tribal Restoration

In the Treaty of 1864, the Klamath Tribes relinquished claim to a vast territory of 20 million acres of what is now southern Oregon and northern California. However, we reserved to ourselves 2.5 million acres of land, encompassing the entire Upper Klamath River Basin above Upper Klamath Lake. By 1954, fraudulent surveys and various federal Indian polices reduced the Klamath Indian Reservation to 1.2 million acres, of which 882,000 were Tribal trust lands.

More was yet to come. The Termination Act of 1954 led to the loss of federally according Tribal trust.

More was yet to come. The Termination Act of 1954 led to the loss of federally recognized Tribal status, the conversion of a major portion of our ancestral lands into the Winema and Fremont National Forests, and the abrupt loss of the forest-based foundation of our Tribal economy. At the time of termination, the Klamath Tribes was among the most prosperous Tribal Nations in the United States. Ironically and brutally, the federal Termination policy was based on the idea that because of our success, we could do without the land base that was the very source of that success. Predictably, Termination precipitated severe economic and social devastation from which we are still struggling to recover.

In 1986 the United States acknowledged the failure of the termination era policies by restoring our federally recognized Tribal status. While this step restored some capability and authority to influence resource management, it was not accompanied by the return of our ancestral lands. Federal recognition did not re-start our forest-based economy and the social devastation wrought by termination is still with us. To date the Tribes have reacquired only about 700 acres in scattered parcels.

Our aquatic resources, which are fundamental to Klamath tribal life, suffered too. Over the past century as the Klamath land base was eroded, development focused on putting water to beneficial use. Vast tracts of wetlands and even lakes were diked, drained, and transformed to farmland. Floodplains of our major river systems were developed for agricultural uses and hydropower dams were built on the Klamath River. Upper Klamath Lake was put to work as the primary reservoir serving the needs of hydropower and agriculture. These developments enabled robust non-tribal economies to develop around the water resources of the Upper Basin.

But these changes involved significant loss to the Klamath Tribes. Our salmon and steelhead runs were completely wiped out when the first Klamath Hydroelectric Project dam was built in 1917 without fish passage facilities, despite the Klamath Tribes' strong protests and written promises from the California Oregon Power Company that such passage would be built. In addition to obliterating the salmon and steelhead runs, the resulting changes in the hydrology of Upper Klamath Lake and its tributaries damaged other Treaty-protected fisheries. Loss of wetlands and riparian ecosystems, along with other land use changes, increased the flow of nutrients into Upper Klamath Lake. This excessive nutrient enrichment causes enormous summertime cyanobacterial (blue-green algae) blooms, impairing water quality so severely that the two lake-dwelling sucker species-some of the toughest fish, and once among the most abundant fish in the Basin-have been pushed to the brink of extinction. Effects of this nutrient enrichment are felt by other fisheries and water users in the Klamath River far downstream of Upper Klamath Lake.

While a lot of focus is placed on the Tribes' fishery resources we must not forget that the Tribes treaty resources include other plant, wildlife, and water fowl. For example, the wokas, or woksam in Klamath, is the yellow "water lilly" that is one of the main nutritious food staples of our people. Wokas is used year round and the dried seed shells can be used as a dye for the tule reeds used in making baskets. In the 1800s, it was estimated that the Klamath Marsh contained thousands of acres of wokas. The same can be said of the Upper Klamath Lake, Lower Klamath Lake and Tule Lake. Today the wokas beds are dwindling and are only a mere fraction of what they used to be. It's difficult to depend on the wokas from year to year as the crops continue to shrink, yet the wokas is an integral part of Klamath culture and diet. Our collective memory always comes back to the wokas as the one thing that ties us together. It in part has, after all, helped us persevere through the mil-

lennia.

The Klamath Tribes have borne many severe costs associated with developing the Basin, but have received few of the benefits. Our salmon and steelhead are gone, while PacifiCorp shareholders and rate-payers have continuously benefited from the electricity produced by the dams that destroyed these fisheries. We have not fished for the endangered c'waam and koptu (Lost River and shortnose suckers) since 1986, while irrigated crops and livestock have been raised and sold each year from agricultural operations that take water from our rivers and lakes, and contribute to excessive nutrient loading that compromises ecosystem health. These fisheries sustained our people for millennia, but a mere century of development threatens their continued existence, and now, after centuries of harvesting tens of thousands of fish, we are restricted to two fish each year for ceremonial purposes. Many other examples exist. Make no mistake: the Klamath Tribes view these steep inequities as Treaty violations - a demonstrated failure of the United States to keep faith with our people. As may be imagined, deep, abiding anger and sadness about this situation has pervaded our people for many years.

After the Klamath Tribes' federal recognition was restored, we initially worked in an adversarial manner to turn these realities around, but eventually came to see that a collaborative approach was necessary to resolve the Basin's persistent conflicts. For the decade of the 1990s, we did what everyone else was doing: we sought only what we needed, without particular regard to the needs of others. We came to realize that when everyone acts in this manner, then conflict and division prevails. This began our earnest efforts to seek collaborative settlement of these issues. Despite several failed attempts, our interest in settlement remained and when the large settlement efforts around the KBRA/KHSA emerged, we committed ourselves

to helping them succeed.

The Basin's Many Conflicts

Natural resource crises have plagued the Basin for decades, and while conflicts over water have taken center-stage, the fundamental issues driving these conflicts go beyond water. Recurring crises reflect the continued inability of various groups to attain or maintain social, cultural and economic sustainability, which inevitably causes strife as groups fight one another to ease their social and economic pain. Most who understand the issues have realized that the status quo simply dooms us all to the unabated continuation of these catastrophes and conflicts until precious things are lost forever.

Rotating Catastrophes

Due to continuing population declines, in 1986 the Klamath Tribes closed their fisheries for c'waam (Lost River sucker) and koptu (shortnose sucker). The United States' failure to preserve these treaty resources for the Tribes is a treaty violation as well as an economic and cultural bombshell for the Tribes. Two years later, the

Lost River and shortnose suckers were listed as Endangered under Endangered Species Act and in 1997 coho salmon were listed as Threatened. While listing was important for protecting fish populations, a comprehensive management scheme has never been established. Accordingly, beginning in 1991, and continuing to the present, rather than being managed in a sustainable way, water has been managed via Biological Opinions and litigation in Upper Klamath Lake and the Klamath

Between 1995 and 1997, there were severe fish kills in Upper Klamath Lake. These kills were dominated by endangered suckers, further imperiling the existence

of the fish the United States is responsible for protecting.
In 2001, as a result of Biological Opinions for Upper Klamath Lake and Klamath River flows, there was an almost complete cessation of water deliveries to the Klamath Irrigation Project. Irrigators who relied on the water occupied the head gates and protesters gained national attention. Eventually there was \$40 million in disaster relief funding for irrigators, but the crisis starkly demonstrated the results of decades of failed federal policy in the Basin.

In 2002, there was a severe fish kill in the lower Klamath River, dominated by

adult salmon and steelhead. This was another economic and cultural blow, this time to lower river Tribes. By 2006, the perilous condition of Klamath Chinook salmon stocks precipitated severe restrictions on ocean salmon harvest along the Pacific coast. This was catastrophic for coastal communities and even more disaster relief funds had to be dispersed because there was no management plan in place for the Basin. Throughout 2008 there were recurring, severely restricted ocean salmon harvests due to low salmon returns along the West Coast, including the Klamath River. In October, 2009, Upper Klamath Lake levels were very low, the result of river,

irrigation, and refuge demands. The dry winter that followed, coupled with relatively high court-mandated winter flows in the Klamath River, prevented the Lake from filling, which caused severe water shortages in 2010. This was a test of key relationships formed in the KBRA/KHSA negotiations. Former adversaries worked together to successfully manage the problem. This situation demonstrated the value of the new relationships. However, while these relationships are strong, they hinge on the common purpose of implementing the agreements. Therefore, Congress must

act to implement the KBRA and KHSA if this cooperation is to endure.

That brings us to the present. Similar to 2009, in October 2012, Upper Klamath Lake was taken to very low levels by meeting demands from the Klamath River, irrigators, and refuges. Upper Klamath Lake then failed to fill during the dry winter that followed. Despite the fact that a new Biological Opinion has altered and improved water management strategies, beginning the irrigation season with so little water in the Lake severely complicates water management in 2013. Project irrigators face a large shortage, refuges will be nearly dry, and the Tribes' water right will not be met in the lake. Environmental groups and one lower river Tribe have filed lawsuits under the ESA over water management issues.

Conditions in 2013 clearly demonstrate that the crisis-generating stressors are still present and remain intractable. The KBRA and KHSA offer the Basin its best hope of breaking the cycle of catastrophes and conflict. The success of settlement efforts is largely due to a shared commitment of the parties to put these conflicts and catastrophes behind us. The only thing holding back success is the inaction of

Congress.

While some complain that the KBRA's cost is too high, it is clear to those who thoroughly understand the issues that the cost of doing nothing and maintaining the status quo is unsustainable. The recurring calamities already cost the federal government significant sums. For example, all told, disaster relief funding in the Basin has averaged \$18 million per year since 2001. Disaster relief alone has cost \$110 million, of which \$60 million was a direct cost to the federal government. Therefore, the question before Congress is not whether to spend money, but whether to spend it on an endless series of band-aids or to spend it on a permanent remedy. Federal financial resources would be much better allocated to the long-term solutions conveyed by the KBRA and KHSA.

The status quo has been costly to local economies. For example, in 2006 the Chinook salmon fishery closure resulted in \$100 million in lost fishing revenues. Clearly, the status quo is costly to the federal government, states, local economies, tribes and families. The parties to the KBRA and KHSA are the only ones offering a solu-

Specific Water Issues and their Relation to Settlement Agreements

In 1975, the Klamath Basin Water Adjudication began in Oregon, which involves most of the Klamath River Basin in Oregon. The difficulties associated with the Adjudication process illustrate the necessity of the KBRA. Oregon's Adjudicator issued a Final Order of Determination in March, 2013, which in part determined that the Klamath Tribes possess the most senior (time immemorial) priority dates for water, and large and geographically extensive rights for water in streams, rivers, seeps, springs, marshes and lakes in the Upper Basin. Accordingly, the Klamath Tribes has an enforceable senior water right. Because water in the Basin has never been carefully measured or monitored, it is not possible to say precisely what impact the now-enforceable Tribal water rights will have on prior water management practices. But it is safe to predict that significant changes in that management will be re-

The Adjudication has moved from an administrative to judicial phase. Here, the conflict continues with parties other than our KBRA partners and is expensive, very adversarial, and antithetical to cooperative relationships. At least twice in the press, Klamath Country officials have speculated about the likelihood of violence in the

wake of the adjudication decision favoring the Klamath Tribes.

The Basin's difficulties are driven by underlying problems like water availability, water quality, habitat degradation and extirpation of salmon and steelhead from the Upper Basin. The Adjudication is concerned solely with water availability and will therefore not address all of the Basin's problems. By contrast, successful implementation of the KBRA will largely resolve water issues among the Klamath Reclamation Project farmers, the Klamath Tribes, and others. The KBRA also outlines a process for reaching agreement with the Off-Project agricultural community, which is underway. If Congress fails to enact the KBRA, it guarantees descent into winner-take-all litigation.

The Endangered Species Act

Three listed fish species (coho salmon, c'waam (Lost River suckers), and koptu (shortnose suckers) are very important cultural and subsistence resources for Basin Tribes. The Klamath Reclamation Project, managed by the US Bureau of Reclamation, is subject to Biological Opinions from the US Fish and Wildlife Service (for effects on suckers) and the National Marine Fisheries Service (for effects on coho). Currently, there is competition and constant tension surrounding resources and water management decisions among water levels in Upper Klamath Lake for suckers, irrigation deliveries to Project farmers, flows in the Klamath River below Iron Gate Dam for coho, deliveries to the Tule Lake and Lower Klamath Wildlife Refuges, and off-Project agricultural and ranching. Under the status quo there is not enough water to fulfill all of these demands. Most water management decisions since the early 1990's have been dictated by an inconsistent series of Biological Opinions under the ESA, which have changed frequently, hurting or helping each the interests at various times

The KBRA shifts energy and resources from fighting over ESA jeopardy determinations and water allocations based in Biological Opinions and focuses instead on cooperatively managing for species recovery. The KBRA strongly emphasizes ecosystem restoration, reintroduction of salmon and steelhead above Iron Gate Dam, and equitable distribution of limited water resources. It also shifts regulatory focus to the use of Habitat Conservation Plans and related tools to harness the portions of the ESA best suited to fostering species recovery in cooperation with local commu-

nities.

Damaged Ecosystems

Recurring social, political, and economic crises are direct and predictable results of many decades of water and land use practices that have impaired critical ecosystem functions. If the present degraded ecosystem conditions are not acknowledged as a fundamental cause of difficulties in the Klamath Basin, and if comprehensive ecosystem rehabilitation measures are not implemented as a primary component of the solution to these difficulties, then the Basin's on-going, cyclic conflict will continue.

Klamath Hydroelectric Project dams owned by PacifiCorp extinguished salmon and steelhead runs to the Upper Basin in 1917 and continue to damage remaining runs. Tribes up and down the Klamath River, as well as many other groups and governments, have fought hard within the Federal Energy Regulatory Commission relicensing process to return salmon and steelhead to the Upper Basin. Removing the lower 4 dams under the KHSA, coupled with restoration actions delivered by the KBRA will resolve this conflict. However, if the agreements do not move forward, this conflict will re-ignite, and litigation will likely continue for decades while the damage to fisheries and water quality continues, and costs to electrical rate-

Over-allocated water leaves too little for ecosystem needs and guarantees extreme conflict over who gets how much water. To date, there have been two avenues for determining water allocation: the Klamath Basin Adjudication and Biological Opinions. Neither of these avenues facilitates the collaboration and compromise required to move beyond conflict. However, the KBRA and KHSA have settled significant portions of these conflicts and offer promise to settle more through an Off-Project water settlement.

Non-point source loading of nutrients into rivers and Upper Klamath Lake causes serious water quality problems, leading to battles over Clean Water Act implementation (TMDLs, CWA certification for dams, etc.). The Klamath Hydroelectric Project is plagued by water quality problems that can only be resolved by dam removal. These problems include massive blooms of toxic cyanobacterial (blue-green algae) in reservoirs that pose a serious risk to human health, and changed temperature regimes of the Klamath River that damage salmon runs. Above Upper Klamath Lake, agricultural uses have damaged riparian ecosystems and increased nutrient leading

The only existing solution is to implement the two agreements. The KBRA delivers an aquatic ecosystem restoration program that will accompany a reintroduction program for salmon and steelhead. Aquatic ecosystem restoration and the reintroduction programs are both large, but are necessary for success. The KHSA charts a course to removing the lower four dams on the Klamath River. Accompanied by an equitable distribution of water delivered through the KBRA, successfully implementing these collaborative programs will radically change the past reality of permanent conflict in the Klamath Basin. For the first time, energy and resources will flow to solutions of the foundational problems.

The Klamath Tribes Strongly Support the KBRA and KHSA

The Klamath Tribes' support of the KBRA and KHSA is unwavering. Twice now, the Klamath Tribes have held referendum votes on these agreements and each time the outcome has been positive. Such support reflects our tribal citizens' understanding that the agreements represent the best opportunity to find stability and a positive future for all communities, resources, and economies in the Klamath Basin. These agreements support recovery of fish populations to eliminate litigation and reinvigorate fishing economies, provide reliable water deliveries for farming and fish, and invest in environmental and economic stability for Tribal and agricultural communities.

Such outcomes were important enough to the Tribes to justify compromise with the Klamath Reclamation Project irrigators regarding some of our senior water rights. In addition, we agreed to certain performance-based relinquishment and release of breach of trust claims against the United States.

Economic & Land Recovery

Like the other settlement parties we seek economic stability, but it will be decades before the Klamath Tribes' will see the full benefit to our fisheries from dam removal. Therefore, one of our key bargained-for benefits in the KBRA was re-acquisition of former reservation lands, the 90,000 acre Mazama Forest. Tribal ownership of this tract will put Tribal and non-tribal members to work in forest products, one of the area's traditional economies. Klamath County needs forest products businesses and it needs jobs for its people. Currently, the Klamath Tribes contribute more than \$50 million per year to the Klamath County's economy in the form of payroll, direct expenses and goods and services. Furthermore, the Tribes employ approximately 450 people, approximately half of which are non-tribal members. With the recovery of the Mazama Forest the Tribes will put many more people to work in the community.

Loss of our land destroyed the Tribal economy and recovery of land is a key to economic recovery. Other parties to the KBRA will get economic benefits quite soon in the form of power benefits, reliability of water supply, and healthier runs of harvestable fish. By contrast, most benefits for the Klamath Tribes depend upon full, successful implementation of both the KBRA and the KHSA, and will therefore manifest gradually over many decades. We need short term, tangible benefits as well, and Mazama Forest allows recovery to begin soon by returning Tribal members to jobs in the woods, which was our main economic base before the United States terminated our reservation. Our development plans revolve around green energy production closely linked to improved forest health and reduced danger of catastrophic wildfire.

Woody materials removed from the forest pursuant to implementing forest management strategies designed to restore healthy stands will provide feedstock for a biomass energy facility and other businesses. The Tribes will use the guidelines of our rigorous, peer-reviewed Tribal Forest Management Plan (http://www.klamathtribes.org/background/documents/

ath Plan Final May 2008.pdf) to restore the forest to a healthy ecosystem that also provides for sustainable timber harvest and wildlife habitat.

Reacquisition by the Klamath Tribes of the Mazama Forest is an essential and appropriate ingredient of the KBRA. It offers economic opportunities in fields familiar to the Tribes and the surrounding community. Moreover, it acknowledges the Tribes' need to express the fullness of their connection to their homeland. Reacquisition creates acceptable parity among KBRA participants, establishing a balance enabling the Klamath Tribes to agree to other core elements of the KBRA. Without this balance, the KBRA would be unacceptable to the Klamath Tribes.

Conclusion

I once again extend my thanks for this opportunity to deliver this message from the Klamath people. We have put enormous effort into finding productive, collaborative ways to resolve difficult issues that profoundly affect Klamath Tribal interests. After nearly a century of conflict in the Basin, we have an opportunity with the KBRA and KHSA to put an end to these persistent battles and move our communities and economy forward. The only thing standing between the present dysfunction in the Basin and the implementation of an already-negotiated agreement is the United States Congress. We ask the United States to honor its trust and treaty obligations and enact legislation implementing the KBRA and KHSA.

Thank you again for holding a hearing on this important topic. I am happy to an-

swer any questions you may have.

The CHAIRMAN. Very good, Mr. Gentry. We thank you and particularly thank you for all your cooperation.

Leaf G. Hillman is Director of the Karuk Department of Natural Resources. The tribe is in Happy Camp, California.

We welcome you, sir.

STATEMENT OF LEAF G. HILLMAN, DIRECTOR OF NATURAL RESOURCES, KARUK TRIBE, HAPPY CAMP, CA

Mr. HILLMAN. Thank you.

Good morning, Mr. Chairman, Ranking Member Murkowski. Appreciate the opportunity to be here. On behalf of the Karuk Tribe I/we do appreciate the opportunity to engage in this important conversation that affects both States.

I appreciate the discussion and would point out that the entire Basin, this revolving crisis, affects from top to bottom. Past attempts to resolve problems in the Basin have been focused both in the lower Basin, restoration legislation to restore the Klamath Basin ended at upstream at the dams. Other attempts at restoration began at the dams and looked at upstream and Upper Basin issues.

Never before have we had the opportunity to look at a holistic solution that includes both the Upper and Lower Basins and looks at the system as it truly is, one system. Although the complexities of looking at the one Basin system that it is includes obviously 2 States and increases the size of the tent, as you may. This is the approach that is necessary to truly resolve the years of conflict that have plagued the communities in the Basin from top to bottom.

The revolving crisis in the Basin has affected our communities from the coast of California, 700 miles of coastland and the fisheries, commercial salmon fishery at the coast that's dependent on the salmon runs and the health of the system as a whole. We can't restore and solve the problems from the top to the bottom, this one system, without taking this holistic approach. We do appreciate the leadership of the chairman to take on this issue and appreciate the nuances of all of the communities that are affected here.

The Karuk Tribe is located directly below the last dam on the Klamath. As such have witnessed the impacts created by the hydro projects and the ongoing impacts that they have. This effort that we've been engaged in, many parties in the Basin, for a number of years, all of us have suffered and our communities have suffered, you know, the economically as well as culturally. Our communities are looking for leadership to resolve these conflicts.

The KBRA represents something that's very unique in the history of the water struggles in the Klamath Basin. It represents compromise. A true compromise, a very large tent that represents many communities, very diverse and when we began this a number of years ago sitting across the table from one another people who considered themselves historic enemies put those differences aside and worked together to resolve these issues. We appreciate the committee committing itself to do the same.

Thank you.

[The prepared statement of Mr. Hillman follows:]

PREPARED STATEMENT OF LEAF G. HILLMAN, DIRECTOR OF NATURAL RESOURCES KARUK TRIBE, HAPPY CAMP, CA

Ayukii Mr. Chairman and Members of the Committee. On behalf of the Karuk Tribe, I thank you for the opportunity to participate in this important conversation on water resource issues in the Klamath Basin.

My name is Leaf Hillman and I am the Natural Resources Director for the Karuk Tribe. The Karuk Tribe is the second largest federally recognized Indian Tribe in California with over 3,600 members. Our aboriginal territory is located immediately downstream of the Klamath River dams and spans large portions of Siskiyou and Humboldt Counties in Northern California.

I was born on the Klamath River and have lived on it my entire life. I am a hereditary dance owner and ceremonial leader responsible for carrying on our ancient traditions of Piky'avish or World Renewal Ceremonies. Every year since the beginning of time, Karuk People have remade the world through these ceremonies handed down to us by the Creator where we pray for all things and all the peoples of the earth. So for my People, these issues are not just about fish or water but about something far deeper and more meaningful. Our physical health, our spiritual health, and our cultural identity are intimately tied to the ecological integrity of the Klamath River Basin.

The Karuk traditionally lived in over 120 villages and subsisted on the bountiful runs of salmon, steelhead, and lamprey in the rivers and the abundance of acorns, mushrooms, deer, and many other native plants and animals in the forests. The productivity of the natural landscape enabled the Karuk to develop a sophisticated culture replete with its own currency, basketry, natural resource management practices, and ceremonial structure. Trade networks were well established with neighboring tribes in the area. The productivity of the landscape and the Karuk's sophisticated civilization inspired historian Arthur McElvoy to describe the Karuk at the time of contact with Europeans as " . . . at once the wealthiest of all California Indians in terms of disposable resources and the most specialized economically."

In the 1850s, the traditional Karuk lifestyle ended suddenly and violently with the onset of the California gold rush. As miners moved into Northern California to stake their claims—and as the U.S. Calvary moved in to ensure miners' safety—Karuk People were murdered, massacred, and enslaved. Many who escaped the violence fell to disease or starvation. Whole villages were burned and the life giving Klamath watershed was damaged by hydraulic mining and mercury contamination. Still many Karuk remained in our traditional territory, refusing to succumb to the violence and oppression of the invaders.

The gold rush was only the beginning. For over 160 years, the economy and politics of the middle Klamath River region was driven by the quest to extract natural resources; gold and copper mining operations were soon followed by the hydropower industry which constructed a series of dams between 1918 and 1962; the timber industry peaked in the mid-20th century; industrial agriculture has dewatered the river increasingly over the past 100 years; and today the middle Klamath is a desagned.

tination for illicit marijuana growing operations which pose a new set of environ-

mental and social problems.

Today the middle Klamath River region remains unhealed from the devastating effects of this series of disruptions to social, economic, and natural systems. Historically, Klamath River salmon runs numbered up to a million returning adults per year. (Hamilton, Crutis, Snedaker, & White, 2005). Today, runs are a fraction of this with some runs of salmon, such as chum and pink salmon, extirpated from the Klamath system altogether, and others such as coho salmon on the Endangered Species List.

The cumulative effects of mining, destructive logging practices, irrigation diversions, dam building, and the attempted genocide can be seen in Karuk communities today. In contrast to McElvoy's observation that the Karuk were "... at once the wealthiest of all California Indians in terms of disposable resources," today the Karuk experience poverty at alarming rates. According to a recent government report, 91% of Karuk Tribal members in Klamath River communities live below the

poverty line. (U.S. Department of the Interior, Bureau of Indian Affairs, 2005).

The dramatic decline in fisheries also affects our physical health by denying Karuk People access to healthy foods. Before contact, research indicates that the avrage Karuk consumed over a pound of salmon, per person, per day. Today, the average Karuk living along the river consumes less than 5 pounds of salmon in a year. Thus, the decline in fisheries has led to a rapid shift in diet for Karuk People from fish to what is available through government food programs. The result of this altered diet is that today, the diabetes rate among the Karuk is 21%, nearly 4 times the national average. Similarly, the rate of heart disease is 39%, or 3 times the national average. (Norgaard, 2005).

As previously noted, the reasons for the decline in Klamath River fisheries is manifold; however, we assert that Klamath River dams are one of the two greatest factors to consider (the other being operation of the Klamath Irrigation Project discussed below). The Karuk Tribe has been one of the leading proponents of Klamath Dam removal for decades. That's because we have witnessed the impacts of Klamath River dams first hand. With the completion of Iron Gate Dam in 1962, we saw the utter collapse of Klamath fisheries which were already imperiled by a century of mining, poor forest management, dams, and diversions. Today we live with massive blooms of toxic algae that originate in the Klamath Reservoirs. When our Tribe's medicine men are required to bath in the Klamath River to fulfill their religious obligations, the river is often posted with signs warning against bodily contact with the water due to high levels of algal toxins. In the summer, we can't let our children

swim in the river or let our dogs drink from it.

Thus dams harm Klamath River fisheries by blocking salmon's access to nearly half of their historic range in the Klamath Basin (Hamilton, Curtis, Snedaker, & White, 2005) and facilitate massive blooms of the toxic blue green algae Microcystis

aeruginosa which create a significant human health risk (Kann, 2006)

As the health of the river has declined, the conflicts between Klamath basin communities have intensified. That's because in any given year, at least one community in the Klamath Basin is doomed to suffer. Sometimes its irrigators who get their water shut-off; sometimes its commercial fishermen who are not allowed to fish for a living; and in many years it is the Klamath River Tribes who cannot harvest enough fish to meet basic subsistence needs. We live with a rotating crisis that for years has led neighboring communities to engage in bitter political and legal battles. After decades of trying to shift the burdens of this crisis to someone else, leaders from the Basin's diverse rural communities decided to try something new. Something unprecedented in the Klamath Basin: compromise.

This effort started soon after the back to back disasters of 2001 and 2002. Although the Klamath Crisis started many years earlier, it was the irrigation shut-off to the Klamath Project Irrigators in 2001 followed by the massive fish kill of 2002 that elevated the Klamath Crisis into the national spotlight. Immediately following these events, Tribes, irrigators and other parties engaged in a series of court battles while at the same time they sought help from their respective members of Congress. At the time, these disputes focused on the operation of the Bureau of Reclamation (BOR) Klamath Irrigation Project (KIP) which is the primary factor controlling flows in the main-stem Klamath River. The KIP represents nearly 250,000 acres of irrigated farmland in southeastern Oregon and northwestern California. The KIP is made up of over 1,400 family farms and the Klamath Wildlife refuges which are fundamentally important nesting and feeding grounds for birds migrating along the Pacific Flyway.

Much of the litigation revolved around the Biological Opinion on the BOR irrigation plan. Since there are Endangered Species Act (ESA) listed suckers in Upper Klamath Lake and ESA listed coho salmon in the lower river, the BOR operational

plan must be evaluated by wildlife agencies to determine if its implementation will jeopardize the survival of these species. It is important to understand that when we talk about balancing water in the Klamath, we are balancing water between 1) the lower river for ESA listed coho and other anadromous species, 2) ESA listed suckers that dwell in Upper Klamath Lake and other areas, 3) the wetlands of the Klamath Wildlife Refuges that are vitally important for migratory waterfowl, and 4) the Klamath Irrigation Project. Needless to say, in the past it has been impossible to balance water resources in the Klamath Basin in a manner that satisfies the needs of all communities.

About the same time that Klamath communities were dealing with the aftermath of the 2001/2002 catastrophes, PacifiCorp's fifty year old Federal Energy Regulatory Commission (FERC) license to operate the Klamath River dams downstream of the BOR KIP expired. With PacifiCorp's application for a new dam license came an opportunity to participate in a process that could mitigate or end the devastating impacts of the dams. It also meant that for the first time, the two greatest factors limiting fish production in the Klamath Basin were subject to regulatory review at the same time: KIP diversions were subject to a Biological Opinion and PacifiCorp dams

were subject to FERC relicensing.

In many ways, the timing of the 2001 water shut-off, 2002 fish kill, and the expiration of PacifiCorp's Klamath dam license was serendipitous. However, it was the leadership from Klamath Basin Tribes, irrigation districts, fishermen's organization of the composite of the compo tions, conservation organizations, and local governments that recognized the opportunity and seized it. What started out as a FERC relicensing process evolved into a broad based discussion aimed at solving once and for all the Klamath Crisis. The products of these negotiations are the two Klamath Restoration Agreements. The Klamath Hydropower Settlement Agreement (KHSA) lays out a strategy for removremoving the lower four Klamath Dams in 2020 pending regulatory reviews, a public interest determination by the Secretary of Interior, and congressional approval. The Klamath Basin Restoration Agreement (KBRA) represents a roadmap for restoring the fisheries and water quality of the Klamath Basin while providing water security for Klamath Basin farmers, ranchers, and irrigators. It was not easy and some parties who were there in the beginning were not there in the end. But after years of conflict, I think that the parties whose cultures and livelihoods are most at risk realized that we all share a common destiny. We will either emerge from this crisis together or suffer perennial conflict and community instability for generations to come, which means many of our communities could simply perish.

The process has led to some very unique and unlikely alliances. I sit before you

today in partnership with farmers and ranchers, commercial fishermen, conserva-tionists, neighboring Tribes, and dam owner PacifiCorp. It's true that we still don't see eye to eye on every issue, but we are uniformly committed to a long term solution to the Klamath Crisis. That solution is embodied in the Klamath Restoration Agreements. These Agreements are not perfect. The Karuk Tribe is not getting its every need met. Neither is anyone else. That is the nature of compromise. But the alternative, as I see it, is the continued collapse of west coast salmon fisheries, economic disaster for the region's unique and diverse rural communities, and the failure of the United States to live up to its obligations and to fulfill its legal and moral commitments to Klamath River Tribes. I respectfully and emphatically urge this committee to act quickly to introduce legislation that would see the Klamath Res-

toration Agreements fully enacted as soon as possible.

I realize that even if the Klamath Agreements are fully implemented there will remain some unresolved issues in the Klamath Basin. We still have water quality issues to address and degraded habitat in many tributaries will still need to be re-habilitated. But I firmly believe that if implemented, the Klamath Agreements would serve to set the Klamath Basin's ecosystems and economies firmly on the road to recovery.

The Karuk Tribe truly appreciates your attention to this important issue and the opportunity to share our perspective. Please let us know if we can provide any additional information or assistance to the Committee as it moves forward to address the ongoing Klamath Crisis.

The CHAIRMAN. Thank you very much, Mr. Hillman. That's very much appreciated.

Ms. Hayley Hutt, welcome.

STATEMENT OF HAYLEY HUTT, HOOPA VALLEY TRIBAL COUNCIL MEMBER, HOOPA, CA

Ms. HUTT. Good morning.

I'm Hayley Hutt, an elected member of the Hoopa Valley Tribal Council located in Northern California. Thank you for the oppor-

tunity to participate in this hearing.

The Hoopa people have resided in Hoopa Valley and surrounding territories since time immemorial. After military campaigns in the 19th century failed to drive us from our homeland the United States withdrew its soldiers and established the Hoopa Valley Reservation in 1864. Both the Klamath and the Trinity Rivers flow through our reservation land. We have been fighting for decades to protect our rights in these rivers and to restore their fisheries.

We have several needs for the committee to take into account as

consideration to the Klamath River water issues.

The need to enforce Federal trust responsibilities for Indian

water and fishing rights.

The need to honor the law of the Trinity River to restore, preserve and propagate our fishery resources. The United States holds in trust the KBRA's subordinates the Trinity record of decision.

The need to prevent the over allocation of Klamath River water to the Klamath Reclamation Project in Oregon at the expense of

tribal trust fishery needs in California.

The need to identify specific Klamath fishery restoration goals based on the best available science. The fishery goals should really be to pre-dam levels.

The need to respect tribal self determination and the sovereign authority of a tribe to decide whether proposed water agreements

are in the best interest of its members.

The need not to adopt any settlement that terminates the rights of or imposes adverse consequences upon a tribe that chooses to retain its water rights instead of settling on terms desired by the Federal Government.

The need to separate hydroelectric relicensing from settling of water rights in the Upper Basin. Separate the FERC licensing process from the KBRA. Allow the California Water Board to enforce the Clean Water Act.

The need to protect senior Klamath Basin water rights in California.

The need to build a basin wide management structure.

I look forward to discussing these needs and have tribal staff on hand to address any technical questions that you might have. Our written testimony includes additional details on these points.

Thank you.

[The prepared statement of Ms. Hutt follows:]

Prepared Statement of Hayley Hutt, Hoopa Valley Tribal Council Member, Hoopa, CA

Thank you for the opportunity to present testimony on behalf of the Hoopa Valley Tribe concerning Water Resource Issues in the Klamath River Basin. The Hoopa Valley Indian Reservation, established in 1864, is the largest land based Indian reservation in California. The Klamath River runs through the northern part of our Reservation, and the Trinity River, the largest tributary of the Klamath, bisects our Reservation running south to north. The rivers join at the northern boundary with the Yurok Reservation.

We are very familiar with the problems caused by over-appropriation of waters from the Klamath River system from our long experience addressing the over-appropriation of waters from the Trinity River system. There are strong similarities between the Klamath River today and what happened on the Trinity River in the

1970's where the Bureau of Reclamation, in disregard of the Trinity River Division Act, diverted up to 90% of the flow of the Trinity at Lewiston, California to the Central Valley Project ("CVP"), nearly destroying the anadromous salmon runs. Secretarial decisions in the 1980s and advocacy by our Tribe led to studies and ultimately to passage of the Central Valley Project Improvement Act of 1992 (CVPIA), Pub. L. 102-575, § 3406(b)(23). In recognition of the Tribe's long record of stewardship of the Trinity River, the CVPIA required the Secretary to obtain the concurrence of the Tribe before any program to restore the Trinity River fishery could take effect. Pursuant to that act studies in which tribal scientists played a crucial role identified water needed for fishery restoration and associated restoration activities. The Secretary and the Tribe convened in Hoopa in December 2000 to execute their joint decision for Trinity fishery restoration. That agreement to restore the Trinity River fishery is a modern Treaty between the Hoopa Valley Tribe and the United States. Restoration work and carefully regulated water diversions and releases are in place.¹ As discussed later in this testimony, our Tribe has also been deeply involved in efforts to restore the Klamath River fishery. This experience informs our testimony concerning water issues in the Klamath River.

Our testimony will address: (1) protection of rights to Klamath River water in California; (2) a Basin-wide management structure in the form of a Joint Directorate for coherent oversight and decision making about Klamath River water supplies and needs; (3) authority and funding for acquisition of water rights in Oregon; (4) the need to restore ecological functions of the Lower Klamath and Tule Lake Wildlife Refuges to improve water quality in the River; (5) limiting the effects of certain Tribes' waiver of their claims so that other rights are not adversely affected; and (6) separation of the relicensing or settlement of the Klamath Hydroelectric

Project from water rights of the Klamath Basin.

1. Protection of Klamath River Water Rights in California.

For several years, water users in the Klamath basin have focused on the negotiation of the Klamath Basin Restoration Agreement (KBRA) to satisfy Oregon demands for Klamath water. But the KBRA substantially infringes on needs for water in the Klamath River below Iron Gate Dam in California. Dry conditions in the Oregon portion of the Klamath Basin coupled with over-appropriation of waters from Upper Klamath Lake by the Bureau of Reclamation last year, now threaten serious adverse consequences that ripple all the way to southern California. The KBRA also has a direct impact on the Central Valley Project (CVP) and the Bay Delta Conservation Plan (BDCP) because by reducing water supplies in California's portion of the Klamath River, the KBRA would put greater demands on the CVP's Trinity Division to serve Klamath/Trinity needs. The un-reconciled demands for water from the north and the south could lead to catastrophe for the Trinity and the Lower Klamath salmon fishery. The Tribe has spent decades working to avoid that outcome and needs the help of this Committee in order to succeed.

The BDCP—and the proposed tunnels around the San Francisco Bay Delta—assume that Trinity River water that Congress allocated to the Klamath Basin more than a half century ago will be available to the rest of California. In addition, the reduced availability of Upper Klamath Lake water has caused the Pacific Fisheries Management Council, the Trinity Management Council, and California Salmon and Steelhead Advisory Committee to call on the Secretary of the Interior to take action this summer to release additional water from Trinity reservoirs into the Klamath basin to prevent a die-off of adult salmon in the Lower Klamath River. Already, CVP interests are protesting this reduction in water available to them. See Letter from San Luis & Delta Mendota Water Authority to Bureau of Reclamation Regional Director David Murillo, May 31, 2013 (attached). Further, since at least 2003, the Department has refused to release Trinity Division water to Humboldt County and downstream users as required by: (1) the 1955 Trinity Division authorization act; (2) the associated state permits for the TRD; and (3) the 1959 CVP water service contract between Humboldt County and the Bureau of Reclamation. The Trinity and Klamath are under stress from the CVP and BDCP.

BDCP and Interior officials continue to deny requests that BDCP models incorporate Trinity water rights. They have refused to do so on the grounds that the water has not been historically used. But that is because of Interior's refusal to release the water. Moreover it is inconsistent with the Interior Department's practices in planning federal project water use in

California.—For example, the BDCP water supply model includes anticipated future uses in the Sacramento basin, so it makes no sense for the Bureau to refuse

¹See Westlands Water Dist. v. Hoopa Valley Tribe, 376 F.3d 853 (9th Cir. 2004) (restoration decision complied with NEPA and Endangered Species Act).

to do the same for existing rights in the Klamath basin. As mentioned above, the CVP contractors are putting heavy pressure on the Bureau of Reclamation not to use any Trinity Division water for the Lower Klamath fishery.

As less volume and more polluted water flows into California from Oregon, the stress on California salmon increases sharply. For most of the last decade, the only safety valve for fish survival in the Lower Klamath estuary has been increased releases of water from Trinity reservoirs. That means less water for California and disregards our Tribe's senior water rights. In Wyoming v. Colorado, 259 U.S. 419 (1922), the Supreme Court ruled that the waters of a stream rising in one State and flowing into another State may not be disposed of by the upper State without regard to the harm that may inure to the lower State. Even without an interstate adjudication, the relative rights of two adjoining states which have both adopted the doctrine of prior appropriation should be determined on that basis. Therefore, Oregon is not free to adjudicate and dispose of all of the waters of the Klamath River Basin in Oregon, but must respect the senior, 1864, rights reserved by the United States for the Hoopa Valley Tribe in order to support a moderate living based upon the taking of salmon and other aquatic species in California. See Parravano v. Babbitt, 70 F.3d 539 (9th Cir.1995).

The Department of the Interior understands the water supply needs for Klamath fishery purposes in California. The United States retained Utah State University and Dr. Thomas Hardy to investigate those needs. Dr. Hardy's Evaluation of In-Stream Flow Needs in the Lower Klamath River—Phase 2—Final Report (July 31, Stream Flow Needs in the Lower Klamath River—Phase 2—Final Report (July 31, 2006) represents the best science available as to the water required to satisfy the Hoopa Valley Tribe's senior water rights. This peer-reviewed science document has not been used as a basis for water planning, but instead has been simply set aside without explanation. The Tribe requests the Committee to ask the Department why

that was done.

The diversions of Klamath River water to the Klamath Reclamation Project in Oregon provided for in KBRA Appendix E-1 will leave too little water in the River to support anadromous fish runs in California, setting up degraded habitat conditions year after-year like those that occurred in the 2002 fish kill, the largest in history.

How much water will be needed for fisheries in California after removal of four dams on the Klamath River cannot now be known. What is known is that the Bureau of Reclamation's studies prepared in support of the Environmental Impact Statement on the Secretarial Determination show that in dry water years the KBRA will provide less water to the Klamath River than the amount currently required by the Biological Opinion issued pursuant to the Endangered Species Act ("ESA").2 The KBRA parties deal with this reality by pledging among themselves to lobby the National Marine Fisheries Service to reduce the ESA flow requirements. See KBRA § 21.3.1.B. Using political pressure to repudiate the best available science is a recipe for disaster. The Hoopa Valley Tribe's experience with the Trinity River shows that scientific investigation is essential to determination of flows needed for fish restoration. The needs of species cannot be determined by a political compromise among a few interested parties.

2. Basin-Wide Management.

It was apparent by the early 1980s that the Klamath and Trinity fishery and watershed management activities were in need to being coordinated if proper fishery, habitat and water management were to be successful. In 1986, we worked with the States of California and Oregon, the Departments of the Interior and Commerce through the Pacific Fishery Management Council to coordinate fishery management, fish habitat, and water management that would complement our work on the Trinity. The Tribe was instrumental in enacting Pub. L. 99-552, the Klamath River Basin Fisheries Task Force (Task Force), which created the Klamath Fishery Management Council and Klamath Task Force. The Klamath Fishery Management Council worked to bring together resource managers from the States and Federal agencies, while the Task Force focused its attention on habitat and water management issues.

Pub. L. 99-552 provided a framework to:

1) ensure more effective long-term coordination of Klamath-Trinity River fisheries under sound conservation and management principles that ensure adequate spawning escapement and monitoring;

² See Technical Report No. SRH-2011-02, Hydrology, Hydraulic and Sediment Transport Studies for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration and Appendix F of that document ("the 90% exceedence [dry year] flows are similar for the two alternatives from March through September, but for the months of October to February the No Action Alternative [current flows] 90% exceedence flows are about 20% to 30% larger.").

2) improve area hatcheries to assist in rebuilding natural fish populations and maintaining genetic integrity and diversity among subbasin stocks;
3) improve upstream and downstream migration by removal of obstacles

to fish passage; and

4) rehabilitate watersheds.

The Act was amended to provide for the expansion of restoration and management activities in areas above the Iron Gate Dam and added members to the Task Force representing the Klamath Tribes and Commissioners of Klamath County in

Oregon.

The Klamath Fisheries Management Council successfully worked among the agencies and stakeholders to establish a balanced harvest and spawning escapement management structure that remains in place for Klamath River Fall Chinook Salm-on. See Pacific Fisheries Management Council Amendment 9. The Task Force's reports, findings and recommendations on habitat and restoration are posted on line by the U.S. Fish and Wildlife Service's Office in Yreka, California. The Task Force has attempted to bring balanced management to Klamath and Trinity fishery restoration activities and water quality and quantity concerns. Unfortunately, Pub. L. 99-552 expired in 2006 and was not reauthorized.

In 1996, Pub. L. 104-143, the Trinity River Basin Fish Management Reauthorization Act of 1995, was enacted to expand the definition of Trinity River fishery habitat to include the 42-mile reach of the Klamath River from the Trinity confluence to the Pacific Ocean. Pub. L. 104-143 also required improvements in the Trinity River Fish Hatchery so that it can best serve its purpose of mitigation of fish habitat above Lewiston Dam while not impairing efforts to restore and maintain natu-

rally reproducing anadromous fish stocks within the basin.

Basin-wide management, based on the Trinity River Restoration Program model, is important for an additional reason. The Trinity River stands as the sole safety net for the Klamath River Basin. As demonstrated in 2003, 2004, 2012, and 2013, the Trinity River has been the only source of available water to address low flow, warm water, and disease conditions that have come to characterize the Klamath River Basin. In order to keep the Trinity River in a position of being able to meet Lower Klamath River fishery needs, not only must the Trinity River Restoration Program be fully implemented but the other supplies of CVP water from the Trinity Division dedicated to the Klamath basin must remain available.

The National Research Council Report on Klamath (2007)³ urged establishment of a Basin-wide management structure. The National Research Council Report pointed to the final Trinity River Mainstem Fishery Restoration EIS/EIR [2000] as:

[A] governance structure that is explicitly intended to facilitate the program's Adaptive Environmental Assessment and Management efforts . . . [T]his governance structure appears to provide clear paths for bringing information that is critical to land, water and species management to those who can use it. Adaptive management in the greater Klamath River Basin would benefit substantially by adopting organizational and process approaches that are being used to support restoration planning in the Trinity River sub-Basin.4

In response to this recommendation, the Hoopa Valley Tribe has proposed a Joint Directorate that would similarly provide for management of the remainder of the Klamath Basin, and recognize the role of state, federal and tribal governments in resource management. Our ideas for a comprehensive management structure for the Klamath basin are based on our work in recent decades to coordinate management

in the Klamath and Trinity Basins.

Rather than continuing a coordinated Klamath-Trinity basin approach, the parties to KBRA adopted a structure called the Klamath Basin Coordinating Committee ("KBCC") which also includes a technical team. But the KBCC is made up solely of the signatory parties to the KBRA which, for example, excludes the Hoopa Valley Tribe and the federal agencies, and also fails to address management issues arising in the California portion of the Klamath Basin, which is more than half of the watershed.

3. Water Rights in the Oregon Portion of the Basin.

Dry conditions during 2013 have again illustrated that too much water is promised to too many parties in the Oregon portion of the Klamath Basin. The good news is that the Final Orders issued by the Oregon Water Resources Department in the Klamath Basin adjudication have finally created enforceable water rights in Oregon. While these Orders are subject to appeal, they are sufficiently identified to enable

Gommittee on Hydrology, Ecology, and Fishes of the Klamath River Basin, National Research Council (2007), (Chap. 6 "Applying Science to Management").
 Hydrology, Ecology, and Fishes of the Klamath River Basin (NRC 2007) at 141.

parties to develop forbearance agreements and otherwise use contracts to reflect

market forces for allocation of valuable water.

The Bureau of Reclamation in the past has made forbearance agreements with landowners in the Klamath Reclamation Project and appears to have authority under existing law to extend that practice. Another available alternative is provided by 25 U.S.C. § 465, which authorizes the Secretary of the Interior to acquire through purchase, relinquishment, exchange, or assignment "any interest in water rights." Because of the Indian trust water and fishery resources at stake, that statute would authorize acquisition of necessary water rights, if Congress provides the financial support necessary.

4. Rehabilitate the Wildlife Refuges.

One of the essential ecological functions of the Lower Klamath Wildlife Refuge and the Tule Lake Wildlife Refuge is to filter water through marshes and wetlands. Those processes have been severely disrupted by the Bureau of Reclamation and railroad construction projects. The Wildlife Refuges have been so dewatered by management practices in the Upper Basin, that they fail to effectively address the needs of wildlife and fall far short of providing the filtering and water quality improvement functions that historically because the theorem. ment functions that historically have made the Klamath River such a bountiful source of salmon and other fish and wildlife. These functions must be restored, both for water quality purposes and to serve the original purposes for which the Wildlife Refuges were created. The KBRA does nothing to achieve these objectives, instead it binds the parties to support continued farming in large portions of the Refuges. KBRA § 15.4.3. Farming is inconsistent with the purposes for which the Refuges were created and those activities frustrate the water quality improvement functions that would ordinarily be performed by those wetlands.

5. Avoid Abrogating the United States' Trust Responsibility to Indians.

The KBRA limits tribal water and fishing rights. Under existing law, the United States and the Bureau of Reclamation are obligated to ensure that irrigation projects do not interfere with the tribes' senior water rights.⁵ The United States has a trust responsibility to ensure that its activities would not adversely affect the tribes' fishing rights. The KBRA, if approved by Congress, would change this because in § 15.3.9 the United States agrees that it will not assert tribal water or fishing rights in a manner that interferes with the diversion of water for the Klamath

Irrigation Project as authorized by the KBRA.

KBRA § 15.3.9 was approved by three tribes that agreed to related provisions of the KBRA. However, it is unclear how these waivers will be enforced in the future. It is important to note that the waivers have very broad applications. For example, among other things they will prohibit the signatory tribes from bringing trust challenges against the United States for losses related to water diversions that are associated with the U.S. Bureau of Reclamation's operation of the Klamath Project. They also will limit tribal challenges to loss of harvest opportunities that are associated with the Phase I and II fish restoration activities above Iron Gate Dam and Link Dam, respectively. The KBRA also provides that harvest restrictions will continue until the fish stocks have been rebuilt, which may mean permanent harvest restrictions. The Hoopa Valley Tribe must be assured that these waivers by signatory tribes are in fact enforceable by regulatory harvest restrictions, and not result in transferring harvest pressure to Trinity and other fish stocks. Shifting harvest pressure would undermine the Trinity River fishery restoration program . We are concerned that the KBRA does not provide a way of ensuring that the Federal Government will take the necessary actions to develop regulations and establish needed enforcement programs.

The second problem with the tribal waiver provisions of the KBRA is the unilateral termination or limitation of the government's trust responsibility to non-signatory tribes that would become lawful by enacting KBRA ratification legislation. The National Congress of American Indians and the Northwest Affiliated Tribes have enacted resolutions opposing such unilateral abrogation of federal trust responsibility.⁶ Both the National Congress of American Indians and Affiliated Tribes of Northwest Indians do not oppose any tribe exercising its rights to waive its trust obligations; however the organizations adamantly oppose a non-consensual waiver that is being imposed against a tribe's objections. Most tribes believe this is a mod-

⁵ See Memorandum of Regional Solicitor, Pacific Southwest Region to Regional Director, Bureau of Reclamation Mid-Pacific Region re Certain Legal Rights and Obligations Related to the U.S. Bureau of Reclamation, Klamath Project (July 25, 1995) and Memorandum to Regional Director from Regional Solicitor, Pacific Southwest Region re Oregon Assistant Attorney General's March 18, 1996 Letter (January 9, 1997).

See National Congress of American Indians Resolution PSP-09-051 and Affiliated Tribes of Northwest Indians Resolution ATNI-res-09-63.

ern version of historic termination policies that have been used against tribes and believe that this, if enacted, will re-open wounds between tribes and the United States that have long since been declared as improper and dishonorable U.S. policies toward Native people. We ask this Committee to assure us that no such provision will be enacted into law.

6. Separate FERC Licensing From Water Rights.

The KBRA and the Klamath Hydroelectric Settlement Agreement ("KHSA") contain provisions tying the two Agreements together such that neither can proceed without enactment of legislation that ratifies both. The two Agreements should not be linked. The proposed ratifying legislation (e.g., S. 1851 in the 112th Congress) is, among other things, unnecessarily expensive and damaging. Existing statutes and regulations provide for hydroelectric licenses that incorporate modern environmental laws and protections. Such modern licenses lead to dam removal when dam owners conclude that they can no longer economically operate dams under contemporary environmental laws, as illustrated by removal of the Condit Project near Portland, Oregon in 2011. The parties' agreement in the KHSA to suspend the FERC licensing process indefinitely pending ratification of both Agreements and funding by Congress undermines the environmental benefits promised by existing law and shifts the cost of dam removal from PacifiCorp, on which it rests under existing law, to the public.

The FERC licensing process has been suspended with the tacit participation of California and Oregon and the benign neglect of FERC. Clean Water Act § 401 Certification delay is the means by which FERC has been given a fig leaf to hide its inaction. A § 401 Certification contains standards that the federal licensee must meet in order for the project to meet state water quality standards. A FERC license cannot normally be issued without a § 401 Certification. However, the Act requires that a certification must be issued within one year of license application. Where, as here, the States have entered into a contract to halt preparation of § 401 certification for ten years or more, they have waived their certification right. See KHSA § 6.5. Here, the fish passage and operational conditions already prescribed by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (and upheld by an administrative law judge) impose environmental remediation costs that exceed the benefit of future dam operations under a modern FERC license. Thus, issuance of a new FERC license will produce either dam removal or retrofitting of a project which will provide genuine environmental benefits to the Klamath River system.

Thank you for the opportunity to testify in this matter.

The CHAIRMAN. Thank you very much. Very helpful.

Mr. Troy Fletcher, Executive Director of the Yurok Tribe in Klamath, California.

STATEMENT OF TROY FLETCHER, EXECUTIVE DIRECTOR, YUROK TRIBE, KLAMATH, CA

Mr. Fletcher. Thank you, Chairman Wyden and Senator Murkowski for the opportunity to provide testimony. My name is Troy Fletcher. I'm a member and Executive Director with the Yurok Tribe. I'm here today with Council Members Mattz and Hendrix and our Chairman, Mr. Thomas O'Rourke.

The Yurok reservation is located on the lower 44 miles of the Klamath River. Everything that happens in the Klamath Basin impacts Yurok people. It impacts the health of our fishery, the health of the river.

For Yurok the river is central to who we are and who we are as a people. We provided more detail in our written testimony for your consideration about our dependence. The Yurok are the largest harvester of Klamath River salmon.

For us when it comes to the trust responsibility the United States does have a trust responsibility, but we can wait around for decades asking the United States to fulfill that trust responsibility or we could reach out and try to resolve issues.

We know about conflict in the Basin.

We've been a part of the revolving conflict in the Basin.

We've been in litigation in the Basin.

We've experienced a fish kill in 2002 after the 2001 curtailment at the Upper Basin. That fish kill happened in our home, on our river, on the Yurok Indian reservation. Our people witnessed that carnage first hand. We know what loss is about. We know what impact is about.

Because we know what that's about we sought out an opportunity to work with others in the Basin to try to resolve some of

this long term conflict.

We sought out partnerships with the company.

We sought out partnerships with off-project irrigators, with

project irrigators, with other tribes, with NGO's.

The Klamath Basin agreements represent an opportunity, a pathway forward, to resolve many of these outstanding issues. It's an opportunity. It's an opportunity we hope we don't lose, that we're able to take advantage of.

We understand that people didn't make it across the finish line. Many people around this table and nearly everybody that I can see were part of those negotiations. Some people couldn't make it. But

I ask you to look at those who couldn't make it.

Many people are entrenched. I think you provided some wise council when in your opening statements about moving off entrenchment, moving off entrenchment. So it's one thing to talk to people who are like minded and to get people who are like minded to say, yes, we agree with you.

to say, yes, we agree with you.

It's another thing to reach across the table to those that may not be from your position or see things in your perspective and get

those people to say, yes, we agree with you.

We're proud to say that we struck strong partnerships.

We support our partners throughout the Basin.

We're concerned about the opportunity and the conditions this year for example, could lead to another fish kill in the Lower Basin. We're going to continue to work with the Department of the Interior and other interests to make sure that doesn't happen. We'll take whatever steps we need to to make sure that doesn't happen.

The KBRA presents an opportunity for us to work together into the future and to resolve some long standing issues. We hope that you will work with us to make sure that that gets passed. We're willing to work with and speak to anybody about anything else and about coming to the table and working with us collaboratively.

But people have got to move off their entrenched positions. It's not going to work.

With that, thank you for the opportunity. We look forward to more questions.

[The prepared statement of Mr. Fletcher follows:]

PREPARED STATEMENT OF TROY FLETCHER, EXECUTIVE DIRECTOR, YUROK TRIBE, KLAMATH, CA

The Yurok Tribe provides this written testimony regarding water issues in the Klamath River Basin.

The Yurok Reservation is located on the lower 44 miles of the Klamath River extending from the Pacific Ocean upstream to above the confluence of the Trinity and Klamath Rivers. Yurok people have lived in this area since time immemorial. Any

activities within the Klamath River Basin that affect the health of the Klamath River and its fishery resources have a direct impact upon the Yurok Tribe. The Klamath River Basin includes the Trinity, Scott, Shasta, Salmon, Williamson, Wood and Sprague Rivers including all connected tributaries.

The following principles must be applied when the United States is involved in any issue that affects Klamath River Basin fish, water or other resources:

1) That the United States fully and properly protect and restore all trust resources of the Yurok Tribe. This principle includes the need to manage Klamath River Basin resources such that the Yurok Tribe can fully participate in the subsistence, commercial and ceremonial harvest of all species and races of anadromous and other fish;

2) That the United States abide by and honor the commitments made in the Cooperative Agreement between United States Department of the Interior and Yurok Tribe for the Cooperative Management of Tribal and Federal Lands and

Resources in the Klamath River Basin of California [June 26, 2006];

3) That any activities which affect fish and/or water resources within the Klamath River Basin affect the Yurok Tribe Reservation and the Yurok Tribe whether such activities occur in California or Oregon;
4) That the United States, including the Department of the Interior, must

provide the Yurok Tribe with any proposal, initiative or other concept that affects the interests and resources of the Yurok Tribe;

5) That the United States, including the Department of the Interior, pursuant to the cooperative management agreement mentioned above, principles of the government-to-government relationship, and in proper recognition of the dependence of the Yurok Tribe upon Klamath River Basin fish, water and other resources, will not take any action affecting Yurok interests without the full, timely, and meaningful participation of the Yurok Tribe in all decision and

other processes;
6) That the United States and the Department of the Interior recognize that the Yurok Tribe harvests the vast majority of Klamath River Basin fish as dem-

onstrated by the Tribe's past harvest;

7) That the United States recognize and respect the Yurok Tribe fishery interests as specifically recognized by the 1993 Opinion of the Solicitor, the 1988 Hoopa Yurok Settlement Act and its legislative history and other appropriate

What follows is a description of the Yurok Tribe's dependence upon the Klamath

River and its fisheries, including attached rights.

The Yurok Tribe's message is that there is a continuing and substantial impact to the Yurok Tribe's fisheries and other resources. That impact has dire social and economic consequences on the lives of Tribal members, their families and Tribal communities. Any process regarding the management of Klamath River Basin fish, water or other resources must include the Yurok Tribe. The United States, including the Department of the Interior, must properly share all relevant information in its possession . Any decisions regarding tribal resources must be based upon the Tribe's unique circumstances and strengthen Tribal culture and related priorities.

The Yurok Tribe Dependence on Klamath River Basin Fish

Klamath River fish are irreplaceable to the Yurok Tribe's culture, religion and economy. From time immemorial, Yurok people have depended on the Klamath River and all of its streams and tributaries. The River is central to Yurok society by providing food, transportation, commercial trade, and numerous other activities essential to Yurok life. Throughout history and today, the identity of the Yurok people has been intricately woven into natural environment including the Klamath Basin watershed. Tribal religious and ceremonial practices focus on the health of the world; the Klamath River and its fisheries are a priority. The Yurok Tribe's obligation to protect the fishery has always been understood by Yurok people. The ancestral territory of the Yurok Tribe included coastal lagoons, marshes, ocean waters, tidal areas, redwood and other ancient forests, prairies and the Klamath River. The Preamble of the Constitution of the Yurok Tribe identifies:

Our people have always lived on this sacred and wondrous land along the Pacific Coast and inland on the Klamath River, since the Spirit People, Wo'ge' made things ready for us and the Creator, Ko-won-no-ekc-on Ne kanup-ceo, placed us here. From the beginning, we have followed all the laws of the Creator, which became the whole fabric of our tribal sovereignty. In times past and now Yurok people bless the deep river, the tall redwood trees, the rocks, the mounds, and the trails. We pray for the health of all the animals, and prudently harvest and manage the great salmon runs and herds of deer and elk. We never waste and use every bit of the salmon, deer, elk, sturgeon, eels, seaweed, mussels, candlefish, otters, sea lions, seals, whales, and other ocean and river animals. We also have practiced our stewardship of the land in the prairies and forests through controlled burns that improve wildlife habitat and enhance the health and growth of the tan oak acorns, hazelnuts, pepperwood nuts, berries, grasses and bushes, all of which are used and provide materials for baskets, fabrics, and utensils.

(Yurok Tribe Constitution 1993)

The Yurok Reservation extends for a mile on each side of the Klamath River from the Pacific Ocean to above the confluence of the Klamath and Trinity Rivers. The Reservation stretches for a distance of approximately 44 miles.

Because of the rivers' importance, one of the Tribe's highest priorities is to protect and preserve the resources of the rivers, and in particular, to restore the anadromous fish runs to levels that can sustain Yurok people. When the original Klamath Reservation was established in 1855, the rivers were filled with abundant stocks of salmon, steelhead, eulachon, lamprey, and green sturgeon. Today, the abundance of fish in the Klamath River and its tributaries are only a small fraction of their historic levels. Many species of fish have gone extinct, many other species, such as fall Chinook, are in serious trouble. Nonetheless, anadromous fish continue to form the core of the Yurok Tribal fishery. The Yurok Tribe is pursuing its fishery restoration goals through a fish management and regulatory program, participation in various forums to reach long term solutions to Basin problems and when necessary, litigation. The Tribe has devoted a large share of scarce funding resources to budgets for fishery management and regulation. The Tribe has enacted a fisheries ordinance to ensure that the fishery is managed responsibly and in a sustainable manner and has a longstanding record of resource protection. The Tribe's fisheries department is well respected and recognized as a knowledgeable and experienced fisheries entity in the Klamath Basin. The Yurok Tribal Council and the Tribal members they represent are well known for taking and supporting responsible actions to protect fisheries resources.

The Yurok Tribe's dependence upon Klamath River fish is supported by Tribal harvest data. Since the passage of the Hoopa Yurok Settlement Act in 1988, the Yurok Tribe harvest of Klamath River fall Chinook represents approximately 87% of the 50% Tribal allocation (see Figure 1.)* In terms of the overall allocation of Klamath River fall Chinook, comprised of Tribal and non-Tribal fishing groups, the allocation of fall Chinook for the Yurok Tribe is the largest single allocation of any group, tribal or non-tribal, harvesting Klamath River fall Chinook. The Tribe's allocation is 80% of the Tribal allocation, or 40% of the total allocation of harvestable surplus of Klamath fish.

The Tribe's dependence on Klamath River fish and the expectation that the Tribe would have significant economic opportunities from the fishery was identified by Congress during passage of the 1988 Hoopa Yurok Settlement Act. Unfortunately, the lack of Klamath River fish has prevented the Yurok Tribe from realizing the benefits of the Klamath fishery as intended by Congress. The legislative history confirms that Congress intended to vest in the Tribe property rights to the fishery on the Klamath River. The Committee noted that the Act "will also establish and confirm the property interests of the Yurok Tribe in the Extension, including its interest in the fishery. Senate Report No. 564, 100 Cong., 2d sess. (1988).

Legal Basis of Yurok Fishing Rights

The fishing rights of the Yurok Tribe are well-established as a matter of federal law. The Yurok Reservation, created pursuant to an 1855 act of Congress, was established within the Yurok Tribe's aboriginal homeland primarily to provide a territory in which the Tribe's fishing-based culture and way of life could thrive and continue to exist. This fact has been recognized repeatedly since the Reservation was established—by the Departments of the Interior and Commerce, the United States Supreme Court, the lower federal courts, and the California courts. See, e.g., Mattz v. Arnett, 412 U.S. 481, 487 (1973); Donnelly v. United States, 228 U.S. 243, 259 (1913); Parravano v. Masten, 70 F.3d 539, 545-46 (9th Cir. 1995), cert. denied, 116 S. Ct. 2546 (1996); Blake v. Arnett, 663 F.2d 906, 909 (9th Cir. 1981). As Justice Blackmun observed in Mattz v. Arnett, the original Klamath River Reservation, the precursor to the current Yurok Reservation, "abounded in salmon and other fish" and was in all ways "ideally suited for the Yuroks." 412 U.S. at 487.

^{*}All figures have been retained in committee file.

The Yurok Tribe's right to take fish on the Klamath River is protected and guaranteed by federal law. The Ninth Circuit Court of Appeals confirmed that the executive orders that created the Yurok Reservation vested the Yurok Tribe with "federally reserved fishing rights." Parravano v. Masten, 70 F.3d 539, 541 (9th Cir. 1995), cert, denied, 518 U.S. 1016 (1996). The same court has aptly observed that the salmon fishery of the Yurok Tribe is "not much less necessary to the existence of the Indians than the atmosphere they breathed." Blake v. Arnett, supra, at 909. The Solicitor of the Department of the Interior has determined that the Yurok Tribe is entitled to a sufficient quantity of fish to support a moderate standard of living, or 50% of the Klamath fishery harvest in any given year, whichever is less. Memorandum from Solicitor to Secretary of the Interior, No. M-36979, October 4, 1993. The right includes fishing for subsistence, commercial and cultural purposes. As the court in Parravano noted, the purpose of the Yurok Reservation was to enable the Yurok people to continue their fishing way of life. The River and its fish are undeniably the cultural heart of the Yurok people.

The Klamath Agreements

The Yurok Tribe has been involved in Klamath Basin conflict since the Tribe formally organized in the early 1990's. The Tribe's interest flows from the reliance and responsibilities Yurok people have on and to the Klamath River and its fish. The Tribe's social and economic structure has been decimated, in large part, due to the decimation of the Tribe's fisheries. The Yurok Tribe is the single largest harvester of Klamath River fish. No one single factor accounts for the loss of our fish; these factors have combined with each other to result in the poor situation we find today.

The Yurok Tribe has worked hard with environmental, agricultural, county, tribal, State and Federal interests to address many of the long standing issues that cause conflict in the Klamath Basin. The result of hard work by all the Parties was the historic signing of the Klamath Agreements in Salem Oregon in 2010 by these parties; the Klamath Hydropower Settlement Agreement and the Klamath Basin

Restoration Agreement.

Combined, these agreements address the need to remove Klamath River dams, provide funding for fisheries restoration and provide more water for environmental purposes (fish, wildlife, refuges, etc.). These agreements in turn provide more reliable water for agriculture in the upper Klamath Basin and more certainty to the power company regarding the fate and operation of the Klamath hydropower project.

The Tribe urges the Congress to pass legislation that authorizes and implements

the Klamath Agreements.

It is critical that the foundation of the Klamath Agreements remain intact through the legislative process. The Yurok and other Parties negotiated agreements to resolve a number of complex issues that have been the center of conflict in the Klamath Basin for many years. These agreements contain support for funding various activities necessary to address issues of conflict. If the budget or other obligations attached to these agreements change, then the Yurok support for these agreements change as well. It is important that any legislation to authorize and implement the Klamath Agreements not change the timing or other actions necessary to implement the agreements signed by the Yurok Tribe and other Parties.

The Klamath Agreements do not solve all the water and fisheries issues in the Klamath River Basin. They were never intended to do so. The Parties realized that it would not be possible to solve the issues on the Shasta, Scott and Trinity Rivers. What the agreements do is to begin to address some of the most immediate and serious issues in the Klamath Basin. The Yurok Tribe will continue to work with other

interests to address outstanding issues on these rivers.

Some interests claim that the Klamath Agreements terminate tribal rights and the federal trust responsibility to Klamath Basin Tribes. As these positions are considered we ask that individuals appreciated that the Klamath Tribes with the most significant reliance on fish from the Klamath side of the Klamath River Basin support these agreements. The agreements are an expression of tribal sovereignty and self-determination. Attached to this testimony is a review of the Klamath Agreements as it pertains to tribal rights. A number of sections in the Klamath Restoration Agreement address tribal rights. Below is an important section for the Yurok Tribe:

2.2.11. No Determination of Water Rights by the Agreement

No water rights or water rights claims of any Party are determined or quantified herein. No water rights or potential water rights claims of any non-party to the Agreement are determined herein. No provision of this Agreement shall be construed as a waiver or release of any tribal water or

fishing rights in the Klamath River Basin in California, including claims to such water or fishing rights that have not yet been determined or quantified. The Secretary will not take any action in any proceeding within the adjudication of Klamath Basin water rights in the State of Oregon that eliminates the existence or quantifies the amount of any tribal water or fishing rights in California.

Trinity River Issues

The Yurok Tribe depends upon the health of the Trinity River and its fisheries resources, as it is the largest Tributary to the Klamath River.

The Yurok Tribe supports that no less than 50,000 acre-feet shall be released annually from the Trinity and made available to Humboldt County and downstream users as was provided for in the 1955 Act regarding the Trinity River.

It is critical that water from the Trinity River be made available during dry water years when in-river run size of Fall Chinook is projected to be large. The Yurok Tribe and others have a serious concern that water from the Trinity River is necessary to protect ESA and other species of fish as they enter the Klamath River this fall. Projected Fall Chinook run size returning to the Klamath River will be the second largest. At the same time, the Klamath Basin is in a dry water year. This combination of factors is a concern to the Yurok Tribe, as there is a risk of another fish kill in the Klamath River similar to 2002. Everyone associated with the Klamath Basin should share that concern.

The CHAIRMAN. Very good. Thank you.

Commissioner Mallams, you're next. I appreciate you making the trip. I also want to tell you I was very appreciative of the meeting that we had after the town hall meeting in Klamath Falls when you and several colleagues filled me in to a greater extent on your point of view. So we appreciate that.

Please proceed.

STATEMENT OF TOM MALLAMS, COMMISSIONER, POSITION ONE, KLAMATH COUNTY, KLAMATH FALLS, OR

Mr. MALLAMS. Thank you for the opportunity to speak today and especially, Senator Murkowski also, for being here to address this very important issue.

Today I want to make sure that I recognize that some people.

The CHAIRMAN. Commissioner, do you have your microphone on or you may just have a soft voice.

Mr. Mallams. I need it to be closer.

The CHAIRMAN. Pull it a bit closer.

Mr. Mallams. OK. Is that better? The Chairman. Yes. Good. Mr. Mallams. Thank you.

Now I do have to recognize that some people say I have a conflict of interest here because I am an irrigator, a very small irrigator. I pump water out of the ground. So I want to make sure to people to recognize that.

But I'm here as an elected County Commissioner. I am very frustrated with the division that has happened in our community for many, many years. One of the people, one of the stakeholders that have been left out of this is the citizens in whole.

I represent all the citizens of Klamath County and do other elect-

ed representatives. In last 4 years have been many elections held in our area. The common denominator has been those that support dam removal and the KBRA.

The Chairman. I can barely hear you which makes me think that a bunch of other people may have a challenge too.

Mr. Mallams. Yes.

The CHAIRMAN. So if you can speak right into it.

Mr. Mallams. OK.

The Chairman. There we go. Mr. Mallams. That's better. OK.

The CHAIRMAN. Good.

Mr. Mallams. Anyway there have been many elections happening in our area that have shown that the people do not want this direction right now. They are not in favor of this. The votes have been anywhere from 65 to 80 percent in Northern California and Southern Oregon.

We do believe there's no doubt we need a settlement. The current direction with dam removal and the current KBRA just doesn't fit the bill. I recognize, hopefully recognize, all the very good relationships that have been forged through this process. I understand

that. I don't think that has to go away.

I think if they are very strong relationships they will be able to weather a slight deviation from the course that they've been taking. The KBRA, by itself, was a very noble cause and still is. I believe it still is and still can be. This settlement has to happen for

So from our perspective what did—we've been asked what our next step? There are other options out there that have been systematically ignored through this whole process. That's—there's lots of off stream storage. The Federal Government getting out of the

Federal project which was originally designed that way.

There's lots of other options out there. Dredging the lake in certain areas and juniper removal and removing the Caspian Terns and the birds that feast on the sucker fish. Until the current direction changes though, these other options will never be allowed. In those KBRA meetings it was a very, very definite direction. KBRA, as it was in dam removal, was the only option that was being put

I look at this as like a big family. Our Klamath Basin is a large family with very different structures within our many people whether tribal members, project irrigators or whatever. We're all aunts and uncles, cousins, whatever. We need to get together and continue this dialog and make sure that this agreement really does happen that we can all get together and make sure that we all get something out of this.

Everybody has to give, I understand that. I'm wholeheartedly on that side. It just has to be a balanced approach. I don't feel it's there yet. I still am an optimist that it can happen and it must

happen.

Thank you again for holding this hearing.

[The prepared statement of Mr. Mallams follows:]

PREPARED STATEMENT OF TOM MALLAMS, COMMISSIONERS POSITION ONE, KLAMATH COUNTY, KLAMATH FALLS, OR

First, I want to thank Oregon's Senator Ron Wyden for putting this Committee Hearing together. Bringing interested parties together can implement positive discussion seeking that illusive settlement on generational water conflicts. In 200 I, our community was united when water was shut off in the Reclamation Project. U.S. Congressman Walden, along with over 15,000 citizens, helped with buckets of water being pulled out of the Lake Ewauna, and poured into the "A" Canal, protesting this action.

As a Klamath County Commissioner, I watch in total frustration, as our community has been divided by the age old method of "divide and conquer." As far as the dam removal and KBRA is concerned, the great majority or the Klamath River Basin , has been very consistent in the direction they DO NOT want to go.

The areas elections in the last four years have proven this beyond any doubt. All three County Comm issioners have been replaced, local State Senator Doug Whitsett and State Representative Bill Garrard retained their seats. Gail Whitsett as a newly elected State Representative. All these elections were won by a margin between 65-73 percent. The common denominator was that the winners opposed dam removal and the KBRA. Yes, there were other issues, but this was the most prominent issue that was the main focus. Siskiyou County Measure G also passed opposing dam removal by 80 percent.

As we speak, irrigators in the upper basin are now being denied the irrigation

water needed to keep their crops and animals alive.

The Klamath River Basin is comprised of families of all shapes and sizes. Our communities are full of families that love our basin. They want, more than anything else, to stay here, working and raising their families as the generations before have

Our Communities have seen the devastation of the timber industry. Even with this loss, our citizens continued on, refusing to give in or giving up. Our sometimes harsh environment and numerous conflicts help create a very resilient people. The true spirit of the "American Way" still prevails in the Klamath River Basin. Often times, it seems as though the Klamath River Basin is "ground zero" for out of control regulation on our ability to use our Natural Resources. What ultimately happens here in the Klamath Basin will affect our entire nation.

So what is the next step?

In many ways, our Klamath River Basin is like a very large, extended family. We have many diverse members, with different strengths, weaknesses, life experiences, and desired outcomes for the issues facing all of us. Just because we may not agree with one another 100 percent of the time, does not mean that we cannot find common ground. Just like families do, we must focus on moving forward, finding that elusive balance.

The KBRA itself began as a noble cause. Numerous improved relationships came out of the KBRA process. Unfortunately, dam removal and the KBRA have obviously, failed to deliver what is ultimately necessary for a true, comprehensive settlement, embraced with Basin Wide and Congressional support. In its present form,

it cannot go anywhere!

There are numerous options that can address the water issues in the Klamath Basin besides dam removal and the current KBRA. Unfortunately, all these viable options were systematically ignored. Being forced to accept dam removal and the KBRA as the absolute only option, ignoring all other directions is unacceptable. Deep, Off stream storage, dredging Klamath lake, juniper removal and the list goes on and on.

We must regroup! We must keep striving ahead especially in these troubled times. We must follow the example of our "Founding Fathers" in never giving up.

The CHAIRMAN. Thank you. I very much like your analogy to family. I won't break into song, but that's constructive.

[Laughter.]

Mr. MALLAMS. You don't want to hear me sing. So I guarantee

The CHAIRMAN. Alright.

Let's go next to Michael Kobseff, Supervisor, District 3, Siskiyou County Board of Supervisors.

Let's see that would put Michael up there. OK.

Your mic isn't on either.

STATEMENT OF MICHAEL KOBSEFF, VICE-CHAIR, BOARD OF SUPERVISORS, SISKIYOU COUNTY, CA

Mr. Kobseff. How about that?

The CHAIRMAN. There.

Mr. Kobseff. There we go?

The CHAIRMAN. Yes.

Mr. Kobseff. Thank you, Senator Wyden for extending this op-

portunity to participate in this hearing.

For Mt. Shasta this past year has been the driest year for the past century. Emphasizing as forcefully as nature can, that water and water quality are vital for agriculture, salmon and our very existence. But there is no connection between dam removal and the

Upper Basin water supplies.

Three of the 4 dams on the Klamath River proposed for removal are in Siskiyou County which is why our county is leading the pursuit of alternative solutions that will actually provide more water for farms, more fish for tribes and fishermen while retaining our existing source of clean hydroelectric power. There are options other than dam removal to pursue. New mitigation measures have been implemented by PacifiCorp since 2010 and these measures have been—are improving water quality and fish habitat.

have been—are improving water quality and fish habitat.

These improvements are evidenced by population trends with nearly 30 thousand Chinook salmon returning to the Shasta River in 2012, the highest number since Basin wide monitoring began in 1978. The subsequent result was a record out migration this year

of nearly 5 million juvenile salmon.

However there are more ambitious and promising actions that can be taken into benefit for fisheries and water supplies. As an example, for 15 years Siskiyou County has advanced the Five County Salmonid Conservation Program which has contributed to the turnaround in fish population trends. Siskiyou County has been working with NOAA fisheries and key stakeholders to develop a Coho supplementation program on the Shasta River, a major tributary of the Klamath River.

Siskiyou County supports the development of a trap and haul pilot project for fish and passage, for fish passage, around the Lower Klamath dams. Trap and haul is currently being pursued by NOAA fisheries in the Bureau of Reclamation on the other side of our county on the Sacramento River. The potential of existing prime salmon habitat should be maximized by properly managing national forest system lands in the Klamath River watershed.

The Long Lake Valley Water Project, storage project, with 350 thousand acre feet of water storage should be reconsidered with a review of the cost benefit analysis in context with the cost of dam removal and the watershed restoration. The interim measures that Pacificorp has already implemented should be continued and ex-

panded.

As the committee considers how to address Klamath Basin issues it should not overlook the effects of forest management on water supply and water quality. The overgrown forest conditions that result in bark beetle infestations and catastrophic fires are the same conditions that are stealing more water from our streams and rivers, water that would otherwise benefit farms and fish.

Thank you.

[The prepared statement of Mr. Kobseff follows:]

Statement of Michael Kobseff, Vice-Chair, Board of Supervisors, Siskiyou County, CA

Siskiyou County, home to approximately 150 miles of the Klamath River and three of the four dams that were proposed for removal, fully recognizes that there

are longstanding water issues that must be addressed in the Klamath Basin. Our county is leading the pursuit to find alternative solutions to dam removal that will provide farms with more water, tribes and commercial and recreational fishing interests with more fish, and still retain our existing sources of renewable, clean hy-

droelectric power.

The Klamath Hydroelectric Settlement Agreement (KHSA) and the Klamath Basin Restoration Agreement (KBRA), the two agreements reached by certain stakeholders in 2010 to address some of the longstanding water issues in the Klamath Basin, raised great expectations about finally achieving "peace on the river." However, with implementation of these proposals at a standstill, the agreements have actually become an impediment to addressing the basin's water issues when they are pointed to as the one-and-only Klamath River solution.

Alternatives to Dam Removal

A Klamath River solution must equitably spread its costs and risks among the many stakeholders. As currently proposed, the risks and burdens of mitigating any failings of a dam removal experiment will fall upon the water users in Siskiyou County's Scott and Shasta Valleys. A viable solution must also achieve its goals through scientifically defensible means. Here, there is no connection between dam removal and Upper Basin water supplies, except for that artificially created by the KHSA and KBRA. For these and many other reasons, it is time to advance alternatives to dam removal and to move toward measures that will be able to garner the degree of popular support required to finally get something done for the Klamath Basin.

The new mitigation measures implemented by PacifiCorp under the KHSA are a starting point for reassessing alternate means of improving Klamath water quality and fisheries. These measures are improving both water quality and fish habitat and are a reminder that there are options other than dam removal yet to be pursued. PacifiCorp's "interim" mitigation measures include:

- A Habitat Conservation Plan under the Endangered Species Act that will minimize the effects of project operations on coho salmon, which includes:
 - -Habitat enhancement through a Coho Enhancement Fund and grant program -Iron Gate Reservoir turbine venting to increase downstream levels of dissolved oxygen

Increase the variability of downstream releases from Iron Gate oResearch on

Klamath River fish disease

- A similar Habitat Conservation Plan for sucker species, including
 - -A Sucker Conservation Fund

-Reoperation of the East Side/West Side development to avoid take

- · A hatchery and genetics management plan to support coho recovery by conserving genetic and behavioral diversity
- Gravel enhancement on the Klamath River between J.C. Boyle Dam and Copco Lake
- Nutrient reduction projects in the Klamath watershed

PacifiCorp's June 2012 Implementation Report encouragingly reports progress is being made with "various measures that are resulting in improvements to water quality and fish habitat." This observation is supported quantitatively by trends in fish populations. Nearly 30,000 Chinook returned to the Shasta River in 2012, the highest number since basin-wide monitoring began in 1978. The subsequent result was a record out-migration of nearly 5 million juvenile salmon this year.

Beyond the "interim" measures that are already evidencing successful effect in the watershed, there are a range of much more ambitious and promising actions that

can be taken to benefit fisheries and water quality. As examples:

- for 15 years, Siskiyou County has advanced the Five Counties Salmonid Conservation Program, which has contributed to the turn-around in fish population
- Siskiyou County has been working with NOAA Fisheries and key stakeholders to develop a coho supplementation program on the Shasta River, a major tributary of the Klamath River;
- Siskiyou County supports the development of a trap and haul pilot project for fish passage around the lower Klamath dams. Trap and haul is currently being pursued by NOAA Fisheries and the Bureau of Reclamation on the other side of our county for the Sacramento River;
- the potential of existing prime salmon habitat should be maximized by properly managing National Forest System lands in the Klamath River Watershed;

- the Long Lake Valley water storage project with 350,000 acre-feet of water storage should be reconsidered, with review of the cost/benefit analysis in the context of the costs of dam removal and watershed restoration; and
- the "interim measures" that PacifiCorp has already implemented should be continued and expanded.

Value of Klamath River Dams

In considering alternatives to dam removal, it is important to remember that there are important reasons to maintain the dams. The dams are valuable, existing sources of renewable, clean electrical power. The dams, being practically immune to increases in the cost of fossil fuels, have kept electricity costs down for our region's farmers and ranchers.

These dams also provide local and regional recreational opportunities, which attract tourists to the area. The dams transformed former marginal habitat into world-class fisheries. The lakes behind the dams also provide substantial sanctuary to many kinds of birds. This habitat will be lost with the removal of the dams. The dams serve an important health and safety function, allowing the County to control potentially hazardous flooding of its river valleys and to flush the river in times of drought. Before the dams had been constructed, Siskiyou County suffered both immense flooding problems and drought. The dams have provided the County with an important mechanism to control peak flood conditions, saving lives and property from catastrophic flooding events, and reducing the cost of insurance for our residents. In times of drought these dams allow the flushing of the river to reduce algae and to provide instream flows for salmon and other aquatic life. If the dams are removed this important function will be lost.

The dams improve water quality generally by providing a settlement basin for naturally occurring phosphates and other detrimental elements products in the water. The dams also cool warm water coming in from the upper high desert basin in Oregon.

The effectiveness of the hatchery at Iron Gate is dependent on the use of cold water that is obtained by drawing water from the lower levels of the reservoir. The stratification of layers of water in the dam is an important adjunct function of the dam and is responsible for the hatchery's historically acknowledged success in producing consistently enhanced salmon populations. The hatchery at Iron Gate produces over six million salmon smolts annually.

Finally, an important cultural function of the dams is the protection they provide for historic Native American gravesites. Leaving the dams in place will protect the historic gravesites of the Shasta Tribe from the elements and from potential pillaging. Removal will violate both the cultural aspects of the Shasta Nation and federal policy.

Beyond the loss of important functions served by the dams, Siskiyou County remains concerned about other potentially negative impacts of dam removal on the region. In a recent election, nearly 80% of voters in Siskiyou County expressed their opinion that the dams should not be removed.

Siskiyou County continues to have grave concerns about the release of nearly 20 million cubic yards of sediments behind the dams, which is loaded with toxic minerals. This release may result in massive destruction of the ecosystem, a fact recognized by the Department of the Interior (DOI), as well as its studies, although DOI claims the damage may be short lived. DOI's studies acknowledge that we will not know if restoration through dam removal is successful until possibly 2050. Although on considerably smaller scales, one need only look to the damage done by the removal of other dams (Elwha, Condit, Gold Ray, Savage Rapids) to see the destructive consequences of dam removal. This damage to the environment from sediment release is rationalized on the basis that salmon will have "access" to approximately 35 miles of historically inconsistent and marginal habitat.

Loss of the dams, and their water storage, will ultimately result in demands being made on farmers and ranchers to further reduce their use of water, eventually curtailing late season uses, resulting in uneconomic ranch practices. Except for a minority of agricultural interests receiving promises of water, the majority of agriculture and ranchers will suffer significant losses.

Issues of Scientific and Scholarly Integrity

The KHSA requires the Secretary of the Interior to make a "Secretarial Determination" as to whether dam removal should proceed. The agreement promised that the Secretarial Determination would be made only after thorough review and careful scientific scrutiny. Section 3 of the KHSA requires the Secretary to review existing studies and data, undertake new "appropriate" studies, and comply with the National Environmental Policy Act (NEPA), among other things. Since this review

began, more than 200 studies, reports, and other documents have been presented to the public on the klamathrestoration.gov website. All of this information was supposedly synthesized and summarized in the Klamath Dam Removal Overview Report for the Secretary of the Interior: An Assessment of Science and Technical Infor-

mation (Overview Report).

Despite the tremendous amount of time and taxpayer money that has been devoted to this process, the Overview Report and underlying materials are completely overshadowed and tainted by former Secretary Ken Salazar's publicly-announced, predetermined outcome: dam removal will not fail! Staff from the Interior Department and its subsidiary agencies received clear direction as to where they needed to end up. Lest there be any doubt, others need only look to the examples of the Bureau of Reclamation's removal of its scientific integrity officer or the proposal to terminate the science unit in the Klamath Area Office.

The Overview Report is replete with examples of bias, distortion, and circumvention of legal, scientific, and scholarly standards, including the following examples:

1. False Choices Under the Dams-In Scenario.—The Overview Report compares two scenarios described as the "dams in" and the "dams out" alternatives. However, a false choice is presented by defining the dams-in scenario as indefinite operation under annual FERC licenses without implementation of any of the protection, mitigation, and enhancement measures that have already been prescribed for a new license. This false choice makes the dams-out scenario seem far better by comparison than it actually is and is an over-arching example of the bias that runs throughout the Overview Report.

2 Adaptive Management vs. Inflexible Management.—The dams-out scenario makes great fanfare about its "commitment to adaptive management." In stark contrast, the dams-in scenario is constrained to a locked-in, minimalist approach. Once again, a false choice is presented to shade the report toward dam

removal

- 3. False Assumption of Status Quo Fish Populations with Dams In.—The Overview Report goes to great lengths to emphasize the uncertainty of trends in fish populations under a dams-in scenario. Based upon that uncertainty, the report then leaps to the assumption that the "current status" of "markedly declined" fish populations will continue into the future. The past year's record-level returns of Chinook salmon belie that erroneous assumption. The report ignores the reality of improving population trends resulting from TMDL implementation, fish flows, and basin-wide habitat enhancement efforts, including installation of fish screens on water diversions and the Five Counties Salmon Program implementing best management practices for road construction and maintenance.
- 4. Omission of Ocean Conditions from Analysis.—The Interior Department has taken the position that ocean conditions that affect salmon populations are beyond the scope of analysis for the determination regarding dam removal. The intentional omission of this predominant element further skews the equation in favor of dam removal. As evidenced by the record numbers of salmon that returned to the Klamath system last year, factors such as the Pacific decadal oscillation have a much greater influence on population trends than having the dams in or out.

5. Nonuse Values and Net Economic Benefit.—The Overview Reports paints a picture of net economic benefit of between \$14 billion and \$84 billion will full facilities removal. However, the only reason a net benefit can be claimed is by including "nonuse values" that are claimed to be over \$98 billion dollars. Without these phantom benefits, the proposal for full facilities removal has negative

economic results.

6. Inflated Benefit Estimates.—While making passing reference to varied results from different studies, the Overview Report states that there will be an 81 percent increase in Chinook Salmon. In reality, the expert panel that reviewed Chinook provided a list of independent factors that would all have to be successfully addressed to achieve substantial gains in Chinook populations, including water quality, disease, colonization of the upper basin, harvest and escapement, hatchery influences, predation, climate change, fall flows, and dam removal impacts. This list does not even include ocean conditions which, as noted above, are a predominant factor.

The Overview Report is only the latest example of how the KHSA and KBRA have sacrificed science and an honest assessment of ecosystem conditions and processes in favor of a predetermined outcome based on a belief that removal of the lower four dams on the Klamath River is a condition precedent to enhancing fisheries. That is clearly not the case, as the population trends discussed above firmly demonstrate.

The CHAIRMAN. Thank you very much.

Our next witness will be Mark Lovelace, 3rd District Supervisor of Humboldt County in Eureka.

STATEMENT OF MARK LOVELACE, HUMBOLDT COUNTY SUPERVISORS, EUREKA, CA

Mr. LOVELACE. Good morning, Chairman Wyden. I appreciate the opportunity to provide testimony on behalf of our county's 135 thousand residents.

Humboldt County lies on the rugged far northern coast of California, much closer to Oregon than we are to San Francisco. Virtually the entire 16 thousand square mile Klamath Basin drains through Humboldt County for a distance of 50 miles before it meets the sea. That's an area larger than 9 States. Everything that happens in the Upper Basin impacts our downstream communities.

The mighty Klamath River has historically been the third most productive salmon fishery in the United States outside of Alaska. This powerful economic engine drove the coastal economies of Northern California and Southern Oregon and blessed us with abundant salmon that supported our commercial, sport and tribal fisheries. Today, however, over 90 percent of the river's salmon habitat has been destroyed or blocked by aging dams with more than 420 miles of historic stream habitat completely inaccessible.

Our once abundant Klamath Chinook salmon have declined sharply from nearly 900 thousand to as few as 35 thousand or less in some years. With this decline has come the shuttering of commercial processing facilities, the loss of onshore jobs and a dwindling fishing fleet. With each boat lost an independent, family owned, small business now gone.

It's important to note that our downstream communities did not have the benefit of environmental impact studies, economic analyses and Senate hearings before our natural wealth, in the form of water, was taken from us. The Klamath Basin has suffered through decades of conflict, chaos and crisis as a result of these dams with no stability for either the downstream fisheries or the Upper Basin farmers. Demand for water exceeds supply resulting in abrupt water shut offs to irrigators, devastating fish kills and commercial fishing closures.

The Federal Government has had to pick up the tab for these conflicts spending hundreds of millions of dollars on drought relief, disaster assistance and lawsuits just to manage an ongoing crisis that leaves no one happy. If nothing is done, the Federal Government should reasonably expect to spend more over time than is proposed by these agreements without fixing the underlying problems and with nothing to show for it in the end.

Humboldt County worked with a broad coalition of some 30 other Klamath stakeholders for 5 years to develop a cooperative approach to managing the Basin's resources and permanently fixing these unresolved problems. These Klamath agreements do far more than remove the 4 dams. They create a comprehensive framework to share resources to improve river flows, to restore this vital river and to end the persistent cycle of crisis, conflict and fiscal waste of unending spending without an end goal.

These agreements are the very model of a well crafted compromise. No one party gets everything they want. But the broad majority gets something they can live with. The entire Basin, for the first time ever, gets stability.

Humboldt County is committed to supporting the Klamath agreements, to maintaining the partnerships we've built throughout the Basin and assisting with the implementation of these agreements over the next 50 years.

I thank you for the opportunity to provide this testimony. [The prepared statement of Mr. Lovelace follows:]

Prepared Statement of Mark Lovelace, Humboldt County Supervisor, Eureka, CA

The County of Humboldt appreciates the opportunity to provide this statement for the record on water resources issues in the Klamath Basin. Our County is a signatory party to both the Klamath Hydropower Settlement Agreement (KHSA) and the Klamath Basin Restoration Agreement (KBRA). Federal implementation of these agreements would result in removal of the four lower-most dams on the Klamath River by 2020 and would create a comprehensive framework and mechanisms to achieve major watershed restoration through improved river flow regimes, habitat rehabilitation, improved water quality, and fisheries reintroduction. The County of Humboldt strongly supports the Klamath settlement agreements, as they provide an unprecedented opportunity to resolve longstanding disputes involving dams, water diversions, and salmon runs in the Klamath Basin.

Humboldt County

Humboldt County lies on the rugged coast of far-northern California, some 270 miles north of San Francisco. Humboldt is isolated from the rest of the State by mountainous terrain carved with steep river canyons, accessed only across twisting and temperamental mountain roads. Our isolation earns our region its nickname, "the Lost Coast", and endows us with a strong sense of self-reliance. Our economy has long been dependent upon our natural wealth, the hard work of our multigenerational timber, farming and ranching families, and our prosperous coastal fisheries.

More than half of the County's 135,000 residents live in unincorporated rural areas, with the remainder dispersed across seven small cities, including the seaport city of Eureka (population 27,191) and the tiny fishing village of Trinidad (population 367), the fifth smallest city in California.

The Klamath Basin spreads across 15,751 square-miles of southern Oregon and northern California; an area larger than nine states. Virtually the entire basin drains through Humboldt County for the last 50 miles of its 254 mile journey from its Oregon headwaters to the Pacific Ocean. Whatever happens to the Klamath River in the upper basin impacts our downstream coastal communities.

Klamath Fisheries History

The mighty Klamath River has historically been the third-most-productive salmon fishery in the U.S, outside of Alaska, surpassed only by the Columbia River in Oregon and the Sacramento-San Joaquin Rivers in California. The Klamath's location provides an important mid-point linkage between the aforementioned West Coast river systems. This powerful economic engine drove the coastal economies of northern California and southern Oregon, blessing us with abundant salmon that supported our commercial, recreational and tribal fisheries.

ern California and southern Oregon, blessing us with abundant salmon that supported our commercial, recreational and tribal fisheries.

Beginning in 1918 and continuing through 1962, the Klamath Hydroelectric Project constructed a series of dams on the Klamath River, none of which included any provision for fish passage, effectively cutting off hundreds of miles of Fall and Spring Chinook and steelhead spawning habitat in the Upper Basin.

In the reservoirs behind the dams, the cold, swift-running waters of the Klamath are brought to a standstill, allowing the water temperature to warm well above tolerable levels for cold-water salmon. The still, warm waters also serve to concentrate nutrients and to encourage the explosive growth of toxic blue-green algae blooms and other fish pathogens, which are now endemic in the Klamath Basin. These pathogens were implicated in the September 2002 fish kill in which as many as 64,000 Chinook salmon were killed in the lower Klamath. This preventable disaster was the largest fish kill in the history of the Northwest.

Today, however, over 90 percent of the river's salmon habitat has been destroyed or blocked by these aging and obsolete dams. More than 420 miles of historic stream habitat is now completely inaccessible to returning salmon. Over the past 60 years, once-abundant Klamath Chinook salmon have declined sharply, from a historic average of nearly 900,000 to as few as 35,000 or less in some years. Coho salmon are listed as endangered under the Endangered Species Act (ESA), and other species such as green sturgeon and Pacific lamprey-are declining as well.

In the late 1970's, commercial troll ocean fisheries in the Klamath Management

In the late 1970's, commercial troll ocean fisheries in the Klamath Management Zone landed an average of over 3.6 million pounds of salmon. For the period from 2005 through 2009, that number had plummeted to an average of just 124,000 pounds, representing a decline of 92 percent for the Port of Brookings, and 98 per-

cent for the ports of Eureka and Crescent City (see Table 1).

This precipitous decline has brought the shuttering of commercial processing facilities, the loss of on-shore jobs, an ever-dwindling fishing fleet, and pain and suffering among the families in our fishing communities. Each fishing boat lost represents an independent, family-owned small business that is now gone. Coastal communities in Northern California and Southern Oregon have had to deal with the environmental and economic impact of these dams for many decades, yet these communities did not have the benefit of environmental impact studies, economic analyses, and Senate hearings before their natural wealth, in the form of water, was taken from them.

The impact of the decline in Klamath salmon is felt far beyond the ports of Eureka, Crescent City and Brookings. As previously stated, the Klamath River creates a 'bridge' between salmon populations from the Columbia and Sacramento-San Joaquin River systems. Additionally, Klamath salmon inter-mingle in the ocean with other salmon stocks from as far away as Monterey, CA to central Washington. In this way, declines in Klamath Chinook salmon stocks can affect fisheries across the entire West Coast, triggering ocean salmon season closures over most of the northern California and Oregon coastline and other restrictions as far away as southern Washington.

The PacifiCorp Dams

The lower four dams on the Klamath River (Iron Gate, Copco 1, Copco 2, and JC Boyle) are not a Federal project. Rather, these dams are owned by PacifiCorp, a privately-owned utility company. These low-power hydroelectric dams do not provide any irrigation water, nor do they provide flood control. They are neither large nor particularly powerful, generating a combined annual average of just 78 megawatts (MW) for some 70,000 customers in northern California and southern Oregon, and representing less than two percent of PacifiCorp's electricity portfolio. By comparison, a single, more-modern facility could be expected to generate 1,000 MW or more.

As noted previously, these dams were all built without any provision for fish passage, which would make them illegal by any modern standards. The license to operate these dams expired in 2006 and, as a part of the Federal Energy Regulatory Commission's (FERC's) relicensing process, PacifiCorp would be required to retrofit all four dams with fish passage and make other upgrades, at a cost of at least \$350 million. Fish passage would also further limit the dams' energy production capacity, as it would reduce the amount of water available for energy generation.

The cost of full dam removal is estimated to be \$291 million, making it a far-bet-

The cost of full dam removal is estimated to be \$291 million, making it a far-better proposition for PacifiCorp's ratepayers. PacifiCorp continues to operate these dams under a year-to-year license, pending Congressional approval and implementation of the Klamath Agreements. Under the agreements, PacifiCorp and its ratepayers would bear full responsibility for the costs of dam removal, up to \$200 million. PacifiCorp has already begun collecting a surcharge from its ratepayers to cover this anticipated cost. Any costs beyond that amount would be borne by the State of California. No Federal money would be used for dam removal.

History of Conflict

As with many waterways in the western United States, water rights in the Klamath basin have been oversubscribed. In most years, there is not enough water to meet the demands of all users and still provide for the needs of salmon and downstream communities. This essential truth has led to many decades of fighting in the Klamath basin, but all of that conflict has failed to yield more water.

Klamath water conflicts have been the focus of regulatory proceedings and litigation in various venues, without resolution. These conflicts intensified in the late 1980s and early 2000s with listings of threatened and endangered fish species, abrupt water shut-offs to irrigators, blooms of toxic algae, water disease outbreaks, devastating fish kills, and commercial fishing closures.

In the midst of the 2001 drought, the Bureau of Reclamation (BoR) terminated irrigation contracts to some 1,400 upper basin farmers to protect the endangered coho on the basis of biological opinions issued under the ESA. The farmers and their supporters staged street protests in Klamath Falls, Oregon, and some took control of the head gates on the project's canals. When local police refused to arrest them, federal agents had to patrol the canals to prevent further water seizures

A year later, the Bush administration issued a controversial new biological opinion in which it determined that water diversions were "not likely to adversely affect" coho salmon for a below-average water year. BoR subsequently reduced the amount of water it would release downriver by half, diverting the balance to farmers

through the project's canals.

By September of 2002, the low flows, warm water temperatures, and an exploding population of parasites killed as many as 64,000 fish in the lower Klamath. It was

the largest fish kill in the history of the Northwest.

Responding to these recurrent crises, the Federal government has spent at least \$181.4 million since 2001 on emergency drought relief and disaster assistance. This amounts to an average of over \$18 million per year:

• 2001-\$46 million on Klamath disaster relief and other government outlays

- 2002-2004-\$62 million-Special allocation through the Farm Bill and BOR to support water conservation infrastructure and water banking
- 2006 \$61.4 million in State of Oregon disaster relief and Commercial Fishery Disaster Assistance
- 2010-\$12 million on drought relief and conservation

The Klamath Basin has suffered through decades of conflict, chaos and crisis, with no stability for either the farmers or the downstream fisheries. The Federal government has historically had to pick up the tab, spending hundreds of millions of dollars on drought relief, disaster assistance, and lawsuits just to manage an ongoing crisis that leaves everyone unhappy.

Left unchecked, the Federal government could reasonably be expected to spend far more over time than is proposed by these agreements without fixing the underlying

problems, and have nothing to show for it.

The Klamath Negotiations

Following the disasters of 2001-2002, President George W. Bush convened a Cabinet-level Workgroup to focus on Klamath issues. In 2003, Interior Secretary Gale Norton highlighted the Klamath Basin as the poster child for water conflicts in the west and advocated for the development of a locally driven solution to be implemented by Federal and State agencies. Informal meetings and conferences were convened between tribal leaders, irrigators, conservationists, commercial fishermen, elected officials and concerned residents throughout the Basin, with the support of the Department of the Interior, BoR, National Oceanic and Atmospheric Administration, and the US. Fish and Wildlife Service.

In 2004, with the support of President Bush, Oregon Governor Ted Kulongoski and California Governor Arnold Schwarzenegger, Klamath stakeholders began a five-year process of negotiation that resulted in "the Klamath Agreements," a coopreceived process of negotiation that resulted in the Mainth Agreements, a cooperative approach to managing the Basin's resources and permanently fixing unresolved problems. Humboldt County, along with other local governments, State and Federal agencies, tribes, irrigators, fishermen, conservation groups, and a private utility, was among the nearly 30 parties that actively participated in the negotiation process leading to the development of the agreements. Through compromise, planning, transparency, and fairness, these resource-sharing agreements are designed to

end the persistent cycle of crisis, conflict, and financial waste.

These voluntary agreements offer balanced solutions for realizing better water certainty and water sharing, restoring imperiled fish and wildlife, and sustaining a strong natural resource-based economy in the region. The agreements are supported by the majority of basin interests who depend upon surface water, and who were able to put aside their own ideology and vision of the perfect outcome, to embrace a collaborative path that they believe is in the best interest of the entire

Benefits of the Klamath Agreements

As previously noted, the cost of continued inaction in the Klamath watershed has been very high, with the Federal government, alone, spending over \$181 million dollars since 2001 managing an ongoing crisis, with no endpoint in sight. If the Klamath agreements are not implemented, there is no reason to believe that this pattern of sporadic, uncoordinated emergency relief will not continue or even increase indefinitely into the future.

The Klamath Agreements propose to end this repeated cycle of throwing federal money at an ongoing crisis and to instead invest in long-term solutions that actually prevent future economic disasters. Implementation of the Klamath Agreements will:

- Re-program and more efficiently use \$17 million per year that is already and routinely being spent on federal programs in the Basin by linking these currently disconnected programs together as part of an overall restoration plan;
- For a fifteen year period, re-direct \$36 million per year of federal resources to establish long-term solutions, instead of continuing ad-hoc and emergency measures that have totaled over \$180 million since 2001; and,
- Leverage significant state and private (PacifiCorp & ratepayer) funding for habitat restoration and dam removal—capping ratepayer expenses as compared to the unknown costs of relicensing the dams.

The Klamath Agreements bring certainty and predictability to a region that has not previously known what to expect from one year to the next. These agreements protect, stabilize and grow essential jobs and businesses in the region's core natural resources industries of agriculture and fishing. The economic impact of these agreements in the basin is significant, creating both near-term and long-term jobs throughout the basin. Studies prepared as part of the economic impacts documentation demonstrate that the agreements will:

- Protect or create 4,600 additional temporary or permanent jobs in restoration, agriculture and recreation, and increase regional economic activity by at least \$445 million:
- Create over 1,600 short-term jobs and nearly \$200 million in economic output based on dam removal and associated mitigation activity;
- Provide a permanent average annual increase of more than 450 new jobs in commercial fishing between California and Oregon; and,
- Support significant increases in jobs, from 70 to 700 depending on the year, in Upper Basin agriculture.

Additionally, watershed restoration and improved water supply are expected to create millions of dollars and new local jobs from increased recreational fishing, hunting and bird-watching on National Wildlife Refuges and private lands.

Investment in the Klamath is a small price to help protect a \$750 million per year farming and fishing industry, sustain or grow over 4,500 jobs, restore the third largest and most valuable salmon run in the lower 48 states, and spark the revitalization of communities facing some of the highest unemployment and poverty in the region.

Conclusion

Humboldt County strongly supports the Klamath agreements because they provide an unprecedented opportunity to bring long-needed stability to the basin, resolve long-standing disputes, and provide assurances of water, for the first time ever, for both the fish and the farmers. Beyond removal of the four lower-most dams, these agreements create a comprehensive framework to achieve major water-shed restoration through improved flow regimes, habitat rehabilitation, improved water quality, and fisheries reintroduction.

These agreements are the very model of a well-crafted compromise; neither side gets everything they want, but the broad majority gets something they can live with. And the entire basin gets stability.

Humboldt County respectfully requests the Committee's assistance in enacting these agreements through enabling legislation. Our county is committed to supporting the Klamath settlement agreements, maintaining the strong, underlying partnerships we've built throughout the basin, and assisting with implementation of these agreements over the next 50 years. We look forward to working with the Energy and Natural Resources Committee on this issue, and we thank Chairman Wyden, Ranking Member Murkowski, and the entire Committee for the opportunity to provide these comments for the record.

(Table 1) DECLINES IN KMZ PORT SALMON LANDINGS BETWEEN 1976-2009

Pounds Of Salmon Landed By The Commercial Troll Ocean Fishery For Major Klamath Management Zone (KMZ) Port Areas

Year or Average of years	Eureku (CA)	Crescent City (CA)	Brookings (OR)		
Saturon Landings (mearest thousands of dressed pounds) ²					
Av. of 1976-1980	1,794	753	1,057		
1995	26	5	55		
1996	92	3	143		
1997	14	*	73		
1998	3.2	1	52		
1999	27	3	80		
2000	20	3	114		
2001	61	3	152		
2002	108	54	218		
2003	7	38	142		
2004	65	308	267		
3005	77	25	239		
2006	Ú	0	45		
4007	81	34	101		
2008	0	U	8		
20093	0	٥	5		
Ay. of 2005-2009	52	12	80		

 ⁼ Fewer than 500 pounds

SALMON FISHERY LOSSES BY PORT AREA (Average of Years 1976-1980 as compared to Average of 2005-2009 landings)

Port Area	Decline (%) of Fishery	
Euroka (CA)	-	98% LOSS
Croscent City (CA)	-	98% LOSS
Brookings (OR)		92% LOSS

¹ The port areas listed include landings in the following parts: Brookings also includes Port Orford and Gold Beach: Crescent City includes only Crescent City: Eurela also includes The idad and Humboldt Bay locations Brookings as at the far northern end of the filamenth Management Zone and thus would have received some landings from just porth of the KMZ.

¹ Data from Pacific Fishery Management Council (PPMC), Neview of 2005 Occur Sulmon Fisheries [2748], Tanles W-6.8.7. The KMZ coho fishery was closed completely in 1992, so years after 1992 reflect only channot buildings except for a very small Oregon coho Sahery contribution in Brookings in 2007 (~3.000 lbs).

² Preliminary 2009 numbers as of publication (2740) may be slightly adjusted based on final figures.

Statement by the County of Humboldt on Klamath Basin Issues

The CHAIRMAN. Mr. Lovelace, thank you. Dean Brockbank, Vice President, General Counsel, PacifiCorp.

STATEMENT OF DEAN S. BROCKBANK, PACIFICORP ENERGY, VICE PRESIDENT AND GENERAL COUNSEL, PORTLAND, OR

Mr. Brockbank. Yes, thank you. Good morning. Thank you for

holding these important hearings, Chairman Wyden.

My name is Dean Brockbank, Vice President and General Counsel for PacifiCorp Energy. We provide electricity to 1.8 million customers in portions of 6 Western States including 600 thousand customers in Oregon and Northern California. The company owns and

operates the Klamath Hydroelectric project which covers 64 miles on the Upper Klamath River along the Oregon/California border. Four of the project's dams would likely be removed under the Hy-

Four of the project's dams would likely be removed under the Hydroelectric Settlement Agreement. This settlement represents a serious collaborative attempt to resolve Klamath Basin resource issues. These agreements are not perfect to be sure, but the status quo is simply not an option.

We've also heard your admonition this morning, Senator, to continue thinking creatively to solve these issues. We commit to be a

part of this ongoing dialog.

PacifiCorp supports the KHSA primarily as a business decision. Settlement represents the best balance between the various interests of our electricity customers and other stakeholders. The public policy preference of both the Bush and Obama Administrations as well as 2 States and 4 separate Governors is that dam removal be

a key element in this Klamath settlement.

While PacifiCorp favors a settlement of these issues, we've been clear that we could only put dam removal on the table if it was a fair deal for our electricity customers. The Public Utility Commissions in both Oregon and California agree that the company's decision to sign the KHSA is in the best interest of our customers. The company is not for or against dam removal as a matter of policy. Our key objective in this process is to minimize the cost and the risks that our customers will face. Simply put the settlement is what makes dam removal possible.

I want to touch on 2 final issues.

First, the drought this year in the Klamath Basin is of great concern for all of us. In response to this crisis we have offered to operate our hydro project to make available up to 20 thousand acre feet of water this year to help alleviate drought conditions. We believe that we can do this while also maintaining river flows sufficient for and protective of fish.

Second, PacifiCorp is committed to continue carrying out the many interim commitments under the KHSA which are helping to improve environmental conditions and fish habitat during the period of the continue carrying out the many interim commitments under the KHSA which are helping to improve environmental conditions and fish habitat during the period of the continue carrying out the many interim commitments under the KHSA which are helping to

riod before the dams would be removed in 2020.

We look forward to working with you, Senator Wyden and this committee, to solve these problems.

Thank you.

[The prepared statement of Mr. Brockbank follows:]

STAEMENT OF DEAN S. BROCKBANK, PACIFICORP ENERGY, VICE PRESIDENT AND GENERAL COUNSEL, PORTLAND, OR

My name is Dean Brockbank, and I serve as PacifiCorp Energy's vice president and general counsel.

Thank you for the opportunity to appear before the Committee today and present the views of PacifiCorp on an issue of importance to our customers, the Klamath

Basin and the region.

I also applaud the committee for its interest in seeking solutions to the complex natural resource issues and conflicts that have unfortunately been a part of living and doing business in the Klamath Basin for more than a century. Like many before you toda -Basin tribes, farmers, agencies, and other stakeholders-PacifiCorp has been embroiled in the resource-related conflicts and litigation that have marked the Klamath Basin, an important part of the company's service territory.

PacifiCorp is a regulated utility that generates and provides electricity to 1.8 million customers in portions of six Western states, including nearly 600,000 in Oregon

and Northern California.

The company also owns and operates the Klamath Hydroelectric Project (Project) dams on the Klamath River that would be removed under the Klamath Hydro-electric Settlement Agreement, or KHSA, which the company signed in 2010 along with more than 40 parties that include federal agencies, the states of Oregon and California, Tribes, irrigators, commercial fishing interests and several environ-

mental groups

The Klamath Hydroelectric Project is a 169 megawatt hydroelectric facility on the Klamath River in southern Oregon and northern California. It consists of eight deregularing in southern oregon and normern California. It consists of eight developments including seven powerhouses, five mainstem dams on the Klamath River (Iron Gate, Copco No. 1, Copco No. 2, J.C. Boyle, and Keno), as well as two small diversion dams on Spring Creek and Fall Creek, tributaries to the Klamath River. The Project as currently licensed includes the East Side and West Side generating facilities, which use water diverted by the Link River Dam, a facility owned by the Bureau of Reclamation that regulates the elevation and releases of water from Bureau of Reclamation that regulates the elevation and releases of water from Upper Klamath Lake and which is not included in the Project. The Project also includes Keno Dam, which has no hydroelectric generation facilities, but which serves to regulate water levels in Keno Reservoir as required by the Project license and for the benefit of Klamath irrigators and in support of the Bureau of Reclamation's Klamath Project. The Company operates all eight developments under one FERC license (FERC Project No. 2082). The Project is partially located on federal lands administered by the Bureau of Land Management and the Bureau of Reclamation. The first hydroelectric development, Fall Creek, was completed in 1903 and Iron Gate, the last hydroelectric development, was completed in 1962. Keno Dam was com-

the last hydroelectric development, was completed in 1962. Keno Dam was completed in 1968. A map of the Project is included as an exhibit with my testimony. In 2000, PacifiCorp began the process of seeking a new long-term federal license for the company's Klamath Hydroelectric Project. The 50-year license for the project expired in 2006 and it was the proceedings around relicensing the dams that led state and federal agencies, Tribes, irrigators, commercial fishermen, environmental interests and other basin stakeholders to eventually negotiate and release for public comment the Klamath Basin Restoration Agreement, or KBRA in January 2008. The KBRA seeks to resolve the water allocation issues that have so divided the various communities and interests in the Klamath Basin. The KBRA also seeks to restore fish habitat, achieve much-needed water quality improvements in the Upper Klamath Basin, and support local communities and economies by providing more certainty regarding water allocation, addressing power cost issues for basin irrigators, and implementing other programs to assist basin communities in better managing and restoring the limited resources within the basin.

Although the company did not participate in the negotiation of the KBRA, the policy preference of the federal resource agencies and the states of Oregon and California was made clear during the relicensing process and with the release of the KBRA-which called for an agreement with PacifiCorp that would result in the removal of the Company's hydroelectric project. This state and federal policy viewshared by many basin stakeholders, though certainly not all-has been that removal of the Company's hydroelectric dams is a key component to their efforts to resolve the broader resource-based conflicts that are beyond the scope of the Company's reli-

censing process.

PacifiCorp is not in the business of removing dams. In fact, the company continues to value hydropower, including the Klamath Project, as a carbon-free and highly flexible power source that helps meet electricity demand in peak hours and assists with the integration of variable renewable energy resources. However, at the time of the release of the draft KBRA in 2008, the relicensing process had advanced to the point where the improvements to the facilities that would be necessary to secure another 40- to 50-year license to operate the dams under current laws and regulations were largely known.

Although the Company advanced and defended other means to restore fish passage to the upper basin through a trap and haul program, the agency terms and conditions for a new license required the installation of fish passage at each and every project facility. These facilities would require significant capital investment, and other conditions of a new license would mandate reduced river flows through

the powerhouses, impacting the economics of the project.

Thus, the company realized that doing nothing regarding the dams was not an option. But despite the costs and impacts from the requirements of a new license, making those improvements so that the project could continue to serve our cus-

tomers into the future remained the best available option.

The company is not for or against dam removal as a matter of policy. We have both removed and relicensed hydro projects in recent years. The company approaches these decisions on a case-by-case basis and in the case of Klamath-which to our knowledge would be the biggest dam removal project in the history of the world-the company simply concluded that it could not support a dam removal outcome absent a settlement agreement that would provide key protections to the Company and its customers from the unknown costs and risks of such an endeavor. And though PacifiCorp generally favors balanced settlement over costly and uncertain litigation to resolve complex issues such as the relicensing of the Klamath project, the company also made it very clear that we could only support dam removal if it was a fair deal for our customers.

And as a state-regulated utility, we are obligated to evaluate and pursue the available alternative that presents the least cost and risk to our customers. With that in mind, the Company negotiated with the state and federal governments, and ultimately other Klamath Basin stakeholders, to develop the KHSA. What ultimately made certain the company's support for a settlement that would result in dam removal is the inclusion of terms in the agreement that ensured removing the dams and replacing the carbon-free power they provide would cost less and present less risk for our customers than relicensing. Those terms include:

- A customer cost cap of \$200 million that protects customers from uncertain and potentially escalating costs related to dam removal;
 The transfer of the dams and related project lands to a third party for removal;
- The transfer of the dams and related project lands to a third party for removal;
 Liability protection for the Company and its customers should dam removal result in unintended consequences or create unforeseen problems; and
- The ability for our customers to continue to benefit from the low-cost power provided by the facilities until their planned removal in 2020.

The inclusion of these terms into the KHSA allowed the Company to conclude that the KHSA presented a better outcome for customers than continuing to relicense the project. The Company has presented its conclusion to the public utility commissions in both Oregon and California and they have agreed that the Company's decision to sign the KHSA is in the best interest of our electricity customers based upon these key terms. It is important here to note that neither PacifiCorp nor the public utility commissions have concluded that dam removal by itself is in the best interests of customers or a better alternative than relicensing. Rather, it is the KHSA - along with its protections for the Company and its customers - that represents the better alternative to relicensing.

Thus, the terms and protections of the KHSA allows the policy preference of the

Thus, the terms and protections of the KHSA allows the policy preference of the federal and state signatories, as well as the priority of the tribes, fishermen, and environmental stakeholders, to proceed and for dam removal to be a core component of their broader settlement-while also making certain that dam removal is the better outcome for customers as compared to relicensing.

However, without terms such as those in the KHSA, the company would not sup-

However, without terms such as those in the KHSA, the company would not support removal of its dams and could not justify doing so as being in the best interest of customers, which is the top priority in our decision-making as a rate-regulated utility.

That's a point I want to emphasize-that absent the terms of the KHSA or a similar settlement that ensures a fair deal for our customers, the company would not pursue removal of our Klamath dams.

It is the company's hope and intent to be part of a broader settlement that will hopefully address the priorities of other stakeholders and our neighbors in the Basin. We cannot make decisions, however, that expose customers and the company to unacceptable cost and risk.

PacifiCorp's role in efforts to find solutions to Klamath Basin resource issues is primarily connected to the future and ongoing operation of our hydro project-which is how Klamath issues can affect customers in all of our six states. But before concluding I want to touch on a few other issues I know are of concern to the committee and PacifiCorp as well.

The company is well aware of the angst among the irrigation community in the Klamath Basin surrounding the increase in irrigation power rates that have occurred with the expiration of the special contract rates that were tied to our expired hydro license. The company knows that the transition to higher rates under retail tariffs that have been approved by the Oregon and California public utility commissions presents a challenge for many irrigation customers.

The company is bound by statutes and regulations that do not permit special contracts, cost shifts between different classes of customers, and other restrictions regarding costs we are allowed to charge customers without the approval of our regulatory commissions - but we will continue to work with our customers in the Basin, federal agencies, members and staff of this committee and anyone else who can contribute to finding a way to alleviate the pressure of power costs on Klamath Basin irrigators.

To that end, PacifiCorp and affected stakeholders have held recent discussions with the Klamath Basin irrigators, the Bureau of Reclamation, Bonneville Power Administration, and the Oregon Public Utility Commission staff on how to move this program forward. We believe that we can lay out a path forward to achieve the objective of the settlements of delivering federal power to Klamath Basin irrigators and are proceeding to develop an agreement in principle that would outline how such a program would work and be treated by the respective agencies with discrete authority over its federal and state components-Bonneville Power, Reclamation, Western Area Power Administration, and the state public utility commissions. We look forward to working with all interested stakeholders in the development of this agreement in principle and are committed to making the necessary regulatory filings to advance this program such that the program is ready to be implemented when the federal legislation enacting the settlements - which is necessary for this program to be extended to all eligible Klamath Basin irrigators-has been enacted. PacifiCorp alone can't solve the power cost issue, but we are willing to play a helpful role consistent with the rules and regulations we must follow as a rate-regulated

PacifiCorp's Water Sharing Proposal

The drought this year in the Klamath Basin is obviously also a great cause for

concern for Basin farmers, ranchers, Tribes, fishermen and others.

While we obviously can't change the weather, the company has looked hard at creative ways to operate our hydroelectric project to assist with this developing crisis. To this end, the company has determined that a drawdown of water storage from our hydroelectric project could provide an additional 20,000 acre-feet of water supply in the Upper Klamath Basin by reducing withdrawals from Upper Klamath Lake necessary to achieve Reclamation's flow requirements below PacifiCorp's Iron Gate Dam-the furthest downstream facility on the Klamath River. While there is 85,000 acre-feet of available storage within our reservoirs, not all of that water volume can be immediately tapped without changes to the facilities or creating operational or water quality issues. However, we do believe that we can provide 20,000 acre feet of water on an immediate basi-while still ensuring that Reclamation's minimum flow requirements below Iron Gate Dam are delivered consistent with the flows directed by the National Marine Fisheries Service in the recently-issued joint biological opinion for Reclamation's Project. Using the Company's reservoir storage to increase water supply availability during this year's drought situation could reduce the need for water shutoffs that may otherwise be required to attain desired Upper Klamath Lake levels. Alternatively, this water could be used to increase water supplies for thousands of acres of irrigated agriculture and pastureland, or for other beneficial uses including fish and wildlife purposes. Although this action would certainly help to ease the situation, it would not fill the entire gap of water shortfalls.

PacifiCorp and the Bureau of Reclamation have a long history of coordinating our operations on the Klamath River for the benefit of water users and electricity customers, while also complying with regulatory requirements. Given the dire conditions that are developing in the Klamath Basin, PacifiCorp believes it is prudent to immediately explore creative ways to alleviate the situation and lessen the impact on Klamath Basin communities-many of which are comprised of PacifiCorp's customers.

PacifiCorp has communicated this proposal to the Bureau of Reclamation and looks forward to further discussions with Reclamation, state and federal agencies, Klamath Basin irrigators, and other stakeholders regarding how our hydroelectric project may provide a stop-gap water supply during this critical drought period.

KHSA Implementation

PacifiCorp also will continue carrying out our many responsibilities under the KHSA and other voluntary actions to improve environmental conditions within the Klamath Basin. These efforts have been ongoing since the agreement was signed and don't require authorization by Congress or further action by the Secretary of the Interior. I've included with my testimony PacifiCorp's annual report on its implementation efforts pursuant to the KHSA. The report highlights the many activities that PacifiCorp is undertaking in collaboration with our settlement partners and state and federal agencies to implement our obligations under the KHSA and advance the settlement process.

Among these actions are approximately \$80 million the company has committed to spend to implement the KHSA and implement a series of interim measures to improve environmental conditions during the interim period prior to anticipated dam removal in 2020. These actions are focused on improving water quality within the hydroelectric project as well as in the Upper Klamath Basin, working with the

California Department of Fish and Wildlife to update and improve the infrastructure and operations of the Company's Iron Gate Hatchery, and working with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on actions to enhance fish habitat within the Klamath Basin to benefit and speed the recovery of threatened and endangered fish species. Working with these agencies and our many other partners in the settlement process is resulting in meaningful improvements that would not be occurring but for the collaboration and relationships that have been formed and strengthened over the past several years.

I would like to thank the committee once again for its attention to these important issues and I would be happy to answer any questions you may have.

The CHAIRMAN. Thank you very much. As I indicated in my opening statement, we very much appreciate the commitment to the rate relief that was discussed today. Obviously we have more to do. Congressman Walden and Senator Merkley and I will be following up with you on those matters very quickly.

Our next witness will be Roger Nicholson, President of Resource Conservancy and Fort Klamath Critical Habitat Landowners.

Mr. Nicholson, I also want to thank you for that meeting that we had after the town hall meeting in Klamath Falls that I referenced with the Commissioner and appreciated your interest in working on these issues now and getting a solution.

STATEMENT OF ROGER NICHOLSON, PRESIDENT, RESOURCE CONSERVANCY AND FORT KLAMATH CRITICAL HABITAT LANDOWNERS, FT. KLAMATH, OR

Mr. NICHOLSON. I guess this is on.

Senator Wyden, I wanted to thank you personally for your interest. Yes, indeed, we are one of the groups that you referenced in your preliminary comments that have not been involved in the KBRA process. A group that wanted to be involved with the KBRA process.

We went to the KBRA and we were turned down from representation of the KBRA. My group represents literally tens of thousands of acres of irrigated ranch lands in the Upper Klamath Basin. A lot of those lands have been irrigated since the 1870s and

1880s continual with previously adjudicated water rights.

Right today some of our membership is being shut down that has 1872 water rights. Those are family ranches have irrigated continually since that time with the assurances from the State of Oregon that would be a continual process. They would always have that priority. Then we had another adjudication.

In the other adjudication, of course, the Klamath tribe was granted the rights that they should have always been. Time immemorial rights. Pontification of those rights is very questionable in our minds, very, very questionable. All being dictated by the former Adair decision which quite clearly said there will not be a wilderness servitude on those agricultural lands.

To rapid forward to where we are now, we want a settlement. We desire a settlement. We are in the process of meeting with the tribes. Hopefully we can forge ahead and become part of a settlement process even though we probably will not even be allowed to be signator on the Basin Restoration Agreement, the KBRA. Perhaps that we can have a parallel agreement that would work with all parties.

I have to say a couple things about restoration activities. Restoration activities were so big within such an important part of the KBRA our people have instigated those restoration projects for years. What we're seeing right now is actually a major step back-

There's been some 40 some miles of Sprague River restored. The Wood River we've tried to make it a model watershed all the way from bright bearing fencing to fish greening to other activities for years. With the simple lack of feed, lack of stock water, by losing our irrigation water, I'm fearful that we're going to take a major setback in restoration activities which I personally don't want. I've been out in front for a long, long time on those issues.

Anyway, in closing I'd like to say that I commend everybody that has worked on the KBRA. You have worked long and hard. We want to be part of that process. We want to be part of a settlement process today.

Thank you.

[The prepared statement of Mr. Nicholson follows:]

PREPARED STATEMENT OF ROGER NICHOLSON, PRESIDENT, RESOURCE CONSERVANCY AND FORT KLAMATH CRITICAL HABITAT LANDOWNERS, FT. KLAMATH, OR

I am Roger Nicholson. I irrigate in the Wood River valley on a family ranch, which has operated since the 1890's. I am representing irrigators above Upper Klamath Lake. Our umbrella organization, Resource Conservancy, represents the Fort Klamath Critical Habitat irrigators and the Sprague River Water Resource Foundation irrigators.

Resource Conservancy supports the concept of a basin wide settlement agreement. Furthermore, Resource Conservancy appreciates the efforts and time spent in devel-

oping the Klamath Basin Restoration Agreement or KBRA.

Unfortunately, the KBRA promotes the taking of large quantities of Upper Klamath Basin water, with no assurances any will be left for our irrigation usage. For this reason, we cannot support the KBRA as written, until such time as equity through water assurances can be provided to all stakeholders.

Resource Conservancy is concerned with the KBRA for the following reasons:

- 1. It calls for the diminishment of irrigated acreage in the Upper Klamath Basin.
- 2. It provides no water delivery assurances for the remaining irrigated acre-

age in the Upper Klamath Basin.

3. It provides for a new environmental water right in the Upper Klamath Lake, which was created from a portion of the Klamath Project waterusers Lake, which was created from a portion of the Klamath Project waterusers water right. This portion of the waterusers water right has not been used historically. The result is a call on the Upper Basin irrigators to provide water which has been used historically by the Upper Basin irrigators.

4. It also reduces the storage capacity dedicated to the Klamath Project waterusers, thereby making a live flow call on the Upper Basin irrigators more likely to fulfill the storage shortfall.

5. Settlement under the KBRA does not reflect the realities of the Klamath adjudication.

For years there was a balance in water use, providing irrigation water for the Klamath Project waterusers, Upper Basin irrigators and water in the streams for fish habitat and downstream flows. With today's environmental constraints and increased understanding of downstream flow needs, this balance has been upset and there is not enough water to go around. Resource Conservancy recognizes the need for balance in water distribution, and thereby is asking that an equitable portion of the water be provided to the Upper Basin irrigators in the process of achieving this balance under the current operating parameters.

Resource Conservancy supports the KBRA's ecosystem and riparian restoration efforts. We recognize the importance of having a healthy ecosystem and riparian areas not only for fish and wildlife habitat, but also for increased agricultural Healthy functioning ecosystems provide for sustainable agriculture, while also creates quality fish and wildlife habitat. As ranchers in the Upper Klamath Basin, we have implemented many river restoration projects, fenced miles of riparian area, provided off-site livestock watering, installed fish screens, and practiced best management practices for grazing and livestock management. These improvements, over more than the past three decades, have improved water quality, increased stream flows, and decreased sediment and nutrient loading. We look forward to continuing these conservation trends, but need to be economically whole to have the time and financial resources to continue making improvements to our operations and their ecosystems.

As KBRA suggests, all retiring irrigated acreage needs financial compensation while remaining acreages need water delivery assurances. Purchasing priority should be provided to junior water rights. In return, landowners can continue restoration efforts.

Resource Conservancy is very interested in working toward a comprehensive agreement. This comprehensive agreement can be structured such that it will parallel the KBRA and not contradict other parameters and benefits set forth in the KBRA. We appreciate the opportunity to continue settlement discussions, in an amicable arena which will lead to a solution for all parties relying on water and living in Klamath Basin. We would eagerly await the day when water wars and legal processes become a thing of the past and we can move forward to rebuild a productive community.

The CHAIRMAN. Thank you. That's the whole point of the discussion to have everybody at the table and see if we can finally get this resolved now. I appreciate your willingness to be part of those discussions.

Ms. Becky Hyde, Board Member of the Upper Klamath Water Users Association, Chiloquin.

STATEMENT OF BECKY HYDE, BOARD MEMBER, UPPER KLAMATH WATER USERS ASSOCIATION, CHILOQUIN, OR

Ms. Hyde. Alright, guess this is on.

Senator Wyden, I'm grateful for your leadership in holding this important hearing. My name is Becky Hyde, speaking today on behalf of the Upper Klamath Water Users Association. We seek power, water and regulatory security through settlement for family farms and ranches that irrigate in the tributaries above Klamath Lake, the same community Roger is talking about.

I ranch on the Sycan with my husband and 4 children. We also run cattle on the Upper Williamson which has stayed in our family for over 100 years. Unfortunately the Klamath Basin is known for its water crisis, not for the healthy food the hard working families grow, our amazing wildlife refuges or the tribes whose ancestors have lived in our Basin for thousands of years.

This year that water crisis is affecting around 96 thousand irrigated acres of family farm and ranch land in my home community. Just last Wednesday the water master delivered the news to my 9 year old son at home while my—his dad was out irrigating, that our water which enjoys some of the best priority dates in the Basin, 1864, would be shut off. The adjudication creates winners and losers and our family and others like us are on the losing end. That is why a Basin wide settlement and what we felt the KBRA, not adjudication, provides certainty for our operations.

The Klamath Basin's \$550 million a year Ag economy will be crippled this summer. Please imagine the spiral effects. The local timber industry, our other large economic driver is slow to recover from hard times. Tourism, while helpful, only generates \$20 million.

We have already shipped a load of cows and a load of yearlings off of our ranch. The remaining grass will dry out quickly forcing us to move more of our herd. 70 thousand animals could be without feed because of the enforcement of the adjudication, maybe more.

To emergency feed hay, just for 4 months, could cost \$27 million. Fighting an alternative forge will be difficult and we will experience millions of dollars in loss take crops and available livestock

forage. We can't afford this.

I'm disappointed because we saw this crisis coming. We worked for years on compromise and collaborative agreements to avoid this suffering. If the Klamath Basin Restoration Agreement were in place today with it would come a reasoned plan for coping with the crisis of drought and also a bedrock vision for long term stability. I care because a clear plan helps our children build communities based on following the golden rule rather than responding with violence and blame for decades on end.

I want my 9 year old son to remember this as the summer when we, as a community, worked through tough times together and not as the event that ended our ability to ranch near the Sycan. Our Klamath Basin is a national treasure. I hope everybody will repeat

that today.

Waiting for your attention. Please join me in choosing to end the water wars and rotating crisis that has come to define this special place.

[The prepared statement of Ms. Hyde follows:]

PREPARED STATEMENT OF BECKY HYDE, BOARD MEMBER, UPPER KLAMATH WATER USERS ASSOCIATION, CHILOQUIN, OR

Thank you, Chairman Wyden, Ranking Member Murkowski and Members of the

Senator Wyden I'm grateful for your leadership in organizing this important roundtable. My name is Becky Hyde speaking today on behalf of the Upper Klamath Water Users Association. We seek power, water and regulatory security through settlement for family farms and ranches that irrigate in the tributaries above Klamath

Lake. I ranch on the Sycan with my husband and four children, and we also run cattle on the Upper Williamson, which has stayed in our family for over 100 years.

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tainty for our operations.

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I'm disappointed because we saw this crisis coming. We worked for years on a compromise and collaborative agreement, to avoid this suffering. If the Klamath Basin Restoration Agreement were in place today, with it would come a reasoned plan for coping with the crisis of drought, and also a bedrock vision for long-term stability.

I care because a clear plan helps our children build communities based on following the "Golden Rule" rather than responding with violence and blame for decades on end. I want my nine year-old son to remember this as the summer when we, as a community, worked through tough times together, and not as the event that ended our ability to ranch near the Sycan.

Our Klamath Basin is a national treasure desperately waiting for your attention. Please join me in choosing to end the water wars and rotating crisis that has come to define this special place.

Sources of Information

Klamath County Agriculture 2012 Report—William W. Riggs, Director OSU Klamath Basin Research and Extension Center-this short report was prepared at the request of Klamath County Commissioner Tom Mallams in regards to the Farm Gate Value of Agriculture in Klamath County Oregon. Data sources include Oregon Agricultural Information Network, (OAIN), Modified IMPLAN for Klamath County 2007, and Methodology utilized in Riggs Testimony to Governor Kulongoski March 9, 2010.

Upper Klamath Water Users, Association—Danette Watson, consultant to the Upper Klamath Water Users, Association—has compiled GIS data from the Oregon Water Resources Department to estimate the number of surface water irrigators. UKWUA created a basic tally of minimum livestock numbers using local landowner knowledge. Emergency feed numbers were calculated by estimating the feed needed for 70,000 animals for four months at \$225. per ton, feeding each animal ° a ton

per month.

Klamath Basin Restoration Agreement, (KBRA)—available at edsheets.com Sections in the KBRA that provide alternatives to adjudication include; Section 16, Off-Project Water Program. 16.2.1 calls for an Off Project Water Settlement. Section 16.2.2 B Water Use Retirement Program. Section 17.3.2 outlines the Off-Project Power Users, making off-project eligible to receive the benefits of the (KBRA) Power for Water Management Program. Section 19.5 Off Project Reliance Program, outlines a program intended to mitigate unforeseen circumstances in the off project like drought. Activities may include funding water leasing to increase water availability for irrigation in the Upper Klamath Basin, or mitigating the economic impacts of lost agricultural production. Section 22.2.2 General Conservation Plan for Use in Application for Section 10 (a)(1) (B) Permit. Intended to provide the best regulatory protections for landowners to cope with the Endangered Species Act available under current law.

Golden Rule—Matthew 7.12, Whatever you wish that men would do to you, do so to them.

The CHAIRMAN. Thank you, Ms. Hyde. To you and Greg Addington, our next witness, the Executive Director of the Klamath Water Users, I also got a lot out of the session that we had before the town hall meeting. I appreciate both of you and the constructive way in which you're trying to address these questions.

So, Mr. Addington, welcome.

STATEMENT OF GREG ADDINGTON, EXECUTIVE DIRECTOR, KLAMATH WATER USERS, ASSOCIATION, KLAMATH FALLS, OR

Mr. ADDINGTON. Thank you, Mr. Chairman. Thank you for your

leadership in holding this hearing today.

My name is Greg Addington. I'm the Executive Director for the Klamath Water Users Association and with me today is Mr. Luther Horsley. Luther is a third generation Klamath farmer and a member of our Board of Directors. Our members supply water to approximately 1,200 family farms and ranches on 170 thousand acres served by the Klamath Reclamation Project.

The Klamath Basin is in crisis yet again. Our on-project members may not have enough water to last the season. Some of our

off-project neighbors have no water now.

We believe the Klamath Agreements offer the best, most durable approach to end what has become a constant cycle of crisis. They form a coordinated solution that meets the needs of small communities throughout the 16 thousand square mile watershed. They are

the only proposal derived from consensus and the only plan that doesn't seek to advantage one community over others.

We ask the committee to fully examine these agreements and to advance legislation that capitalizes on the efforts that so many diverse interests have put in to resolving one of the West's most intractable water conflicts.

Mr. Chairman, you know better than most the contentious nature of these issues. For many years we argued the science with other stakeholders. We tried to have our public relations efforts out do theirs.

We talked to commercial fishermen, tribes and conservation groups only from opposite sides of a courtroom. You and other members offered constructive ideas but told us that for any solution to work it had to come from the Basin. That meant working with each other instead of against each other. That's what we did.

Some interests came and went from the table. Others decided to draw lines in the sand and not negotiate. But most of us hung in there. The results are before you today.

These agreements benefit fish, wildlife refuges, commercial, sport and tribal fisheries and the farms and ranches that are the backbone of a nearly \$600 million agricultural sector. Our members gave up water in some years in order to gain increased certainty and predictability in our annual operations and to keep our rural communities intact.

I hear people say these agreements aren't perfect. I disagree. I think they're as perfect as 42 diverse parties, who historically have not liked each other, could make them. However, we understand that Congress must consider our proposed solution in light of many factors and limitations. There's still work to be done before Congress can enact legislation to implement a viable consensus based solution.

We are willing and eager to do that work with the committee, the States, the Federal agencies and those opponents of the agreement, who respect all interests and genuinely seek compromise.

Thánk you, Mr. Chairman.

[The prepared statement of Mr. Addington follows:]

STATEMENT OF GREG ADDINGTON, EXECUTIVE DIRECTOR, KLAMATH WATER USERS ASSOCIATION, KLAMATH FALLS, OR

Thank you for the opportunity to be here today, and thank you for your leadership in holding this hearing on an issue that is so important to so many people. My name is Greg Addington and I am the Executive Director for the Klamath Water Users Association (KWUA). With me today is Mr. Luther Horsley. Mr. Horsley is a third-generation Klamath Project farmer and a member of the KWUA Board of Directors. He served as President of KWUA during the difficult negotiations and ultimate signing of the two agreements that you will hear about today.

KWUA is a non-profit organization whose members are primarily irrigation districts and similar entities holding contracts with the federal Bureau of Reclamation for the diversion, delivery and use of water from the Klamath Reclamation Project (Klamath Project). Thus, my testimony focuses primarily on the circumstances and interests associated with the Klamath Project. KWUA members operate on more than 170,000 acres sustaining approximately 1,200 farms and ranches that depend on the Upper Klamath Lake/ Klamath River system for their water supply.

Introduction

KWUA is a party to the Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement Agreement (KHSA). Additionally, KWUA member districts have been actively engaged in the ongoing Klamath River Basin Adju-

dication process and work daily with federal agencies, tribes and other stakeholders in determining water supply availability, consistent with the Biological Opinions that ensure that the operation of the Klamath Project is in compliance with the fed-

eral Endangered Species Act (ESA).

The Klamath River watershed covers nearly 16,000 square miles and it often seems like there are about 16,000 interests with their own individual opinions about how to solve the difficult problems of the Klamath Basin. Every person at this table today agrees that the Klamath Basin is in trouble and I believe that everyone here wants to fix that. This year's desperate water situation is just the latest installment of a continuing, slow-motion disaster that is grinding away at our communities and ways of life. All of us are encouraged by Committee's willingness to examine the complex water resources problems of the Klamath Basin, where federal actions and responsibilities influence almost everything we do. Congress needs to be part of the solution.

And we need a solution urgently. As we meet here today for this hearing, farmers and ranchers on thousands of acres in the federal Klamath Project face the possibility having their water cut off mid-season, drying up crops before they can be harvested. Ranchers and farmers outside the Project may have no water at all to sustain their operations, causing tensions with irrigators within the Project and with tribal communities who themselves are struggling to protect fishery resources that have sustained them for generations. Federal wildlife refuges are enduring another too-dry year. Added to all of this are unprecedented increases in energy costs. In sum, 2013 looks like a very bleak year for the Klamath Basin. Another year of crisis. Another year of severe stress for our economy, communities, natural resources and people.

We believe that the KBRA and the KHSA (Klamath Settlement Agreements or 'Agreements') together offer the best, most durable approach to end this cycle of crisis and decline. They form a comprehensive solution that is intended to meet the needs of all the communities in the Basin. They constitute the only proposal derived from consensus and the only plan that doesn't seek to advantage one community or point of view at the expense of others. We ask the Committee to fully examine the Klamath Settlement Agreements and to advance legislation that capitalizes on the efforts that so many diverse interests have put into finding a meaningful resolu-

tion to one of the West's most intractable water conflicts.

Mr. Chairman, you know better than most the contentious nature of these issues. You have witnessed it firsthand. For many years we "argued the science" with the agencies and other stakeholders. We tried to have our public relations efforts outdo theirs. We talked to commercial fishermen, tribes and conservation groups only from opposite sides of a courtroom, and we often dueled from different sides of the political aisle through our elected Representatives at Congressional field hearings and in Washington. Nothing got better. You and other Members offered constructive ideas, but told us that for any solution to work it had to come from the Basin, and that meant doing things differently. It meant working with each other, instead of against each other. And that's what we did. Some interests came and went from the table, others decided to draw a line in the sand and not negotiate, but most of us hung in there and did the hard work of finding common ground and a common purpose. The result was the Klamath Settlement Agreements.

The remainder of my testimony will outline the recent and contentious history of water resources issues in the Klamath Basin and then discuss how Klamath Project water users and our former adversaries arrived at the Klamath Settlement Agreements; what water users gave and gained to make the Agreements work for us; and identify the elements that should be part of any viable solution advanced by Congress. I will also outline my view of what continuing the status quo will mean for irrigated agriculture in the Basin. But mostly I want to emphasize to you how these Agreements, despite what you will hear from interests on the extremes, offer a positive and productive path forward that will allow us to begin to repair our fractured

community

Admittedly, my emphasis is on the Klamath Project and we believe that the Klamath Settlement Agreements are, for Klamath Project interests, superior to other alternatives and their attendant uncertainty, risks, costs and conflict. Others will speak to the Agreements from their own perspectives. Clearly, the Agreements do not solve every problem or address every possible concern. No plan can fix everything or make everyone happy. The Parties to the Agreements have always been, and continue to be, absolutely willing to consider constructive ideas that would expand the benefits of the Agreements and broaden the consensus behind them. We offer the Committee our assistance in crafting viable legislation to implement a consensus-based solution for the Basin. And we respectfully request that you act soon. The future of our communities is at stake and multiple crises are already upon us.

Background and Status Quo

Klamath Project Development

Irrigation development in the area now constituting the Klamath Project began in the last part of the 19th century. Individuals initiated appropriations of water under state laws and began the development of irrigation systems as more settlers moved into the region. In 1902, Congress enacted the Reclamation Act to encourage and facilitate irrigation systems that would expand food production for a growing nation and provide water and electric power to promote settlement and development of the West. The Klamath Project was authorized in 1905, as one of the earliest projects under the Reclamation Act. Project lands lie in Klamath County, Oregon, and in Modoc and Siskiyou Counties, California. Individuals and later irrigation districts entered into contracts with the Bureau of Reclamation (Reclamation) for the delivery of water in exchange for repayment of project construction costs (Klamath Project costs have been repaid) and payment of costs associated with operation and maintenance of federal facilities. In the Klamath Project, the responsibility for operation and maintenance of federally-constructed diversion and delivery facilities has been permanently transferred to irrigation districts. Also, districts and individuals constructed and own substantial components of the works that divert and deliver Project water.

The agricultural production of Klamath Project lands is a pillar of the local economy and the reason for the existence of several towns and small communities. Farms and ranches served through the Project produce grains, hay, potatoes, onions, mint, horseradish, livestock, dairy, and numerous other crops. Overall agriculture in Klamath County and the Klamath Project (Oregon and California lands) represents a nearly \$600 million dollar impact to the local and regional economy.

Operational Changes

For decades, irrigation water supplies available to the federal Klamath Project proved sufficient to meet the needs of our area's burgeoning farming and ranching communities. But starting in the 1990's, regulatory and policy demands began to negatively affect water availability in the Klamath Project. In 1988, the shortnose sucker and the Lost River sucker, two species found in Upper Klamath Lake, were designated as endangered under the Endangered Species Act (ESA). Biological opinions (BiOps) issued by the U.S. Fish and Wildlife Service (USFWS) in the early 1990s concerning operation of the Klamath Project identified Reasonable and Prudent Alternatives (RPAs) to avoid jeopardy to suckers. The BiOps included minimum reservoir elevations aimed at protecting the listed sucker species. These operating elevations were ultimately adopted by Reclamation. At that time, the reservoir elevations pertaining to Upper Klamath Lake generally allowed the Project to operate for its intended nurposes in all but years.

ate for its intended purposes in all but very dry years.

By the mid 1990s, there were demands for Reclamation to reprioritize and reallocate water from irrigation to environmental uses. In particular, Reclamation was asked to take steps to increase both Klamath River flows (as measured at Iron Gate Dam in California) and Upper Klamath Lake reservoir elevations above and beyond previously adopted ESA lake levels. The result was that new flow requirements and lake elevations were set and meeting these criteria became the first priority of Klamath Project operations. Water for irrigation and the federal wildlife refuges associated with the Klamath Project was made available only if and when the flow and lake level requirements were met. For a number of years, there were annual debates about who would get what, an exercise that one of our settlement partners has aptly characterized as "March Madness." Klamath Project irrigators were never sure whether, when or how much water they would receive each year or from year to year.

The 2001 Water Crisis and Subsequent Years

On April 6, 2001, Reclamation announced another change in the historic operation of the Project. On that day, the USFWS and the National Marine Fisheries Service (NMFS) each issued new BiOps (for the two species of suckers and the 1997-listed Klamath River coho salmon, respectively) for Klamath Project operations. Achieving the Klamath River flows and the Upper Klamath Lake elevations specified in these BiOps would result in no 2001 water deliveries from the Klamath system to the 170,000 acres in the Klamath Project service area. Reclamation immediately adopted the BiOp standards for 2001 Project operations, triggering a disaster. The hardship, conflict and controversy associated with the 2001 water curtailment were heavily publicized and are well known. Our communities remember the pain as if it were yesterday.

Since the ESA listing of these aquatic species as endangered or threatened in the Klamath Basin, water shortages or curtailments to irrigation water users in the

Klamath Project have occurred in 1992, 1994, 2001 (complete shut off), 2009, 2010, 2012 and 2013. The national wildlife refuges that receive water through Klamath Project facilities have also experienced shortage in these years and others. The trend is not a good one.

In the meantime, as you know, there have been problems for Basin fisheries, including a large die-off of salmon near the mouth of the Klamath River in late summer of 2002. While there are different points of view on the cause or causes of the die-off, there is no disagreement that various fisheries have generally declined, and

population numbers of some species are very low.

A new ESA BiOp and related operations plan for the Klamath Project have just been released. Although the new BiOp provides a more common-sense, real-time approach to system management than earlier BiOps, the Project cannot, in a year like this, divert sufficient amounts of water to meet the needs of our irrigators. This is to some degree a function of transition from previous, disconnected BiOps to the new BiOp, but it is also indicative of the difficulties and uncertainties we face on an ongoing basis. Farmers have to make planting and business decisions in the spring, and as a result, 2013 crops are in the ground and investments have been

made in seed, fuel, fertilizer, labor and other inputs.

If the KBRA were fully implemented today, things would still be tough but we would not be facing the strong possibility of a disastrous cut-off of water supplies in mid-season. As it stands now, we're doing what we can to offset and reduce our water demand to stretch supplies through the whole season, hoping to avoid another catastrophe, but the fact is that there may not be enough water or adequate tools

to manage the shortage . . . again.
Further, irrigators in the watersheds tributaries to Upper Klamath Lake are also experiencing hardship this year, as a result of the bad water conditions and the effect on their water availability of senior water rights as determined in March by the Oregon Water Resources Department (the agency responsible for regulating water). There is tension within and among irrigation communities, a regrettable cir-

cumstance that no one enjoys.

In the past, KWUA has testified before Congress about deficiencies and inequities associated with the ESA and other matters, and we have supported legislative efforts to address these issues. Our support for the KBRA grows from these experiences. KWUA also was the principal advocate for review by the National Academy of Sciences, National Research Council (NRC), of the scientific basis for regulatory actions taken in the Klamath Basin under the ESA. The NRC called for a watershed-wide approach to management of the Klamath system, a concept widely supported in the local community. This approach is the foundation for the KBRA.

How We Got to Settlement

When Reclamation evaluated the proposed Klamath Project in the early 1900s, it had planned to install hydroelectric facilities to generate inexpensive power to benefit the Project and to distribute to nearby farms and communities. Other Reclamathe Project and to distribute to hearby farms and communess. Other Rectaination projects built throughout the West incorporated power generation as part of the development. However, instead of building its own hydro plants at the Klamath Project, Reclamation entered in to a hydroelectric supply contract with PacifiCorp's predecessor, the California Oregon Power Company (COPCO), in 1917. The company had built one dam on the river (COPCO I) and wanted to build more. In exchange for various benefits, the company agreed to provide at-cost power to Reclamation's Klamath Project. The original contract with COPCO was renegotiated in 1956, and extended to cover a 50-year period ending in 2006. In that contract, COPCO actually layound the rate that Peals and in the contract of the Peals and in the Copco actually the peals are the copco actually the peals and the copco actually the peals are the copco actually lowered the rate that Reclamation and irrigators had paid for power between 1917 and 1956. The 1956 contract with COPCO was, in our view, clearly a condition of the company's Federal Energy Regulatory Commission (FERC) license to operate in the Klamath River

By 2004-2005, PacifiCorp had begun the process for renewal of its FERC license. which was to expire in 2006. It also took steps to bring Klamath Project (and offproject) power rates up to what the company deemed to be "market levels," which are many times higher than the agricultural rates negotiated in 1956. In fact, by and large, the Klamath Basin is the agricultural market for the company in the region. At the same time, increasingly restricted federal water deliveries have forced Klamath farmers into more energy-intensive on-farm operations in order to mitigate the loss of water supply by increasing the efficiency of how they use, reuse and recy-

The KWUA was an intervener in the FERC license proceeding because of our interest in power rates and as the ultimate beneficiaries of the 1956 power contract. Other parties, most of who ended up as signatories to the Settlement Agreements, also were interveners in that process for other reasons. PacifiCorp facilitated confidential settlement discussions as it pertained to their license renewal. This led to

the discussions that eventually produced the KBRA and KHSA.

During the FERC process, relationships developed among competing interests and discussions began to focus more on the overall watershed and the communities within it. We realized that this could well be our only realistic opportunity to address issues that had divided us. Slowly but surely common ground was formed among many previously adversarial parties, particularly among the signatory tribal parties and Klamath Project irrigators. Fishermen, conservation groups, federal and state agencies were also critical in this process. What finally brought these competing interests together, and what has kept them together, is the recognition that the Basin's various rural communities share many similarities, not the least of which is

their ties to the Klamath River.

For KWUA, the priority was to find a practical approach to solving both the water supply and power cost issues. Other parties had objectives that challenged KWUA's perspective, including for example their desire that four Klamath River dams be removed. But at the end of the day, all parties took an "interest-based" approach, and found ways to meet the other parties' real needs as they defined them. This was a key to success for all concerned, and we appreciated the respect for our interests shown by the other parties and are committed to supporting others' interests as well.

Ultimately, trust was built amongst parties that had never trusted each other. KWUA knew that it wasn't enough to just work out a settlement with Upper Basin interests and tribes. We knew that it also was important to have the Lower Klamath River tribes that catch Klamath River fish and coastal fishermen be part of any agreement. The contributions of the members of the conservation community who chose to be part of a productive process, while at times quite challenging for our interests, also were significant to making things work.

Key Elements for the Klamath Project Irrigation Community

As I discussed above, a key for KWUA and others in these Agreements was to maintain an interest-based approach to negotiation. At the same time, KWUA made it clear to other parties that its important interests included water supply certainty, regulatory assurances related to introduction or re-introduction of aquatic species in the Upper Klamath Basin, maintenance of the agricultural base and economy in the Klamath Project, and low-cost power consistent with the development of the Klamath Project. The Klamath Settlement Agreements address these interests in the manner discussed below.

Water Supply Certainty and Planning

Other parties respected these interests, including recognizing that any deal would have to provide a significant degree of water supply predictability and certainty. The ability to know what our water supply will be, even if it is less than what might be needed, is critically important to effective and efficient water management. Farmers, ranchers and irrigation districts can be creative and manage water if they know what they have to work with. What is untenable is not knowing how much water is needed, how much we will get, when we can start using it, and if or when it will be shut off.

The three main sources of uncertainty of irrigation water supply are hydrologic variability, known and unknown senior rights, and regulatory requirements of laws such as the ESA. The KBRA-in interrelated ways-addresses the uncertainty associated with each of these variables in order to achieve reliability of irrigation supply. (More details on these elements can be found in the chart on the last page of this statement, and in Appendix A*, Klamath Agreement Benefits-Commitments and Risk of Doing Nothing Table.)

Klamath Project Diversions

The KBRA creates a structure under which the irrigators on the Klamath Project will know, on March 1, the quantity of water that will be available for irrigation in that year. The quantity, agreed to by all the parties, will vary from year to year, based on the forecast of inflow to the lake. In average to wet years, the Klamath Project can divert up to 445,000 acre feet from Klamath Lake and the Klamath River during the irrigation season for irrigation and wildlife refuge supplies. The quantity declines with less favorable hydrologic conditions, and during dry years, diversions are limited to 378,000-388,000 acre feet during the irrigation season. This approach is a significant change from paradigms advocated by others under which water management is driven by calendar-based minimum in-stream requirements

^{*}All Appendices have been retained in committee file.

for Upper Klamath Lake and the Klamath River, a paradigm that has not benefitted fisheries or refuges and that threatens irrigation shortage, and sometimes even threatening mid-season curtailments after crops have been planted.

The agreed-upon limitations on diversions permanently free up water that can be managed for fisheries purposes. But, and when coupled with refuge delivery commitments, the result will be that the availability of Klamath Project water will be insufficient to meet irrigation demand in a number of years, with the deficiency ranging up to about 100,000 acre-feet. The KBRA will address this shortage with the "On-Project Plan," a user-controlled program to enhance water supply management in order that irrigators in the Project can "live with" the diversion limitations.

On-Project Plan

The Klamath Water and Power Agency (KWAPA), a joint powers or intergovernmental agency composed of Project irrigation districts, is charged with developing and implementing the On-Project Plan, and thereafter will administer the Plan on an annual basis in response to the given year's hydrologic conditions. The KBRA provides that KWAPA is to consider, in the development of the Plan, conservation easements, forbearance agreements, conjunctive use programs, efficiency measures, groundwater substitution, and other measures. It also provides terms to limit the effects of groundwater use on springs considered important for fisheries. (See Appendix B, Summary: On Project Plan)

After the Plan has been developed and approved, KWAPA will implement it over a period of about ten years, subject to the adequacy of funding. The KBRA parties express that, "implementation may include, for example, completion of measures to enhance water management and efficiency, or entering a long-term or permanent agreement with a landowner which would afford KWAPA the right to direct the landowner to forebear from use of water from Upper Klamath Lake or the Klamath River in specified future circumstances." After the 10-year implementation phase, KWAPA will administer the Plan annually, employing the tools that have been de-

veloped in the implementation phase.

RA Tribal/Irrigator Water Rights Settlements

The KBRA is structured to settle water rights issues between the Klamath Project and three tribes in the Klamath Basin and the United States as trustee for tribes in the Basin. As described above, under the KBRA water users in the Project will limit the quantity of water diverted by the Project from Upper Klamath Lake and the Klamath River. In exchange for the reduced Project diversions, the Klamath Tribes, Yurok Tribe, and Karuk Tribe (collectively, Party Tribes), and the United States as the trustee for Klamath Basin tribes, agree not to assert tribal rights so as to interfere with the agreed-upon water supply for the Klamath Project. The KBRA's terms are implemented through documents filed with the State of Oregon as part of its Klamath Basin Adjudication, where claims of the Klamath Tribes and others parties are being litigated, and for which the Oregon Water Resources Department has just issued its "order of determination" reflecting its determination of the scope of these rights.

The KBRA would not result in granting any tribal water rights to any tribe or affect the ability of any opponent of tribal claims other than Project water users to contest any claims of the Party Tribes. The KBRA only deals with: whether and to what extent the Klamath Tribes can make a call against, or demand water from, the Klamath Project based on the Klamath Tribes' rights in Upper Klamath Lake and the Klamath River, whatever those rights may be; and whether the Yurok or Karuk Tribe, or the United States as trustee for Basin tribes, based on water rights or federal trust obligations, can demand that the Project use less water than what is agreed upon. In both cases, the answer is no. No one else is precluded from asserting any position about their own water rights or opposing any assertion by oth-

There are, in the meantime, various interim protections for the Project. Until the water users have implemented their On-Project Plan described in the KBRA (anticipated to be roughly 2022), the Party Tribes would not be able to assert a demand based on tribal water rights against any water use in the Klamath Project. There are also various provisions that ensure that, if the agreement is not implemented, Klamath Project irrigators and the Party Tribes can simply return to their positions as they exist today and assert their arguments against one another. (See Appendix C, Water Settlements between Basin Tribes and Klamath Project)

Regulatory Assurances Concerning Water Supply and New Species

Although the KBRA does not amend or waive the ESA or other regulatory statutes, it deals with the risks to irrigators posed by those laws. The Agreement explains that a purpose of the Project water diversion limitations agreed to by the

irrigators is to "ensure durable and effective compliance" with the ESA and other laws. The non-federal parties (who do not have obligations to enforce regulatory laws) have committed to support regulatory approvals based on the agreed-upon water quantities, including revised biological opinions. The regulatory approvals that the parties support under the ESA also include a long-term permit covering a period "substantially beyond the [50 year] term of the Agreement[.]" There are also interim assurances over the period between the present and the date on which

critical programs are completed.

The KBRA does not guarantee that the ESA or other laws will not result in further water supply limitations. However, certainty for irrigators is greatly enhanced by the KBRA, consistent with the parties' expressed objective that further limitations on Klamath Project diversions would be a "last and temporary resort." The parties to the KBRA also commit to take every reasonable and legally-permissible step to avoid or minimize any adverse impact, in the form of new regulation or other legal or funding obligation that might occur to users of water or land upstream of Iron Gate Dam, associated with introduction or reintroduction of aquatic species to currently unoccupied habitats or areas. (See Appendix A)

Power for Water Management

Power has always been critical for movement of water in the Klamath Project where limited supplies are reused and moved around to maximize efficiency. Power rates for irrigators have skyrocketed since 2006 when PacifiCorp concluded that it could not renew the 50-year contracts that had provided low-cost power to the Klamath Project and to other water users in the Upper Klamath Basin. Instead, this mutually beneficial arrangement was replaced with a new structure that

this mutually beneficial arrangement was replaced with a new structure that phased in much higher power rates over the last 4-7 years.

The current cost of power for Klamath Project (and off-project) irrigators is, by our calculation, the highest in the Northwest¹ and significantly higher than rates paid by irrigators at comparable Reclamation project elsewhere in the West. For Tulelake Irrigation District, a KWUA member agency, power costs for the 67 pumps that it operates increased by more than 2,700% between 2006 and 2011², despite a significant reduction in power consumption during the same period because of effi-ciency investments. Shasta View Irrigation District, another KWUA member agency, also reduced its power consumption, but nevertheless saw electric power rates climb from less than \$7.00 per acre in 2005, to nearly \$70 per acre in 20122.

These rates, in a project that pumps water multiple times and at different levels (on farm, district, and Project-wide drainage), seriously disadvantage Klamath Project irrigators in the marketplace.

The critical importance of reducing and stabilizing power costs is recognized by the parties in the KBRA, which states (section 17.1) that affordable power is needed to allow efficient use and management of water for irrigation, and delivery to national wildlife refuges, to facilitate return of water to the Klamath River, implement KBRA conservation programs, and maintain sustainable agricultural communities. Reducing and stabilizing power rates in the Upper Klamath Basin is critically important to the long-term viability of irrigated agriculture both on and off the Klamath Project and to other objectives.

In other Reclamation projects, low-cost "reserved" or "project use" power is made available for certain loads, including the pumping and conveyance of irrigation water and drainage. The goal of the KBRA is bring Klamath Project power rates to a level "at or below the average cost for similarly situated Reclamation irrigation and drainage projects in the surrounding area." The KBRA would achieve this goal with the "Power for Water Management Program" consisting of three elements.

First, for the short-term, funding would be provided to stabilize total power costs as other components of the program are brought on line. Second, power generated at other Bureau of Reclamation facilities would address part of the program's objectives. Power can, for example, be marketed by the Bonneville Power Authority (BPA) to serve eligible loads in the upper Klamath Basin in Oregon, and by the Western Area Power Authority (WAPA) to Klamath Project districts in California. Under the KBRA and KHSA, Reclamation commits to acquire a contract consistent with applicable law and standards of service to serve eligible loads, and PacifiCorp agrees to cooperate in delivery of power to the loads. Third, the KBRA provides for federal funding for energy efficiency, conservation and renewable generation opportunities and investment. The activities to be pursued could include installation of additional efficiency improvements in water pumping and piping, solar photovoltaic development and net metering programs, investment in renewable generation on a

 $^{^1\,\}mathrm{See}$ Appendix E, Agriculture-Irrigation Power Rate Comparison $^2\,\mathrm{See}$ Appendix D, LTID-SVID Power Rate Increase Charts

broader scale, and other practices. (For more details, see Appendix F, Power for

Water Management Program)

The KBRA also contemplates the potential development of joint projects with the Klamath Tribes and irrigators under the umbrella of the renewable energy element. As with other elements, the benefits and objectives of this piece are designed to serve both irrigation interests inside the Klamath Reclamation Project and the Off-Project area in the Upper Klamath Basin.

Other Issues

Refuges and Lease Lands in the Klamath Reclamation Project

The KBRA advances the partnership between the Tule Lake and Lower Klamath National Wildlife Refuges (Refuges) and the agricultural community. The Refuges would become a purpose of the Klamath Project and receive a reliable supply of water with first-time-ever delivery commitments provided for Lower Klamath National Wildlife Refuge. Local family farming operations will continue to farm on specified portions of the Refuges working with Refuge managers to meet the energy and habitat needs of waterfowl and wildlife. Both functionally and historically, these lands exemplify co-existence of agriculture and wildlife in the Klamath Reclamation Project. The lands are part of the traditional "reclamation" project authorized in 1905, and they are also within national wildlife refuges and within the boundaries of irrigation districts.

This productive farmland has been leased to growers for generations. Unlike other public land developed under the Reclamation Project, the lease lands were not homesteaded, and thus provide expansive open space as well as substantial benefit for wildlife. This unique arrangement is addressed in the KBRA. Under the agreement, the non-federal parties: (i) recognize the unique history and circumstances of the lease lands, (ii) recognize practices such as "walking wetlands" and others that enhance waterfowl management while maximizing "lease revenues" and optimizing agricultural use, (iii) seek to further the beneficial partnerships that have developed between growers and wildlife refuges. These Parties express their support for continued lease land farming managed as described in (ii). The KBRA provides support for legislation that would dedicate revenue received from the Refuge lease agreements to benefit the Refuge and the Refuge water delivery system. (See Appendix G-Lease Lands within the Klamath Project)

Dam Removal Not a Precedent for Other Areas

The KBRA and KHSA were designed specifically to address the unique set of circumstances that are specific to the Klamath system. As such, the agreement is not precedent-setting for other regions. Supporters and signatory parties to the agreement explicitly recognize and agree to this in section 8.1 of the KBRA, which states in part: "... the Parties acknowledge that the hydroelectric settlement is based on facts and circumstances unique to the Klamath Basin, and they do not intend to establish precedent for other basins or hydroelectric generation generally." In fact, in the Klamath Project alone, Reclamation contractors (irrigation districts) depend on, and operate, up to eight diversions or other dams for water supply delivery. KWUA views the KBRA as a means of protecting these important structures into the future.

Local Support

Despite assertions made by some persons, local support for the KBRA is strong, particularly among those whose livelihoods are at stake. Support for settling long-standing water rights disputes and avoiding catastrophes such as the 2001 water shut-off is unwavering. Water managers and irrigation district board members, who are hired and elected by their peers and represent over 97% of Klamath Reclamation Project acres that are dependent upon the Klamath River system, support the agreements. The list of parties to the agreements includes 17 irrigation and water user entities. This does not include additional local support such as city governments, Chambers of Commerce, other business and economic development organizations, individual family farms, processing facilities, farmer-owned cooperatives and other local merchants. Finally, support for the KBRA is also strong regionally and nationally as is evidenced by the diverse list of signatory and other supporting organizations.

Essential Elements

I often hear people say the KBRA isn't perfect. I disagree. I think this agreement is as perfect as 42 diverse parties who have had severely divergent perspectives could make it. However, we understand that Congress must consider our proposed solution in light of many factors and limitations, and there is still work to be done

to develop legislation to implement a viable consensus-based solution that is in the public interest. We and our partners in the Klamath Settlement Agreements are willing and eager to do that work with the Committee, the States, federal agencies

and those opponents of the Agreements who genuinely seek compromise.

For issues related to the Klamath Project, KWUA believes that any Klamath Basin legislation will need to address the following elements, all of which are within

the KBRA:

Increased certainty and predictability for Klamath Project water supplies

"Regulatory Assurances" so that reintroduced species do not impair agreed upon water diversions and that costs associated with reintroduction do not negatively impact irrigators

Support and adequate funding to implement programs to reduce demand on the Klamath system, without permanent downsizing of Klamath Project agriculture or negative impacts on small rural communities

Link River and Keno Dams will continue operation to support and facilitate

water deliveries to agriculture

Implementation of a program to develop renewable energy and acquire a modest block of federal power to serve Upper Klamath Basin irrigation loads at a net cost that is at or below rates in similarly situated Reclamation irrigation and drainage reclamation projects in the west

Acknowledgement of and support for the unique relationship between wildlife

and agriculture

Conclusion

This hearing is for the purpose of considering water resource issues in the Klamath Basin, which is to say the matters that have been the source of continuing conflict and hardship for several years. 2013 will be one of the most challenging years, if not the most challenging year in the history of the Klamath Basin. The combined effects of dry conditions and the past inflexible water management of the system have again this year led to severely and unnecessarily restricted water supplies to irrigators on the Klamath Project. Because of the recent rulings in the Klamath Basin water rights adjudication, farms outside the Klamath Project in Oregon will also feel the sting of water regulation as western water law is implemented in the Basin. As each year passes, lenders, commodity buyers, input dealers and other vendors become increasingly leery about doing business in the Klamath Basin as a result of the water uncertainty.

The 2013 drought and the potential for multiple crises is the very best argument for why change is needed - why a negotiated settlement with the preceding key elements is needed. Without a new rational plan, we can look forward to more of the same every few years-lurching from one crisis to the next. The KBRA would transform the management of the Klamath system for the better. It will result in foreseeable and reliable amounts of surface water in years like this for all irrigators dependent upon Upper Klamath Lake, its tributaries and the Klamath River-because the system will be managed differently. It will, without question, provide signifi-cantly more water to the national wildlife refuges in the Klamath Project. It will avoid unnecessary demand on our groundwater system, and it will provide jobs, sta-

bility and economic benefit to this entire region.

The amount of bad information in circulation about the Klamath Settlement Agreements is staggering. Here are the facts: The KBRA does not infringe on any individual's "right" to water or "take" anything from anyone. The KBRA ends costly litigation between the Klamath Tribes and the Project irrigators and will avoid future legal battles. We chose negotiation over litigation, others did not. The KBRA does not change or alter any individual's right to due process. It is built on marketdriven approaches and on unprecedented system-wide management that address other stressors to fish. No longer would there only be a narrow focus on how much water is diverted through the "A" canal of the Klamath Reclamation Project. The KBRA provides for improved management of the lake and river and provides protections under any necessary Biological Opinions based on this new watershed-wide approach to management. The KBRA does in fact provide meaningful protection from uncertainty associated with ESA regulations including through the development of Conservation Plans for all irrigators in the region, if they choose to participate. The KBRA also provides for economic mitigation to county governments and is the best possible outcome for the national wildlife refuges that we all value.

Water managers, full-time farmers and ranchers, local businesses and other professionals are committed to finding a better way to do business. It is these people

and organizations that are the strongest proponents for the KBRA.

We hope others can begin to see the positive economic benefits that the Agreements can provide to the region. KWUA will not stop pushing for real change be-

cause we understand what it means to keep things the same. Time is of the essence and Congress must have a sense of urgency as it considers next steps. The people most affected by these resource issues support the consensus approach of the Agreements. Other interests must quickly and constructively engage on legislation to implement a consensus solution, or get out of the way. We look to the leadership of this Committee to start the process that is needed to authorize these Agreements before there is nothing left to save.

Thank you for the opportunity to provide this testimony.

The CHAIRMAN. Thank you very much, Mr. Addington. Mr. McCarthy.

STATEMENT OF JIM MCCARTHY, COMMUNICATIONS DIRECTOR AND SOUTHERN OREGON PROGRAM MANAGER, WATERWATCH OF OREGON, PORTLAND, OR

Mr. McCarthy. Thank you, Senator.

Is this on?

Thank you, Senator. I'm Jim McCarthy, Communications Director for WaterWatch of Oregon. Thank you very much and everyone else who came here today to discuss water resource issues in the Klamath Basin.

WaterWatch is a State wide, nonprofit conservation group dedicated to the protection and restoration of natural flows in Oregon's rivers.

In the short term I would urge Congress to work quickly to ensure there's enough water this year to prevent serious harm to the region's critical national wildlife refuges and valuable salmon runs. Finding water now to sustain these resources will avert the ripple effects of greater harm that have resulted from Klamath water mismanagement in the past. Just last year the lack of water on the refuges sparked a disease outbreak that killed some 20 thousand water fowl. In 2002, as we all know, low flows in the Klamath River sparked a mass of adult kill that eventually forced fishing closures and created an economic disaster along the Pacific Coast.

So please do what you can to avert a repeat of those situations. When considering long term Klamath solutions 2 facts are certain.

First, the government has promised too much water to too many interests.

Two, the Nation cannot afford to allow the Klamath Basin to

keep lurching from one water crisis to the next.

We urge Congress to make a significant investment in the Basin to end this long standing problem and to protect the Basin's incredible natural resources. Any legislation must meet tribal trust responsibilities, support valuable commercial and recreational fisheries, secure water supplies for the region's national wildlife refuges and make a fair and equitable transition to sustainable levels of agriculture.

WaterWatch supported the 2002 Klamath Amendment in the Farm bill passed through the Senate with \$175 million in funding, thanks to your leadership, Chairman. Klamath communities would be far better off now if this measure had become law. In the future we hope to support similar legislation and recommend the incorporation of the following important solutions.

To recover up to 100 thousand acre feet of natural water storage capacity and reduce irrigation water demand by some 50 thousand

acre feet we recommend phasing out the Federal program leasing the sum of 22 thousand acres of publicly owned lake bed for commercial agriculture within Tule Lake in Lower Klamath National Wildlife Refuges. These significant improvements in the Basin's water balance would be achieved without transferring one acre of private land to public ownership. It would also shift farmland rental business from a government program to the private sector boosting the local economy. This step could also decrease the costs and private property impacts of another key solution for the Basin, a

Basin wide, voluntary water demand reduction program.

We also note that the water rights adjudication process in Oregon has created new opportunities for addressing the Basin's water issues, paving the way for durable, market oriented transactions to become a critical part of the solution through the work of water trusts and others. Other key solutions include implementing water conservation measures and improving water management Basin wide. That's very important, again, Basin wide. Amending the statuary purposes of the Klamath project to include providing the water necessary for fish, wildlife and tribal trust needs and a Basin wide 20 year program to restore fish, wildlife and water quality ideally under the use of the U.S. Fish and Wildlife Service.

The removal of PacifiCorp's 4 lower dams on the Lower Klamath River is also essential to Basin restoration. However, we do not believe that this requires Federal legislation and oppose holding dam removal hostage to try to leverage implementation of the excessively expensive and complex and controversial Klamath agreements. WaterWatch supports swift return the Federal Energy Regulatory Commission relicensing process for these dams.

I should note that WaterWatch does not support the KBRA and does not support linking the KBRA to the Klamath Hydropower

WaterWatch has provided some detail on solutions to some of the serious problems with these agreements in our written testimony. We'd be happy to provide further analysis, if requested, by this

committee or other interested Members of Congress.

Thank you again, Senator, for the opportunity to testify. Thank you for focusing attention on the important water challenges of the Klamath River Basin. We hope this hearing will serve as catalyst for restarting the kind of dialog between Klamath stakeholders and Congress that is sorely needed to find true common ground to build for viable, equitable and science based solutions.

WaterWatch stands ready to work with you toward this end. I will be happy to answer any questions and look forward to more

discussion.

[The prepared statement of Mr. McCarthy follows:]

STATEMENT OF JIM McCarthy, Communication Director and Southern Oregon PROGRAM MANAGER, WATERWATCH OF OREGON, ASHLAND, OR

Thank you for the opportunity to present testimony on behalf of WaterWatch of Oregon concerning Water Resource Issues in the Klamath River Basin. Founded in 1985, WaterWatch is a non-profit river conservation group dedicated to the protection and restoration of natural flows in Oregon's rivers. WaterWatch works to ensure that enough water is protected in Oregon's rivers to sustain fish, wildlife, recreation and other public uses of Oregon's rivers, lakes, and streams. We also work for

balanced water laws and policies. WaterWatch has members across Oregon who care deeply about our rivers, their inhabitants, and the effects of water laws and policies on these resources

The Klamath River Basin is one of the nation's great ecological treasures. Considered a western Everglades, this area in southern Oregon and northern California once contained some 350,000 acres of shallow lakes and wetlands. Only 75,000 acres of these wetlands exist today, and significant portions of these wetlands now lack enough water in many years to keep them viable. The upper basin is home to remarkably large native trout, and once contained thriving populations of spring chinook salmon, steelhead, and Kuptu and Tshuam (Lost River and Shortnose suckers). These fish once provided a major source of food for Native Americans. The Klamath Basin attracts nearly 80% of the birds migrating in the Pacific Flyway and supports the largest seasonal concentration of bald eagles in the lower 48 states. As Secretary of the Interior Stewart Udall stated in 1962, "There is probably no more important waterfowl area in the country than these refuges in the Upper Klamath Basin."

While water is vital to maintaining the ecological integrity of the Klamath Basin, fishery- dependent economies, and tribal trust resources, irrigated agriculture became the dominant use of water in the Klamath Basin over the last century. To date, more than 75% of the basin's wetlands have been drained and converted to agriculture. Damming and diversion of rivers and draining of wetlands have taken an enormous toll on the basin's ecology. The hydrology of the basin has been radically altered and water quality has been severely degraded. These conditions have contributed to the decline of federal Endangered Species Act-listed species, the failure of streams and lakes to meet water quality and temperature standards, the fail-

ure of streams and lakes to meet water quality and temperature standards, the failure to meet Native American hunting and fishing rights, the failure to protect valuable commercial and recreational fisheries, and insufficient water to maintain the wetlands on the basin's national wildlife refuges.

The Klamath once was, and still remains, the third most productive salmon river in the western United States. For decades, Klamath salmon declines impaired salmon harvest opportunities both in-river and along the Oregon and California coast. Thousands of fishing dependent jobs, tens of millions of pounds of seafood production, and years of world-class recreational enjoyment have been lost as a direct result of the water problems in the Klamath Basin. A devastating 2002 fish kill in the lower Klamath River-sparked by low flows-led to a further collapse in salmon populations and disastrous fishing closures along hundreds of miles of coastline. populations and disastrous fishing closures along hundreds of miles of coastline. This marked one of the lowest points in the Klamath's recent history. Since a court order was entered in 2006 enforcing science-based flow management in the Klamath River for threatened coho salmon, we have witnessed a dramatic positive biological response from the Klamath's non- endangered, commercially-valuable fall chinook salmon run. Now, fishing-dependent communities in Oregon and California are enjoying new economic vitality as a result of resurgent Klamath fall chinook. This example underscores the benefits of science-based management, and should encourage us to continue to follow the best available science in addressing the many facets of

the Klamath's ongoing water woes and species declines.

Two facts are absolutely certain in the Klamath debate: 1) The government has promised too much water to too many interests; and 2) The nation cannot afford to allow the Klamath Basin's fish, wildlife, and human communities to continue lurching from one water crisis to the next. In order to protect and restore the basin's incredible fish and wildlife resources, meet tribal trust responsibilities, obtain secure water supplies for the basin's wildlife refuges, and to make a transition to a sustainable level of agricultural and fisheries production in a fair and equitable manner, it is necessary for the federal government to make a significant financial

investment in the basin.

WaterWatch has supported federal legislation in the past, such as the 2002 Farm Bill's Klamath amendment, passed through the United States Senate with the leadership of Senator Wyden. This measure would have provided \$175 million in funding, and sought to achieve adequate stream flows to meet long-term recovery needs for Klamath fish and other wildlife through reduced water use and better water management. If this measure had passed into law the Klamath Basin's communities would be on much better footing to address this year's drought. We hope to support similar legislation in the near future, and WaterWatch believes that any new legislation should implement the following concepts:

1. Phase-out Commercial Farming on the Basin's National Wildlife Refuges. The federal government leases over 22,000 acres of publicly-owned lakebed within the Tule Lake and Lower Klamath National Wildlife Refuges for commercial agriculture. Phasing-out this lease land program and restoring these 22,000 acres of refuge to wildlife habitat would allow recovery of up to 100,000 additional acre-feet of much-needed water storage capacity, reduce irrigation water demand by some 50,000 acre-feet, improve habitat, food production, and water quality for fish and wildlife, reduce toxic pesticide use, and reduce refuge dependence upon polluted agricultural runoff as a water supply. This solution could also increase aquifer recharge and reduce pumping costs for well users in the Tule Lake sub-basin, an area plagued by dramatically dropping ground-water levels due to over-reliance on groundwater pumping to compensate for over-appropriated surface water supplies. Removing the government from the local farmland rental market would end unfair competition with private landowners, and shift lease revenues from federal government coffers to local farmland owners, boosting the local economy. As refuge habitat, these lands could provide comparable levels of county tax revenue as currently provided by the leaselands program. This significant step towards sustainability could be achieved administratively, at low cost in comparison with other options, and without transferring any private lands to the public domain. Indeed, we believe that dollar-for-dollar, acre-for-acre, there is no more beneficial option available for addressing the Klamath's water woes than ending the damaging commercial use of the basin's National Wildlife Refuges and restoring these areas of publicly- owned lakebed.

2. Fund and Implement a Voluntary Demand Reduction Program.—Water has been severely over allocated in the Klamath Basin. Any meaningful long-term solution will require some downsizing of the Klamath Irrigation Project and the retirement of other water rights throughout the basin. A voluntary program to give one-time financial assistance to agricultural landowners, by buying their lands or water rights at a fair price would be an equitable way to reduce agricultural demand, while giving more security to those who want to stay in business. A federally funded buyout program should be developed and implemented in this regard. The water rights adjudication process in Oregon, where the state completed the Final Orders of Determination in March, 2013, has created new opportunities for demand reduction solutions in the basin. For the first time, the details of who holds Klamath Basin water rights in Oregon - and in what quantities - has been formally recognized, allowing durable market-oriented transactions through the work of water trusts and others to become a critical

part of the solution.

3. Reform Management of the Klamath Project.—The statutory purposes of the Klamath Project should be amended to include providing the water necessary for recovering threatened and endangered species, recovering salmonid and sucker populations to harvestable levels, meeting the needs of other fish and wildlife, meeting tribal trust responsibilities, meeting the needs of the ba-

sin's national wildlife refuges, and meeting water quality standards.

4. Restore Fish and Wildlife Habitats and Meet Water Quality Standards.—Although fish and wildlife habitats have been degraded throughout the Klamath Basin, it remains one of the few major river systems in the United State where substantial restoration is still possible. Reclaiming and restoring wetlands, especially in the publicly-owned Lower Klamath and Tule Lake National Wildlife Refuge areas and around Upper Klamath Lake, are important to obtaining a more natural hydrological regime, improving and increasing fish and wildlife habitat, and improving water quality. Riparian areas need to be protected and restored. Dams and diversions need to be screened and provided with appropriate fish passage facilities, or removed. The water retention and flow regulation capability of upland forested ecosystems need to be restored through reforestation, canopy retention and work to reduce the impact of extensive unpaved road systems. A basin-wide, twenty-year restoration program under the direction of the Fish and Wildlife Service should be established, funded, and implemented.

5. Implement Water Conservation Measures and Improve Water Management.—There should be a thorough analysis of irrigation needs in the basin. Opportunities for saving water and improving conveyance systems and on-farm efficiencies should be carefully assessed, funded, and implemented within and

outside of the Klamath Irrigation Project.

Dam Removal

Removal of the PacifiCorp's four lower hydropower dams on the Klamath River is essential to basin restoration. WaterWatch supports the removal of these dams, and urges a swift return to the Federal Energy Regulatory Commission relicensing process for these facilities-now suspended by the Klamath Hydroelectric Settlement Agreement (KHSA). Because it is more economically sound to remove the dams than to try and relicense them, there is a high degree of likelihood this process will end

in dam removal, without requiring federal legislation. We do not support holding needed dam removal hostage to try to leverage passage through Congress of the hopelessly expensive, complex, and controversial Klamath Basin Restoration Agreement (KBRA).

Key Problems with the Klamath River Basin Restoration Agreement

While WaterWatch fully supports Klamath dam removal, WaterWatch does not support the KBRA and does not support linking the KBRA to the KHSA for the following reasons:

1. The KBRA attempts to guarantee water deliveries for the Klamath Project Irrigators first, without requiring any water guarantees or minimum stream flow levels for fish (including three fish species listed under the Endangered Species Act. This clearly undermines the Endangered Species Act. The KBRA water guarantees for the Klamath Project Irrigators in wet years would deliver more water to the irrigators than they historically used in wet years, and in dry years would deliver more water to the irrigators than allowed under current

Endangered Species Act protections for coho salmon;
2. The Klamath River flows which are predicted by KBRA proponents to result from the KBRA would be at levels below those needed for salmon, including the river flow levels currently required under the Biological Opinion for coho salmon and the flows recommended for salmon by the best available science;

3. The KBRA perpetuates and intensifies Klamath water conflicts by failing to downsize the Klamath Irrigation Project, continuing to over-promise water, and by placing undue political pressure upon Endangered Species Act enforcement and implementation;

The Klamath Project Irrigators would receive \$92.5 million under the KBRA to develop and implement their own private water plan without appropriate guidelines or public oversight. A significant concern is that much of this money could be used for unsustainable groundwater development rather than meaningful demand reduction;

5. The KBRA requires all non-federal KBRA parties to support commercial farming on 22,000 acres of Lower Klamath and Tule Lake National Wildlife Refuges for another 50 years, when this practice should be phased out as soon as possible, for the reasons described above. The KBRA creates undo pressure on refuge officials to continue to allow commercial farming under the Comprehensive Conservation Plan now under development;

6. The KBRA's attempted water allocation to Lower Klamath National Wildlife Refuge may never occur, is insufficient, and puts a heavy burden on the ref-

uge during droughts.

7. The KBRA would eliminate the best options to secure water for Lower Klamath National Wildlife Refuge. These options include: 1) Phasing out commercial farming on the refuges; 2) Using those lands to store winter water; and 3) Using the 1905 priority date water rights associated with the leaselands for refuge habitat purposes;
8. The KBRA limits the ability of the refuges to increase their water supplies

through development of other water sources by purchase, lease, or storage. These provisions conflict with common sense, and with the National Wildlife Systems Improvement Act's requirement that the Secretary of Interior secure

needed water supplies for all refuges.

9. Klamath Project Irrigators would receive \$41 million in power subsidies, plus lower cost Bonneville Power Administration power, plus special contracts that allow them to continue to drain important National Wildlife Refuge lands for commercial agriculture; and

10. The KBRA's price tag is nearly \$1 billion, yet it fails to address key problems in the basin and none of this money is for dam removal, which is to be funded separately by PacifiCorp's Oregon and California ratepayers and California state bond monies.

Key Problems With The Klamath Hydroelectric Settlement Agreement (KHSA)

Though the KHSA could theoretically lead to dam removal, it is not an agreement to remove any dams, but to study whether or not the dams should be removed. The KHSA is hobbled by the following problems:

- 1. Dam removal is unnecessarily linked to the damaging provisions and unrealistic budget of the KBRA and if KBRA legislation does not pass, dam removal would be derailed;
- 2. There is no concrete agreement to remove dams, only to go through a new process to determine whether dams should be removed or not. The Department

of the Interior initiated this new process, but has been prevented from completing it by the many preconditions of the KBRA and KHSA;

3. No dam removal would occur before 2020, while PacifiCorp would be allowed to continue operations that degrade water quality and harm salmon, including Endangered Species Act listed coho with minimal operational changes in the interim:

4. There are a large number preconditions that provide PacifiCorp with many opportunities to abandon dam removal; and

5. There is no definite date to return to the Federal Energy Regulatory Commission dam relicensing process-now suspended by the KHSA-even if the agreements do not become law.

Further Detail on KBRA/KHSA Problems

WaterWatch would be happy to provide a more detailed written critique on specific problem points of both these agreements, and previously introduced legislation, if requested by this committee or interested members of Congress.

In Closing

Thank you again for the opportunity to testify, and thank you for focusing attention on the important water challenges of the Klamath River Basin. We hope this hearing will serve as a catalyst for restarting the kind of dialogue between Klamath stakeholders and Congress that is sorely needed to find true common ground and build support for viable, equitable, and science-based solutions. WaterWatch stands ready to work with you towards this end. I would be happy to answer any of your questions and look forward to the roundtable discussion.

The CHAIRMAN. Mr. McCarthy, thank you. Very helpful. I will tell the group I don't believe I've had very many more exasperating experiences than we had a decade ago on that Farm bill where Senator Smith and I teamed up and we were able to get Senate support for \$175 million for the kind of collaborative effort that we're still talking about a decade ago. So it just kind of reaffirms how much effort has gone into this for so long. Why this time has got to be different.

So I'm not going to gnash my teeth this morning over that lost opportunity. The Farm bill, I guess, would be the 2002 Farm bill. But it sure reaffirms how important it is to thread the needle this time and get a solution.

Mr. Roos-Collins, Conservation Groups, Berkeley, California, welcome.

While we're getting set up, Mr. Johnson, you're with the Bonneville Power Administration. We've already commended you all for the good work that you've done in terms of the announcement today in terms of rate relief. I gather that you're here just in case there are questions in discussion. You'd rather not offer testimony. Is that right?

STATEMENT OF TIM JOHNSON, ASSISTANT GENERAL COUNSEL FOR POWER, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OR

Mr. JOHNSON. Yes, we didn't present testimony.

The CHAIRMAN. Right.

Mr. JOHNSON. Other than the statement that gave our position and support for what's going on here with the collaborative nature.

The CHAIRMAN. Very good. Then our last witness and then we'll go right to questions.

Mr. Collins.

STATEMENT OF RICHARD ROOS-COLLINS, WATER AND POWER LAW GROUP PC, BERKELEY, CA

Mr. Roos-Collins: Chairman Wyden, thank you for your leadership, this hearing and the opportunity to testify. I'm here for American rivers, California trout, Trout Unlimited, Pacific Coast Federation and Fishermen's Associations, Institute for Fisheries Resources, Salmon River Restoration Council and the Federation of

Fly Fishers, all signatories of the Klamath Agreements.

The Klamath Basin plainly has national value. One of the earliest Reclamation projects on other farms and ranches, 6 national wildlife refuges which are among the most productive on the Pacific Flyway, 6 national forests, a national wild and scenic river, 6 federally recognized tribes and one of the largest salmon fisheries in the Lower 48. These extraordinary natural resources are the basis for the foundation for these communities. There just isn't enough water, however, for all uses in most years.

Current laws regulate uses in a manner that permits competition and results in routine shortages rotating between farms, fisheries and tribes. Without a long term solution, as you stated in your

opening comments, the future will be the same or worse.

Diverse stakeholders gathered in 2004 to answer the question, can we agree to a better future? Conventional wisdom was that these negotiations would certainly fail. In hundreds of meetings we made hard compromises on hard issues. More than 40 of these participating stakeholders signed the Klamath Agreements and are represented here today.

These agreements are the first comprehensive management program of these water resources. Parties will implement contractual and other voluntary arrangements to allocate water to enhance

supply reliability for all beneficial uses.

Farming here already produces more than \$560 million a year in economic value and including some of the world's best potatoes, horseradish, mint and beef. That value will increase as a result of a more secure water supply. Refuges will have sufficient water supply under these agreements 88 percent of the time verses 12 percent today. Salmon and other native fishes will recover having declined of 10 percent or less of historic condition.

Mr. Chairman, to answer the question that I heard in your opening statement, are we flexible and prepared to work with the committee to develop the exact terms of legislation to in effect a long

term solution?

Of course, yes. Let's start today.

The CHAIRMAN. Very good.

Mr. ROOS-COLLINS. Are we willing to meet with opponents and others to consider potential amendments to these agreements. Yes.

We are ready to meet with others also willing to compromise and discuss specific proposals to enhance the net benefits for all affected communities. Like Mr. Whitman, I've been encouraged by the testimony today that reflects this spirit of cooperation.

We respectfully request that this committee advance legislation to implement a long term solution based on these agreements.

Thank you.

[The prepared statement of Mr. Roos-Collins follows:]

STATEMENT OF RICHARD ROOS-COLLINS, WATER AND POWER LAW GROUP PC

Chairman Wyden, Ranking Member Murkowski, and Members:

Thank you for this opportunity to testify. I am Richard Roos-Collins, appearing on behalf of American Rivers, California Trout, Trout Unlimited, Pacific Coast Federation of Fishermen's Associations, the Institute for Fisheries Resources, Salmon River Restoration Council, and the Northern California Council of the Federation of Fly Fishers. All are signatories of the Klamath Basin and Hydropower Agreements. We respectfully request that this Committee draft and favorably report legis-

lation to authorize full implementation of these agreements.

The water resources of the Klamath Basin have significant national value and federal interest. The Klamath Reclamation Project, authorized in 1905, is one of the oldest in the Reclamation program. Its farmers and the upstream ranchers today produce more than \$560 million annually in economic value, including some of the world's best potatoes, horseradish, mint, and beef. There are six National Wildlife Refuges there, the first dedicated by President Teddy Roosevelt in 1908. These are among the most productive waterfowl habitats in the Pacific Flyway,2 supporting 80% of the migratory waterfowl and the largest population of bald eagles in the lower 48.3 The Forest Service administers six National Forests which are more than half of the land in the basin, plus the Klamath National Wild and Scenic River. The salmon fisheries of this basin are the third largest in the Lower 484 and today support commercial fishing which produces \$32 million annually in economic value.⁵ There are six federally recognized tribes which occupy their time-immemorial lands

Unfortunately, in most years, there isn't enough water in the Klamath River Basin for all legal uses. Over the past century, federal and state laws have regulated individual uses in a manner that has not prevented significant shortages. These shortages have rotated between farming and fisheries. 2013 is a true crisis for Upper Basin ranchers. Litigation and political conflict are a constant for the water resources in the Klamath Basin.⁶ If we muddle through, the future of this basin will be more water shortages, more litigation, and associated hardships.

Diverse stakeholders gathered in 2004 to answer the question: "Can we agree to a better future?" We held hundreds of meetings across a six-year period, in the face of a widespread view that we would certainly fail. After hard compromises, more than forty of these participating stakeholders signed the Klamath Agreements. Some, who are here today to oppose the agreements, left the negotiation table.

Why did we sign? The Klamath Agreements are the first-ever comprehensive program for management of these water resources at a basin scale. Implementation will restore sustainable water supply for all beneficial uses. The agreements will provide

a better future for the many communities in this extraordinary basin.

To achieve that goal, the signatory parties committed to unprecedented cooperation to implement fundamental changes in current management arrangements over a 50-year term. The parties making these commitments, subject to Congressional authorization, include: the United States, both states, three of the four participating tribes, Reclamation contractors and many upstream ranchers, commercial fishermen, PacifiCorp, and other stakeholders.

The Klamath Reclamation Project will be modernized. The commitments and improvements will reduce river diversions, improve irrigation techniques, prevent groundwater overdraft, and prepare for drought and emergency. Tribes will resolve their trust claims against the Project and the United States upon performance of these and other measures. In turn, Upper Basin ranchers may voluntarily agree to increase flows for the benefit of native fishes in downstream Upper Klamath Lake. In consideration, tribes will not make calls against junior water rights. The future will be far more secure for these farms and ranches.

The National Wildlife Refuges in the basin will receive a lifeline. For the first time, these refuges will have a reliable water supply. The authorized purposes of the Klamath Reclamation Project will be expanded to permit this use. Refuges will receive an adequate supply 88% of the years under the Klamath Agreements, versus 12% today. These measures will enhance habitat in these six refuges. Wildlife viewing and hunting, now at 89,000 visits per year, will increase substantially-hunting by nearly 50%.

The salmon fisheries in this basin will be restored to good condition. These have 1declined more than 90% over this century,9 resulting in periodic limitations on commercial catch from Cape Falcon, Oregon to Monterey, California under the Pacific Fishery Management Council's weak-stock management rules.¹⁰ Under the Basin Agreement, these and other native fisheries will receive enough clean water for spawning and rearing, due to reduced diversions by the Klamath Reclamation Project and Upper Basin ranchers. That agreement also establishes the first comprehensive program to address all non-flow stressors from mountains to sea.

PacifiCorp's power-only dams, which have blocked fish passage to more than 420 miles of spawning habitat¹¹ since 1918, will be removed. The economic value of commercial and ocean sport fishing will increase by \$185 million over the term of the Klamath Agreements, 12 as these fisheries recover—salmon populations nearly dou-

What do the settling parties seek from this Committee and Congress?

We respectfully request that Congress enact statutory authorities to implement certain measures necessary for the comprehensive program. For example, National Wildlife Refuges will be authorized as a new purpose of the Klamath Reclamation Project. Another authority will permit the Interior Secretary, rather than the Federal Energy Regulatory Commission, to decide whether removal of PacifiCorp's four dams is in the public interest. According to the Public Utilities Commissions of California and Oregon (PUCs), dam removal under the conditions specified in the Hydropower Agreement will be less costly and risky for power customers than relicensing under the Federal Power Act. ¹⁴ The PUCs approved PacifiCorp's application for a 12% rate surcharge to generate \$200 million for dam removal, and no federal funds will be used.

Implementation of the Basin Agreement is proposed to involve just under \$40 million per year of new federal appropriation over the next 15 years. ¹⁵ Is that a fiscally prudent investment? The Basin Agreement will avoid substantial federal liabilities under tribal trust doctrine, resulting from near loss of the fisheries which were essential to tribal sustenance, culture, and religion. It will also reduce the need for emergency relief resulting from water shortages. In the past decade, such relief for farmers or fishermen averaged \$17 million and reached as high as \$60 million in a single year.16

Most importantly, the future of farming and fishing communities in this basin will be much more secure. Even in the face of water shortages, these communities produce economic value each year comparable to the entire 15-year budget proposal under the Basin Agreement. That value will increase substantially through this proposed investment.

This Committee is rightly known for your pragmatic and bipartisan approach to resources management. The Klamath Agreements are an unprecedented opportunity for this Committee and Congress to help local communities resolve these water shortages and restore the sustainability of fishing, farming, and tribal uses in the Klamath Basin.

ATTACHMENTS*

ENDNOTES

1 U.S. Department of the Interior, Bureau of Reclamation, Economics and

- Tribal Summary Technical Report (2012), p. 2-26. 2 U.S. Department of the Interior and U.S. Department of Commerce, Klamath Dam Removal: Overview Report for the Secretary of Interior (2012), pp. 58, 321 - 324; Dave Mauser, U.S. Fish and Wildlife Service, Effects of the Klamath Basin Restoration Agreement on Lower Klamath, Tule Lake, and Upper Klamath National Wildlife Refuges (2012), p. 9.
 - 3 Overview Report, p. 58.

4 Overview Report, p. 58. 5 Economics and Tribal Summary Technical Report, pp. 2–44 - 2–46.

6 Congressional Research Service, Klamath River Basin: Background and Issues (Report 7-5700) (2012), p. 1.
7 Overview Report, pp. 321-324.
8 Edward Maillett, U.S. Fish and Wildlife Service, Refuge Recreation Economics Technical Parameters for the Secretarial Determined Parameters.

nomics: Technical Report for the Secretarial Determination on whether to Remove Four Dams on the Klamath River in California and Oregon (2011), pp. 25-26 (comparing 50th percentile scenarios).

9 Overview Report, pp. 4, 58. 10 Cynthia Thomson, National Marine Fisheries Service, Commercial Fishing Economics: Technical Report for the Secretarial Determination on whether to Remove Four Dams on the Klamath River in California and Oregon (2012), pp.

11 Overview Report, p. 14.

^{*}All attachments have been retained in committee file.

12 Economics and Tribal Summary Technical Report, p. ES-4; Commercial Fishing Economics, p. 30.

13 Overview Report, p. 17. 14 Oregon Public Utilities Commission, Order No. 10-364 (2010), pp. 8-13; California Public Utilities Commission, Decision 11-05-002 (Approving a Rate Increase for Pacificorp Pursuant to Klamath Hydroelectric Settlement Agreement) (2011), pp. 11-13; Overview Report, p. 42.

15 CRS, Klamath River Basin, p. 26; Overview Report, p. 218. 16 CRS, Klamath River Basin, p. 10.

The CHAIRMAN. Thank you very much.

We now have a number of statements that have to be submitted for the record.

The Hoopa Valley Tribal Council.

The Pacific Coast Federation of Fisherman's Association. From Tule Lake, Earl Janoski of the Irrigation District.

Luke Robison of the Malin and Shasta View Irrigation Districts. Steve Kandra, the President of the Westside Improvement District.

Also Jared Huffman, who is a Congressman from the area.

So for the recorder, let's put those into the record at this point. The CHAIRMAN. So here's where we are. On my count we've got at least these issues to address: water, agriculture, the tribal concerns, fishing matters, energy, and wildlife refuges. Those are all part of the mix.

I want to begin the questions by saying lots of good work has clearly gone into the agreements that have been discussed this morning. I was struck, particularly by, Mr. Mallams? comments and Mr. Nicholson's comments, when they said we have not been for the agreements. Yet, Mr. Mallams called the work a noble cause, I believe those were your words. Mr. Nicholson commended the group as well.

So we're starting this discussion from that vantage point. In reality, in my view, that no matter how each of you feels about these agreements, if there was a political consensus we wouldn't be here this morning wrestling with this topic. We would have gotten a bill out of the Committee and possibly have it well launched by this morning.

So what I'm going to do now is ask some questions designed specifically to try to find a way to start bridging the gap and see what we can do to get a long-term, Basin-wide, solution. Now, you all heard me say at the outset that I thought there were 4 goals. A number of you have touched on them.

Certainty for the irrigators for water.

Federal Government's role with respect to dam removal.

PacifiCorp's role with respect to a business decision.

Making sure the tribes are part of the solution.

Addressing the fish runs.

So from the standpoint of having those 4 goals, I think I'd like to open this up to the group around the idea that let's have some suggestions, at this point, on how we can continue to bring the parties together and do it in a way that can shave some of the cost to taxpayers. Make it easier for us in a tough financial climate to build a consensus.

So I'm going to throw it open. I should have worn my glasses today so I may miss a name or 2. But let's start with that.

Suggestions for how to bring the parties together and particularly with a focus toward saving some money.

Who wants to start?

Mr. Nicholson.

Mr. NICHOLSON. Thank you, Senator Wyden.

In order to bring the Upper Klamath Basin in, fully in to settlement process there has to be a respect for its necessity and how it fits in the economy and in the community. Right today somewhat in disagreement with what Becky said. You're going to see the displacement of a hundred thousand head of cattle in the Upper Klamath Basin.

In order to avoid that we need water assurances like the project and other people have gained. Right today we have no water assurances.

Just a little bit of perspective. Klamath County is in the top 2 percent of all counties in the whole country for cattle production for yearling and cow calf production with the States of California and Washington very much dependent upon those with across State line transportation. In order to avoid an economic catastrophe the Upper Klamath Basin needs water assurances and just the same as everybody else has gotten in this process.

Thank you.

The CHAIRMAN. The only thing I'd say is if we restate positions that we've stated it's not going to be as fruitful as trying to offer

suggestions that help us to break new ground.

There's no question that you're right, Mr. Nicholson, about the need for those Ag interests to be able to secure the water. You had me at 'hello' on that point. What we've got to do is try to find a way to break some new ground today.

So if there are any of you that would like to offer up suggestions that move beyond what you've said in your initial statement, I

think that would be particularly helpful.

Who'd like to go next?

Mr. CONNOR. Mr. Chairman.

The CHAIRMAN. Yes?

Mr. CONNOR. With respect to the question you're focused on cost I want to provide a little context.

The CHAIRMAN. Good.

Mr. Connor. Then maybe think a little outside the box here.

So initially the way the agreements were structured the cost estimated between the various activities and actions that need to be taken to implement the agreements was about \$1 billion. We, at the Federal level, we are not signatories at the KBRA, to I think you know. So in the aftermath of the agreements being signed we took that figure and worked with the parties and basically tried to reevaluate how we could accomplish those items and maybe do it at a lower cost.

Still trying to focus on ensuring that the progress—

The CHAIRMAN. What's your best ball park now in terms of the cost?

Mr. CONNOR. Get to the bottom line?

The CHAIRMAN. Yes.

Mr. Connor. OK. \$800 million.

So we think that through that process of scrutinizing that budget, still trying to accomplish the same actions, we've shaved \$200 million off of that budget. Put it over a 15 year period as opposed to a 10-year period.

Also with respect to that——

The CHAIRMAN. For those of you that want perspective, this is one issue that we've spent a lot of time on.

In fact, we saw successful action in committee on it, with respect to the Secure Rural Schools bill, which helps communities where there's Federal land and it's been very challenging with respect to trying to make sure they had money for police and roads and basic services. That \$800 million figure that Mr. Connor just cited is twice the size of the entire Secure Rural Schools program for more than 40 States in the country.

Mr. Connor. Wow.

So it just puts it in perspective.

Mr. CONNOR. Another data point that I would just add is we looked at our existing programs that are currently authorized amongst the Federal agencies. We think that we are investing amongst the different agencies, certainly Reclamation has a large share of that, about—between \$15 and \$20 million per year that we think are applicable to those types of activities that are contemplated in the KBRA.

So that's something around \$250 million over that 15 year period

The CHAIRMAN. Does that take down the \$800 million down? The \$800 million less the 250?

Mr. CONNOR. I think you could represent—that's what I'm looking at it as is what is the new set of resources that we would need to accomplish those activities?

The Chairman. You'd need \$800 million, or \$800 million less 250?

Mr. CONNOR. Minus 250 is what—we need to scrutinize a little bit more. But that's the big picture analysis that we're doing. I want to make sure that those—

The CHAIRMAN. You're then talking about \$550 million in terms of new resources.

Mr. CONNOR. That's the ball park figure that we're thinking.

The CHAIRMAN. Very good.

Mr. Laird, just one point. I don't want to belabor just the cost question.

What do you envision the timeline in California to be for bond passage so that we can, again, try to flush out some of these cost questions?

Mr. LAIRD. The bond right now is \$11.1 billion. The Klamath amount is \$250 million of it. It is scheduled to appear on the November 2014 statewide ballot.

The drop dead point for changing the bond or deciding to postpone or doing anything is in the middle of August 2014. If this is, obviously, central to this hearing today but there's \$1.7 billion for wetlands restoration in the delta area. There's \$3 billion for storage, new dams in California. There's money to go across the State for other things. There is an ongoing debate that is whether or not to reduce the bond to make it more palatable to the voters and in reducing it do you just go to each line item and reduce it proportionately or do you fundamentally change the priorities of the bond. That is very

much an open question right now.

So what we are trying to do is listen to this hearing in the process and the cost estimates and try to reflect that in whatever our negotiating position is on. Quite frankly if it pulls really poorly there's always the option of moving it to 2016 at a time there's a Presidential election and much higher turnout. So all those things are in the mix which is why I thought it was important to say we are good for a commitment so that people don't get lost in the mechanizations of the bond and read into that, a feeling, of the commitment.

But it is looking at all those issues together and deciding the best path forward and a best path forward that gets us two-thirds in each house as well.

The CHAIRMAN. So let's stay with this. This is the topic, suggestions for bringing the parties together.

Ms. Hyde.

Ms. HYDE. Senator Wyden, I just want to point out that the Klamath Reclamation Project irrigators organized into Irrigation Districts. Greg sort of laughed at me when I was talking about the other day I said, that means we can get a hold of you and they can make decisions based on their elected boards coming to the table.

In the off-project we have a fierce and delightful independence which is also part of our downfall. We need the off-project water community, each family farming ranch to see a clear path to how they become a part of this settlement. It's kind of a public square issue. So it's a lot less about what we might be able to bring to the table to settle these issues and a lot more about process.

So a fair process——

The CHAIRMAN. What's the process that's going to help bring people together? As I indicated if we do another round of meetings where in effect we restate positions that we've already——

Ms. Hyde. Right.

The CHAIRMAN. Stated multiple times I'm going to feel really badly that we haven't used your time as well as we might.

So you've said it's a process issue. What kind of processes could be used that haven't been used before?

Ms. Hyde. I think we're almost on to one. So if I could have— The Chairman. Are you guys like the Senate? You want to yield to Mr. Whitman?

Ms. HYDE. Yes, I would like to yield to Mr. Whitman.

The CHAIRMAN. Why don't we yield to your good friend, Mr. Whitman?

Mr. Whitman. Thank you, Ms. Hyde. Thank you, Chair Wyden. In terms of process I think it's useful to try to slip this very complex issue up into some of its key constituent parts. So I'm going to focus really on the Upper Basin water use issue and not speak right now to dam removal which is really a separate issue as is the refuge issue to some degree.

But in the Upper Basin we have a framework in place for how to approach a compromise in the Upper Basin. Essentially what that involves is getting a critical mass of the off-project, fiercely independent community to sign up to agree to permanent riparian restoration in the Upper Basin to improve water quality and to allow the restoration of those fisheries in the Upper Basin. If we can get that critical mass of fiercely, independent land owners I believe that we can get to a resolution of the water right issues that provide the sorts of assurances that the off-project irrigators are looking for in terms of what will happen in dry years in terms of regulation of water rights.

The CHAIRMAN. Let's do this.

Mr. Mallams, what do you think of what Mr. Whitman said? Is

that going to help spring this loose?

Mr. MALLAMS. I think it's a good concept but it's going to be a very hard thing to do because we're looking here for a part of the process and everything is a long term, permanent solution. Restoration is fine. But in the past we've had years and years of restoration and not a lot of real, concrete, proven results.

I would rather see to help this process along is to have something permanently in place, off stream storage, be in the Bureau of Reclamation in their biological opinions that came out. They

talked we need more water. We need more water.

Restoration doesn't create more water. Off stream storage will create more water when we need the water. It's very doable. There's like a dozen spots in our Basin that's doable for off stream storage. That's something that's eliminated completely in the KBRA the way it's written. Any excess water will be environmental water.

The CHAIRMAN. So what do you think of Mr. Mallams point with respect to storage because I frankly have always been attracted to that idea. Members of Congress aren't real good at making more water, but storage issues and similar kinds of concepts clearly open up an opportunity.

What do you think of that concept, Mr. Whitman, to sort of take your new idea which picks up on what Ms. Hyde was saying with respect to a process and incorporating what Mr. Mallams is talking

about with respect to storage?

Mr. WHITMAN. Chair Wyden, it's very easy to go to storage as a magic solution for the water shortage over allocation that we have in the Upper Basin. I am perfectly happy to have water storage be

a part of the conversation. But these are not new ideas.

There has been examination of storage opportunities in the Upper Basin over, well, since 2001 in particular. The cost of significant new storage in the Upper Basin, at least based on the analyses done to date is very expensive. So if you're concerned about the cost of this package already I think once you start looking at the cost of additional hard storage for wintertime flows in the Upper Basin while it's an attractive option in theory. In terms of the practice and the cost, I think is going to be difficult.

the practice and the cost, I think is going to be difficult.

That said, there are, I think, some opportunities on the margin for increase in storage. Some of that work has already been done in the Upper Basin in terms of restoration, wetlands around the lake and above the lake that effectively provides additional storage. So we're willing to have it on the table, but caution in terms of the

cost.

The CHAIRMAN. Let's just operate under the assumption that Mr. Whitman is talking about a process idea that Mr. Mallams said in

concept; I think the words you used was, attractive.

You're interested in having storage incorporated. Mr. Whitman said, gee, I'm not sure we can figure out a way to do this economically. But the point is I think there's something to work with here on the process question.

So let's consider that.

I went to school on a basketball scholarship and dreamed about playing in the pros which was ridiculous because I was too small and I made up for it by being slow.

[Laughter.]

The CHAIRMAN. The point was to try to find a way to put some points on the board. Clearly Mr. Whitman is talking conceptually about a process that might have some potential.

Other ideas for bringing the parties together and hopefully ad-

dressing this question of the price tag?

Mr. Gentry, welcome.

Mr. GENTRY. It's a risk of sounding like I'm restating positions. The framework for what we're talking about here, the off-project water settlement, comprehensive, well focused restoration that's in the KBRA. It's within that framework.

There's opportunity for settlement within the framework of the KBRA. There's flexibility there. The KBRA does have provision for

amendment as we took advantage of at the end of 2012.

So there is opportunity for flexibility. The parties to consider settlement, to address the comprehensive, our need for comprehensive, well focused, efficient use of dollars for restoration and to address the real core problems that have brought about the situation that we're dealing with here.

It even helps to provide relief in this transition from unregulated water use, you know, that's been a result of decades of failed Fed-

eral and State policies. That's so—

The CHAIRMAN. Let me ask you this. Again, because I so admire the good work that you've done. What I want to keep focusing on

are suggestions and possibilities for the future.

I gather, Mr. Whitman, you're talking about trading improved water quality for a share of water for the off-project users. Now, the Tribe has been generally interested, to their credit, in this idea. They have the water.

Is there a way that we can break some new progress here out

of these concepts for either of you?

Mr. WHITMAN. Chair Wyden, I think there is a way. There is some precedent for this already in the context of the Klamath water right adjudication. We have agreements between the Klamath tribes and the Klamath project and also with at least several Upper Basin water users.

So that sort of agreement where a landowner/land manager agrees to participate in repairing and restoration, improving water quality in return for some certainty in terms of water rights I think

is the basic model that we need to work in the Upper Basin.

Again, a critical issue here is that we get enough of participation from the landowning community in the Upper Basin that we can, you know, that the tribes have some assurance that conditions actually will improve in terms of water quality, in terms of the fisheries in the Upper Basin because ultimately it's that resource that's really key, I think, in terms of the long term stability of the Upper Basin.

The CHAIRMAN. Do you want to comment on that concept specifi-

cally, Mr. Gentry?

Mr. Gentry. Conceptually—well making a call on water is the only tool that we have to protect our treaty resources at this point. You know, conceptually there's avenues to explore that, I mean, if our fisheries are restored and well on the way to recovery and we had harvestable levels there could be opportunity.

The CHAIRMAN. I'm just going to say conceptually there's some

possibility here.

[Laughter.]

The CHAIRMAN. Listen, let's do this. I want to let anybody else take a crack at the initial kind of question. Suggestions for bringing the parties, together because if we had a political consensus we wouldn't be here. So we've still got to keep coming back to that.

Mr. Collins.

Mr. Roos-Collins. Mr. Chairman, 2 recommendations for the go

forward process.

First, please give us some guidance on what's affordable. In 2010 we signed agreements, one of which involves Federal funding approaching a billion dollars. We heard from you and other members that was unaffordable.

So we took a 20 percent haircut in our proposal. We hear today that it's unaffordable.

I believe you.

I think that the Interior study which Mr. Besdeck led has already shown that the national benefits exceed the cost. But I accept that the costs are unaffordable.

We need some guidance on budget for the Basin agreement understanding that the hydropower agreement runs on ratepayers and to the extent necessary, California funding. So that's my first recommendation.

My second——

The CHAIRMAN. I mean, obviously if you cut it substantially that is going to increase our prospects. If you can cut it a quarter. I mean, if you can cut it a third that automatically helps to start a different kind of conversation.

I mean, the political consensus and the costs go hand in hand. When you have a political consensus you don't have people putting stuff on the ballot and saying they're against this and they're against that. What you do with a political consensus is you tell people in Congress there's really something to work with here.

I mean, we're passing a lot of measures, like last night's 14 public lands bills, passed by unanimous consent literally 100 United States Senators said we're going to support. Some of those bills

have gone on for years.

So what this is about is getting that consensus and you cut this substantially. You cut it a quarter. You cut it a third. You cut it in half and all of a sudden people in the Congress say, you know, they're really working very hard to try to bring us something that's viable. That's what this is about.

In terms of where I think you go? Those 4 principles which were largely worked out when we had the meeting in Klamath Falls town hall meeting and I ran it by both-sides the people who largely were for the agreements, and the people who were against them. Both said that they could live with it.

So that's my sense of it.

So absent any other suggestions for—

Mr. Roos-Collins. Mr. Chairman.

The CHAIRMAN. Yes.

Mr. ROOS-COLLINS. If I could add a second specific recommendation?

The CHAIRMAN. OK.

Mr. ROOS-COLLINS. Which is you need to convene this table. I mentioned hundreds of meetings across 6 years. The human investment in these agreements exceeds hundreds of thousands of hours. We can't repeat that.

A time, the crisis in the Klamath Basin doesn't permit that. We need to be on a clock that works for you.

The CHAIRMAN. That's why we're here.

Let's see if we can continue on the suggestion front for breaking some new ground.

Mr. FLETCHER. Actually Mr. Chairman, that's—I was going to. Let me amplify that point because that was my point as well.

There aren't going to be any new issues we haven't thoroughly thrashed and we haven't kicked around. What is new is your enthusiasm for getting past stalemate. It would be great to have some type of assistance in working to get past stalemate, working to get past positions, not to restate positions, but what are you going to do to solve something.

That expectation and to be firm on that, I think, would assist this process greatly.

The CHAIRMAN. I'll bring all the enthusiasm you need.

Mr. FLETCHER. There you go.

The CHAIRMAN. But we're going to have to do again is try to see if we can distill out and we heard a little bit of progress today on the cost. We heard a little bit of progress on this process question and whether there were, you know, ways to pick up on Mr. Whitman's, you know, point about trading improved water quality for a share of the water for off-project users.

Mr. Gentry, to his credit said, conceptually there's something to work with.

So we're going to keep trying to pull these kinds of concepts out. I think what I'd like to go to next is a question for the off-project people, again by way of trying to see about some prospects for compromise.

Now you all, Mr. Mallams and Mr. Nicholson, to your credit when I was there, told me that you agree with most of the agreement that's been reached to date. Those were your words with respect to the agreements reached to date. You agreed with most of it

Could you lay out for the group what that means? Because I think if we can get on the record what most of the agreement means to you all, because you've indicated that you support it.

That's means that we've got, hopefully, a handful of other issues we've got to resolve.

So why don't you take a crack at that, Mr. Mallams, because I thought that was constructive when you all said it in Klamath Falls. It would, again, give us something to work with this morn-

Mr. MALLAMS. Thank you.

I guess what I'd ask is maybe can I have a very large eraser to work on a little bit.

The Chairman. But before you use your eraser. State what you are supportive of and what your comment meant that you support most of it before you start erasing it because I'd like to hear what it means when you say you support most of it. Because I thought that was very constructive. It would be good to have that on the public record.

Look, this is not a star chamber proceeding here. Alright? We're

not grilling you like you're under oath.

But I think all of you understand that-coming here for a hearing like this-words mean something. The whole idea is to try to see if we can come up with some new ways to crack this open and get this resolved.

So if you would, Mr. Mallams, like you did in Klamath Falls, tell me what it means when you say you're for most of the agreement.

Mr. Mallams. I think the basis of the whole agreement is that the parties got together. That's where my biggest optimism is. They came to the table and they got together and they have relationships that have been built that I think will withstand some changes yet to be made.

Everybody says that this is not a perfect agreement.

The CHAIRMAN. But you don't want to go into the features of the agreements so we can have that on the record that you're supportive of?

Mr. Mallams. I'm supportive of the prospect of having the same type of program in the Upper Basin that the project has in their area, certainty of water to an extent. The difference would be the project certainty comes off the back of the Upper Basin irrigators. So that needs to be realigned.

But the prospect or the concept of that certainty of water did exist in the 2007 version of the KBRA. That was all taken out. We need to go back to that to where-

The Chairman. So what was in the 2007 version of the KBRA that you'd like put back?

I'm trying to get us to talk more specifically.

Mr. MALLAMS. I'd like to defer to Roger Nicholson. He was involved intimately and knows that part.

The CHAIRMAN. OK, Roger.

What was in the KBRA, the 2007 version that you and Mr. Mallams would like put back?

Mr. NICHOLSON. I think that what was in the KBRA for the parties that participated was water surety restoration and meeting the needs of the various stakeholders and with everybody compromising. I think those are very important points.

But I have to add that there are first, Senator, in our Klamath Falls meeting I said I probably could support 50 percent, not the

majority of what was in KBRA. What I can't support—

The CHAIRMAN. Tell us the 50 percent you're for because I was quite certain and wrote it down that you supported most of it. But for purposes of government work if we want to have a debate between 50 percent and most, fine.

Tell me the 50 percent of the KBRA-to the extent you would-the specific features that you support because it will help us, in effect,

take those off the table.

Mr. NICHOLSON. I would definitely support the 30 thousand acre foot as a contribution from the Upper Basin as called for in the KBRA document. But I want to point out that under a great deal of heat I carried that message forward to the Upper Basin, even though we were denied representation, I carried that forward. I got approval of our people to support that 30 thousand acre feet.

But I wanted to point out when we carried forward and got that approval the settlement concepts that were approved by the consensus group called for water assurances there would be no more further calls on the Upper Basin. We definitely supported that con-

cept.

The CHAIRMAN. OK. We will put that down and when you're for it, if you could, please tick off the 50 percent that you want to say you're for.

Mr. NICHOLSON. Say I'm for?

The CHAIRMAN. Yes.

Mr. NICHOLSON. Providing surety for water for all the various parties and all the various parties giving and taking and those provisions within the KBRA that do incorporate that. As far as Section 16 which is huge for us, specifically restoration is good, but it's vague. If it can be pinned down, we could be supportive of a lot of 16, of Section 16.

The CHAIRMAN. Alright. Anything else? That's a couple of provisions that you've indicated you feel comfortable with.

Keep going to the 50 percent.

Mr. NICHOLSON. If I would, could I speak of one that I'm not comfortable with?

The CHAIRMAN. First, again, I have had a chance on a number of occasions to hear what you're not comfortable with. What I'm trying to do is see if we can go back and forth to try to find some areas for common ground. So why don't we do this?

I'll make you a deal. You list what you're for and then you can list what you're against.

Mr. NICHOLSON. I'm for restoration.

The CHAIRMAN. I thought that was the last point.

Mr. NICHOLSON. I'm for the provisions of that as far as it goes for affordable power.

I'm for whatever relief the document did offer for, I think, habitat conservation programs or whatever that would provide some relief from Endangered Species Act.

Enforcement, I don't know how far they would go. I would go further.

I'm for all of those 3 basic principles. That's what we had hoped to gain from the document itself was water assurances, affordable power and protection for Endangered Species Act.

The CHAIRMAN. Let's—do you want to add anything about what

you were not for? Because I said if you-

Mr. Nicholson. Yes, I would. The CHAIRMAN. Go ahead.

Mr. Nicholson. Certainly the new environmental water right that was called for under the KBRA. It is our view that that project was afforded a water right in adjudication which was to reflect historical usages. Adjudications are far and above what they've ever used.

That environmental water right has turned around and become an instant nightmare for the Upper Basin people on the basis of calls there was 200 thousand acre feet given. The same people from the State of Oregon, the exact same people that turned around and were at that settlement table created an environmental water right. Then went to adjudication and back failed in our opinion, back failed to that, exactly the same people, back failed to that.

Presently it's being enforced at the request of one of the tribes. It's being enforced. It's being enforced with limited licenses which we think is a misuse of limited licenses within the State processes.

It's a nightmare that we warned about. I think it is here. Who suffers meeting those obligations? Upper Basin people suffer 100 percent of the time.

The CHAIRMAN. I was going to get into the, sort of, legal processes relating to adjudication going forward with Mr. Whitman, but in effect that was just touched on by Mr. Nicholson.

So why don't you see if you can respond to Mr. Nicholson and then describe the legal process relating to adjudication going forward.

Mr. Whitman. Chairman Wyden, let me speak to the legal proc-

ess going forward first.

The comprehensive water right adjudication in the State of Oregon has completed its first phase which is an administrative phase. That phase included multiple opportunities for all parties to put on their cases as to what their pre-1909 and federally reserved water rights are.

First of all before an independent hearing officer, completely independent from the Oregon Water Resources Department and then again, before the adjudicator in the Oregon Water Resources Department, who was separated from the Water Resources Director and the folks working on Klamath Basin restoration agreement.

So that's the administrative process that just completed in March of this year.

The CHAIRMAN. How about bonds? What are the requirements for posting bonds? People have been asking about that as well.

Mr. WHITMAN. Yes. Under Oregon law with the final order from the Department, the State is now required to enforce the rights that were determined in the adjudication.

There is a second judicial phase of the adjudication which is just

starting and which will likely take multiple years.

In the meantime there is an opportunity to put the final order in the administrative phase of the adjudication on hold through a stay and briefing on the stay has currently been filed in Klamath County State Circuit Court. Essentially what Oregon law requires—

The CHAIRMAN. That's, in effect, moving to the timeframe for the court proceedings.

Mr. WHITMAN. Yes, that's right.

Oregon law basically requires that in order to get a stay that the parties seeking the stay post a bond in the amount of damages to the water rights that would essentially be put on hold as a result of the stay. The parties are currently arguing both about the legal aspects of that and the dollar amount involved in that. The court will make a determination in the next couple of months on that.

The CHAIRMAN. Let me go to you, Chairman Gentry, with respect to some of these issues relating to adjudication. You have succeeded in the adjudication process. To your credit, when I was in Klamath Falls recently you indicated that you're going to honor the agreement with the on-project water users that guarantees them certain minimum water deliveries.

Given those senior water rights that you have, I think it would

be helpful to have you explain why you're willing to do that.

Mr. Gentry. This is something that was certainly deliberated amongst our members and our folks for quite a while. We agreed very strategically to, in a real specific set of circumstances and conditions, to apply our water rights in a manner that would help us achieve our long term goals for restoration.

The CHAIRMAN. OK.

So, as of today have you offered to enter into an agreement with the off-project water users like the one that you have with the onproject users?

Mr. Gentry. In previous discussions because of confidentiality agreements, I'm not sure I'm at liberty to really discuss the details, what we've discussed in previous discussions to talk about it.

The CHAIRMAN. But generally, I mean, I'm sort of a lawyer in name only.

Mr. Gentry. OK.

The CHAIRMAN. So, let's kind of operate with those limits.

Generally have you offered to enter into an agreement in the past with the off-project users?

Mr. Gentry. I'm going to have to confer with—because I'm recent to the council and I don't know some of the exact discussions.

The CHAIRMAN. But, OK, then let me ask a different way. I know that this can be asked.

Are you all still trying to get an agreement with the off-project users?

Mr. Gentry. Yes, yes, we're, yes, we definitely were.

The CHAIRMAN. Good, that's encouraging.

What assurances and if you'd like to bring—is that the lawyer in the back there? OK.

What assurances and benefits would the tribe need in order to get an agreement with the off-project users?

Mr. GENTRY. We would need continued support for the elements of the KBRA that we negotiated. Removing the dams is important to us. We'd need those assurances.

The CHAIRMAN. So, in effect, you're saying that the off-project people would just have to support the KBRA in its present form?

Mr. Gentry. Yes. I mean currently that's what our members voted for and that's what we, and I as a representative of the Klamath tribe, have authority to discuss. You know, as I pointed out the KBRA does have that flexibility. We will entertain-

The CHAIRMAN. I have the drift in terms of your position. I got

Let me do a couple of other things as we try to move through it.

Some questions for you, Commissioner Connor. When we had the hearing on drought in this committee, you told us that it was your high expectation that water will not be shut off to the Klamath project this summer. Just so we can have it on the record, is that still your view?

Mr. CONNOR. That is still my view.

The caveat when we had the earlier proceedings was whether we were going to get a new biological in covering project operations. We did secure that new biological opinion. It's a joint opinion from NOAA fisheries and the Fish and Wildlife Service, the first of its kind in its allowing project operations to continue at a reduced level, but they will continue and not be shut off.

The CHAIRMAN. OK.

What is DOI doing to help the off-project users? I hope you can see a little bit of the symmetry in all this. You know, we're trying to see if we can nail down to the greatest extent possible ways in

which we can try to help all the farmers in the Basin.

It's almost along the lines of, you know, Mr. Brockbank, of what we were talking about yesterday and discussed with Congressman Walden. You know, our delegation wants to help all the farmers in the Basin. So we've heard some encouraging news with respect to the on-project folks that their water will not be shut off. What are you all doing as of now to help the off-project users?

Mr. CONNOR. Quite frankly today our authorities are fairly limited on what we can do for off-project folks. I think some of the steps we're taking with rate relief for on-project water users could

be, with authority

The CHAIRMAN. I know your authority may be limited. But tell us how you might creatively use those limited authorities to help the off-project users, given how serious this situation is and Mr. Mallams and Mr. Nicholson have talked about.

Mr. CONNOR. I still think we're looking at, with respect to the shut offs and the lack of access to pasture land, there's limited opportunities. I still think we're evaluating things from the Fish and Wildlife Service's perspective that may be available as far as use of lands.

The CHAIRMAN. Tell us what may be available. Again we're kind of trying to tease out all the possibilities so that we can get them on the table.

Mr. Connor. It's pretty limited. I think we've looked at BLM lands where there's some cattle could be moved there or Forest Service. I don't know that we're finding the good opportunities there. I think we're still looking at the service lands.

The CHAIRMAN. OK.

Now with respect to the refuge, what's the situation there and what are the possibilities for dealing with the refuge and the concern there?

Mr. CONNOR. The refuge has no guaranteed water this year because of the hydrologic conditions. We will still look for opportunities there. The lease lands within the refuge have access to some project level supply so we'll get some water there.

We will continue to look operationally if there is some available water. That's what we've historically done over the last couple years. It will be limited. The refuge will suffer. It's in one of its driest conditions over the last 70 years.

The CHAIRMAN. OK.

Ms. Hyde, given the realities that you've heard this debate bring once again this morning, what do you think the next steps are for trying to bring people together? You indicated to me when I was in Klamath Falls. You said it again this morning that you want to be somebody who helps to bring people together. I think given your family's history, and I noted your comments trying to make peace for your 9-year-old to have that kind of role model . . .

Ms. Hyde. Yes.

The CHAIRMAN. What do you think you can do to help us break some new ground and move ahead?

Ms. HYDE. I think we have a historic opportunity right now to move ahead. I think I'm encouraged. There's meetings with Mr. Nicholson and myself and folks in the Klamath tribes even today with—that I think John Besdeck from Interior will be in.

I'm encouraged by that. But I do not want that to become some sort of an isolated——

The CHAIRMAN. What are the ideas you're discussing in these meetings that you're most encouraged about?

Ms. HYDE. I think what I'm most encouraged about is first of all, that there's attention. One of the other problems we've had in the off-project is we have fallen into the back waters behind biological opinions, the ongoing crisis elsewhere. So maybe we haven't gotten the same level of attention that other parts of the Basin have. Not out of ill intent, anyone's ill intent, but just out of the reality of limited resources to deal with stuff.

So I think what's happened is it's become extremely clear that we are, kind of, a target zone that needs to be dealt with. So I'm encouraged that we have a lot of principles that I think we can agree on. I know that, for example, Mr. Nicholson has provided some very good ideas to settlement approaches in the past that are some of the basis—

The CHAIRMAN. What are his settlement ideas that he's proposed in the past that would be attractive to you this morning?

Ms. Hyde. I think the number, the water use retirement that he mentioned is something that has pretty, you know, at that level of 30 thousand acre feet, has a pretty good consensus across different factions in the off-project. I think the fact that we're coming together and have the full attention of you, of the Governor, of Interior and also this very serious situation of, you know, potentially many animals going without feed this summer. I think it's very right for us to address.

I think that I'm encouraged by the riparian restoration component of this because it's not that onerous for us as land owners, as Roger has mentioned. They've done amazing work in the Wood River Valley on fencing and well, how do you say it? Help me.

Fish screens, thank you.

Chairman WYDEN. It's always a good sign when one side says to the other, how do you say it?

Ms. HYDE. How do you say it? I know.

The CHAIRMAN. Have you worked out how you want to describe it?

Ms. Hyde. Fish screens.

The CHAIRMAN. Fish screens, yes.

Ms. Hyde. Yes.

But anyway, I mean, I think some of these things that we have allowed to divide us don't need to because they're based on best management practices that those of us who are in ranching and are awake today, understand need to happen along our streams. They dove tail very well in with things like general conservation plans where we do the best that we can under the Endangered Species Act to protect ourselves under the law, to the best of our ability. Those things are built in also to this riparian restoration type thing.

So I'm just encouraged though, and I'm—but again back to how do we reach everyone? Because Roger doesn't reach everyone in the

off-project and neither does my group.

So my concern is is that there are very concerned families out there today and we're getting messages from them back from home, you know. Shutting down Whiskey Creek. We're, you know, we've got people saying I won't make it through the summer.

People are very scared. How do we bring them into the—how do we bring those families in and let their fiercely independent selves represent their private property rights, their water rights in a fair

process that gets us to a settlement?

It is absolutely doable. We have worked for years with the Klamath tribes. The fact that they have shown the good will that they have to the Klamath project, to settle, just is another reason why I believe that they fully intend to work fairly with us within the water balance and the KBRA. I hate to say it.

The CHAIRMAN. We're going to bring those folks at home who are hurting, just as you've described, into the discussion. I can have as

many town hall meetings as people think are helpful.

What we're going to have to do is find some additional kinds of steps. We've been able to get a few out already in the last couple of hours in order to really bring people into that discussion and stay in the discussion until we get this done. That's what I'm committed to doing.

I want to give some people on some issues that we haven't had

a chance to get into.

I want to ask you, Mr. Brockbank, on the dam removal question. My understanding is the company is making what amounts to a business decision here. That this is not some kind of ideological kind of judgment, but a business decision that is in the best interest of the company and the rate payers for the long-term.

Can you just walk everybody through how it is that you all reached that point?

Mr. Brockbank. Sure, Senator.

As you probably know the colleagues around the table certainly know, for several years we set out to relicense this project. But in the spirit of collaboration after many years with lots of input from 2 different Administrations and Governors of Oregon and California, it became apparent that the policy decision and the policy preference of these government parties that regulate our project, they wanted to see dam removal. To their credit they said, how can you, as in a regulated utility, get comfortable from a business perspective with dam removal?

So we laid out several criteria that were important to us, fundamentally, making sure that the decisions that were made would protect our rate paying customers from unforeseen costs and risks. We were able to do that through the Klamath Hydroelectric Settlement Agreement. We're quite comfortable. We believe it's preferable to the alternative.

The CHAIRMAN. Alright.

Mr. Addington, we really haven't brought you in to the question part of this. I think it would be helpful to have on the record why you all, with the water users, decided that negotiation and the settlement and the previous, you know, agreements we've been discussing today was the way to go on these issues.

Mr. ADDINGTON. Thank you, Mr. Chairman.

You know, as been noted and noted by yourself, 2001 our water supply was shut off completely due to the, excuse me, the Endangered Species Act. We were angry about that. There were many hard feelings and hard feelings with people in this room.

We went through many efforts to try to change that. We litigated. We came back to people like yourself and pounded on your desk and demanded that something be done to solve our problem. Then we watched as the tribes and the conservation groups and the other parties did the same thing independently.

We didn't see progress being made. We tried public relations. We tried a number of things to get our water, to get what our need

was, independently.

I think at some point you start looking around. We were, you know, we were back here testifying for reform of the Endangered Species Act. We thought that was the solution to our problem.

You know, that did not occur. Then we started thinking, big picture. You have an adjudication. So water supply is not just about Endangered Species Act, it's about water rights. It's about who has a priority date.

So to sum it up we sat down in a room and we looked around that room and there is every party in there that has anything to do with our ability to get water. We said, now's our chance to try to work something out. We have to be a lot more practical.

I give a lot of credit to my board of directors, who lived through some terrible times and who made the decision to be more practical about it.

The CHAIRMAN. So here's where we are, folks.

We're going to have a vote in just a couple of minutes, in fact a series of votes on immigration. I want to just reflect a little bit on where we are.

At a minimum, apart from the fact that I've again seen a lot of good will around here, I can find 4 positive developments in terms of where we've been in the last 2 and a half hours.

PacifiCorp helping to lower rate payer costs. That is helpful.

The California commitment on the funding question.

Mr. Whitman's discussion about the opportunity to trade water

quality for a share of the water.

Mr. Connor on telling us we can find, in effect, reduced costs and that he's looked at some ways to lower this \$250 million, essentially, from where things were originally projected. Based on the question I was asked earlier about what it would take to help move things along, nobody seemed to jump up in violent protest at the idea of maybe a quarter or a third of the cost being further reduced. We can do that.

Here's the point. A lot of you have said Ron, I'd really like you to crack heads. Just bring us all in and crack heads until everybody just sort of screams no mas.

That certainly is part of the legislative discussion. We are going to have these discussions. We're going to be accelerating them. They're beginning immediately.

Ms. Hyde noted that there were some additional ones that I

wasn't even aware of.

I'm going to bring in the Oregon delegation just as you all have asked for.

I said I'd talk with Congressman Walden specifically last night, Mr. Brockbank, with respect to this rate payer issue because the Congressman has a great interest in this. This is his District. He has correctly said, we don't have a solution until we address the needs of the entire Basin.

So we're going to continue in that kind of way.

But we've got to and I didn't mean to give everybody a bad time. I guess I probably started by inflicting some of that on Mr. Nicholson when he gave his first position with respect to needing water as off-project users because I understand that. I'm there. You've got me. It's not a debatable kind of proposition.

But we cannot accelerate what we need to do to get a solution if we just rehash all the stuff we've already said. It's why, when I believe it was Mr. McCarthy brought up the Farm bill in 2002, I could have basically done a filibuster of how incredibly exacerbating it was that we had a chance for \$175 million, not to be prescribed from Washington, DC, but to bring parties together and do everything that all of you are talking about.

Mr. Mallams, you mentioned the part about storage. Mr. Whitman and you were having a very constructive discussion about what could be done and what couldn't be done. I think it was fair to say we were all intoxicated more than 10 years ago about the possibilities for water storage. The idea was to use that money and get going.

But the point is that's been done. That's been done. Where I come to this now is, as I talked about with all of you in Klamath

Falls.

With Chairman Gentry.

Ms. Hyde, the night before the town hall meetings.

Mr. Mallams, Mr. Nicholson, after the meeting.

I think a lot of good work has been done already. I just want that

understood. A lot of good work has been done.

If we had achieved political consensus, however, no matter how you feel about that, we wouldn't be here this morning. So we've got more to do. I want to commend all of you for making the long trek here. I think we've made some tangible progress this morning.

We obviously have a lot more to do. But a couple of you were wondering about my enthusiasm for this cause. I hope you can see on the enthusiasm scorecard, my rating would probably be off the

chart. I mean, this has gone on long enough.

Just as you all have said, and as Mr. Nicholson and Mr. Mallams have said, there are a lot of families hurting right now. They are probably watching some of this being streamed live and saying who is going to stand up for me. Who is going to try to really bring people together and get this done?

I think all of us, with the good-will, particularly of Senator

Merkley, Congressman Walden.

Senator Murkowski had a lot to do here this morning, but she wanted to put in an hour because she understands that this is a proxy. This is a proxy for some of the huge water issues in our country.

So if you all will continue to stay at it despite whatever position you've taken in the past, this Committee is going to help bring people together and get a solution to this.

So I thank you for it. The meetings, the follow up meetings, as

you all know, are going to begin virtually immediately.

With that, the Committee on Energy and Natural Resources is adjourned.

[Whereupon, at 12:07 p.m., the hearing was adjourned.]

APPENDIXES

APPENDIX I

Responses to Additional Questions

RESPONSES OF GREGG ADDINGTON TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. For better or worse, resource management in the Klamath Basin is substantially a product of federal actions and policies over the last 150 years, and the federal government must play a significant role in implementing a path going forward. Our region—like other parts of the American West—contains vast tracts of government-owned land, generally open to all Americans, and land and water resources management has been defined by federal policies to a significant extent. Specific reasons why I believe there is and will remain a federal responsibility in the Basin include:

- The Federal Government, through the U.S. Forest Service and (to a lesser degree) Bureau of Land Management, owns and manages much of the land resource throughout the Klamath River watershed.
- The Federal Government entered into a treaty with the Klamath Tribes in 1864 making certain concessions and commitments that do not expire. The Federal Government established two other Indian reservations by executive order, and overall there are six federally recognized tribes in the Basin. There are fishing and/or water rights for fish recognized for some of these tribes in some locations. Under Federal law, parts of the Klamath Tribes' reservation were allotted to tribal members for agriculture and are now used by both tribal and non-tribal persons for that purpose.
- The Federal Government authorized the Klamath Reclamation Project in 1905, under the authority of the Reclamation Act of 1902. Federal policies actively encouraged settlement in the area and the development of irrigated agriculture. Water is managed by irrigation districts and other public and private entities that hold repayment contracts with the United States. The Upper Basin's communities rely on the agricultural development and economy supported by this activity.
- The Federal Power Agency (predecessor of the Federal Energy Regulatory Commission) granted a license to PacifiCorp's predecessor, the California/Oregon Power Company to operate a hydroelectric project in the Klamath River. The hydroelectric project consists of multiple dams and appurtenant facilities, over which FERC has jurisdiction.
 Congress and/or Presidents created six national wildlife refuges in the Upper
- Congress and/or Presidents created six national wildlife refuges in the Upper Basin that co-exist and are, for the most part, managed in conjunction with surrounding agricultural operations.
- The Klamath River Basin Compact was ratified by the states of Oregon and California in 1957 and the 85th Congress of the United States consented to the compact in Public Law 85-222, which was signed by the President on August 30, 1957. Generally, the Compact sought to address then-current issues concerning water rights and priorities between certain uses and concerning further exports of water from the Basin.
- In 1964 Congress enacted The Kuchel Act (Public Law 88 567) that disallowed homesteading of the "lease lands" (lands that had been conveyed to the United States by Oregon and California and that were originally intended for homesteads) within refuges in the Klamath Reclamation Project area in order to "stabilize ownership" of land within the Klamath Project and to "preserve intact the

necessary existing habitat for migratory waterfowl." The Kuchel Act provided that certain public lands within refuge boundaries would, consistent with proper waterfowl management, continue to be leased for agriculture. Additionally the Act generally provided that all of the lands within four refuges were to be "administered for the major purpose of waterfowl management but with full consideration to the optimum agricultural use that is consistent therewith." The Kuchel Act and its history represent a unique, successful, federal-nonfederal

partnership, but unfortunately one that is poorly understood. Congress has designated a stretch of the Klamath River under the Federal Wild

and Scenic Rivers Act.

Federal laws and regulations such as the ESA and Clean Water Act have broad implications for the use of land, water and hydroelectric resource in the Basin. The implementation of these laws alone constitutes a major federal presence in

The above federal actions are sources of conflict. Over time, acting under independent policy initiatives, the federal government has promised too many things to too many interests, undercutting implementation of some policies with the implementation of others. The resulting conflicts among resource users regularly generates a crisis of some kind in the Basin, and the federal government is called upon to help manage or mitigate the adverse effects of its policy decisions—often by providing funded disaster relief to one community or another. It would seem to be a prudent use of time and resources to try to fix problems for the long-term, thereby ultimately saving the taxpayer a significant amount of money over time. Achieving a comprehensive solution to the Basin's problems is impractical without federal authorization, participation and financial support.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. Best Case—The best case scenario for the Basin for the future would be rapid approval and implementation of a consensus-based, legally binding, durable and enforceable settlement agreement that establishes what each group of affected stakeholders can expect for the long-term, particularly related to water resources.

The KBRA is such an agreement.

From the standpoint of Klamath Project irrigators, the KBRA includes provisions for an On-Project Plan (OPP), which provides an opportunity for these family farmers and ranchers to move from a "reactive" mode, focused on addressing regulatory concerns, to a strategic mode that provides a defensible road map for accommodating variations in Klamath River water supply. This will support and promote viable agriculture (on and off Project) in the Basin, which in turn will boost the local economy and the environment. The OPP is intended to provide or facilitate the utilization of predictable and reliable water supplies, albeit with limitations (which should be manageable) on the total amount of Klamath River water available, particularly in the drier years.

It is essential that there be a clear path for allocating water equitably that is not constantly influenced by the changing regulatory dynamics or personnel and priorities of the day. This is not to say there won't be some conflict and ongoing dialogue about how best to do things. But it would mean significantly better predictability and security, for everyone, and would create processes whereby disagreement could be managed effectively and efficiently.

Worst Case—As far as I am concerned, the worst case scenario is that we continue doing what we are doing today, which amounts to death by a thousand cuts and a progressive downward spiral for the Basin's small rural communities.

Certainly irrigated agriculture cannot assume it will fare well without a significant change of course in the Basin, but most likely neither will any other interest including refuges and listed species. Today the Klamath Reclamation Project faces annual uncertainty and shortages of varying magnitude. With the onset of the Klamath Basin Adjudication's Final Order of Determination, the Upper Basin "Off-Project" agricultural community is also facing severe hardship for the first time.

The Klamath Project annual operations are historically and currently character-

ized by insecurity. As things stand, irrigators may not know what their water supply will be until April (or even much later, as has been the case in years since 2001), and uncertainty can persist through the season. This makes planning for the growing season very difficult. Further, if there is a water shortage, it is not allocated according to any particular plan or logic (other than contractual priorities that the Bureau of Reclamation has identified, which foster internal conflict). Additionally, for decades, local water users have spent significant time and financial resources monitoring and challenging annual Klamath Project operations plans influenced by agency biological opinions, as have others.

The status quo-rooted in regulatory uncertainty-remains, with potentially greater risk to Project water users. Irrigation districts and their water users will be left with (a) addressing ESA issues year to year, likely through conflict and litigation (initiated by themselves or others), as they have in the past; and (b) exposure to greater uncertainty with respect to future effect of tribal rights, a point driven home by recent developments in the Klamath Basin Adjudication.

Under the status quo, or worst case scenario, detractors of irrigated agriculture will continue to hound Congress about permanent downsizing (i.e. fewer family farmers) as the solution. Extremist groups from outside the Basin will continue to demand that National Wildlife Refuges receive a priority on water over agriculture, even though this is not consistent with state water law. Ultimately everyone will

Question 3. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and feasible under existing authorities?

Answer. In my view, other practical methods to make better use of water supplies have not been identified. Some have tried to make a case for other alternatives, but they are less than compelling arguments given the situation in the Basin. The assumption by some appears to be that if you just say there are alternatives, then that will simply suffice. Who supports these "alternatives"? Is the necessary political support from other key stakeholders, states, and the federal agencies in place to make these options a practical reality? I will address a couple of specific alternatives below:

Storage—New water storage could increase the water available for diversion during the irrigation season by creating additional supplies under a new (junior) water right. Klamath Water Users Association strongly supports new water storage, as do I personally. However, we have become realistic, and there is no basis to believe that our current problems can or will be addressed through new water storage. Although increasing the ability to store water appears to be a straightforward proposition, developing storage today is complicated by significantly high planning and stron, developing storage today is complicated by significantly high planning and construction costs; challenges with state and federal regulatory laws; lengthy, expensive, litigious and uncertain state and federal permitting processes; lack of sufficient local, state and federal funding; and a lack of water to store.

The competing interests for water in the Basin—irrigation (on- and-off Project),

the National Wildlife Refuges, instream use for tribal resources, specifically rights for the benefit of the Klamath Tribes identified in the Order of Determination in the Klamath Basin Adjudication, instream use for endangered Lost River and Short nose suckers and threatened coho salmon— have created a situation where there appears to be no extra water to store except in the wettest of years. Additionally, building storage without addressing other issues that affect water availability would solve nothing and cost billions.

Several reports have been prepared regarding potential storage projects within the Upper Klamath Basin. Two key reports were compiled by Reclamation:

• Bureau of Reclamation (Reclamation). 2011. Initial Alternatives Information Report, Upper Klamath Basin Offstream Storage Investigation. Available at: http://www.usbr.gov/mp/kbao/projects/ Upper Klamath Basin Offstream StorageInvestigation.pdf

__Basin StorageInvestigation.pdf

Basin Offstream Storage (UKBOS) Study

Storage Investigation.pdf

Bureau of Reclamation (Reclamation). 2010. Appraisal Report-Long Lake Valley
Offstream Storage, Klamath Project, Oregon and California, Upper Klamath
Basin Offstream Storage (UKBOS) Study

Many additional reports and information have been compiled and reviewed for storage projects and facilities within and near the Klamath Reclamation Project. Most of these reports and projects have been summarized in the two reports identi-

One of the most popular and common storage projects talked about in the Basin is Long Lake Valley (LLV). As previously described, appraisal level studies were completed by Reclamation for LLV Reservoir in 2010. These studies recommended a potential reservoir capable of storing 350,000 acre-feet of water. The LLV Reservoir ervoir was identified as a third-tier (low) priority item with additional barriers. Reclamation acknowledged that an alternative scenario may be a potentially viable storage option; however, this scenario would not provide additional supplies to meet agricultural demand. The preliminary benefit/cost ratios identified by Reclamation were "very poor", ranging from 0.01:1 to 0.04 to 1, and Reclamation did not recommend that the LLV alternative move forward to feasibility-level studies.

In addition, the water right permit filed by Reclamation for storage at LLV Reservoir was recently dismissed by the Oregon Water Resources Department due to the limited likelihood that this storage project would proceed. The appraisal report

did not discuss how the state process of adjudicating water in the Basin would likely

further limit the amount of water legally available to be stored.

In addition to LLV Reservoir, dozens of other potential storage projects have been investigated by Reclamation and others. One of those studies—completed over 50 years ago—suggested that the proposed Boundary Dam, on the Lost River, could provide additional water supply and power benefits to Klamath Project irrigators. This study was included as an attachment to testimony provided by Klamath Country Commissioner Tow Mellows for the recent Seneta Energy and Natural Resources. ty Commissioner Tom Mallams for the recent Senate Energy and Natural Resources Committee hearing. Unfortunately, this report was completed in 1962, a decade before significant federal environmental laws-including the ESA, CWA and NEPAwere enacted. Thus, the feasibility of building a new dam now-five decades laterin an era of intense regulatory oversight and expense, in a watershed that hosts ESA-protected Lost River suckers—was not conducted, which casts significant doubt

on the applicability of that report in the modern era.

Dredging Upper Klamath Lake—Many studies have been conducted for dredging Upper Klamath Lake (UKL). Environmental implications for the endangered Lost River sucker and shortnose sucker, water quality impacts, and significant costs are most commonly identified as complicating factors associated with implementation of this option. A Storage Investigation recently conducted by the Klamath Water and

Power Agency determined this storage option as "not currently viable".

Still, some argue this is a simple solution to the problem. For example, Klamath County Commissioner Tom Mallams included as an attachment to his testimony to the Senate Energy and Natural Resource Committee, a thesis from a Washington State University graduate student regarding dredging of Upper Klamath Lake. Mr. Mallams suggests this as a viable water supply enhancement alternative, along with cutting Juniper trees in the region.

While this student paper provides an interesting theoretical discussion about the potential economic benefits of a massive dredging project, several key engineering, regulatory and other technical questions remain unanswered. Some of these critical

issues include:

• Enormity and questionable yield of the proposal—The student paper assesses scenarios where 250,000-350,000 acre-feet of sediment would be dredged from the bottom of the lake. This is an enormous project-equal to between 400 and 565 MILLION cubic yards. A typical dump truck can carry about 8 cubic yards, which means that 50-70 MILLION dump truck loads would be required to develop new, lake bottom storage that would essentially be "dead storage" (i.e. below the existing outlet of Link River Dam, which controls the existing storage

Questionable disposal location of spoils—Where would these tens of millions of truck loads of dredged material be deposited? The study assumes that the 'sparsely populated" areas north and west of UKL would work for this purpose. These lands are owned by the Forest Service, for the most part, and the study assumes that those lands will be available—100,000 acres—to place several feet of lake-bottom sediments. Also, no discussion is made of the potential obstacles such a proposal—on federal lands—would face. Environmental organizations in the past 20 years successfully stopped a proposed ski resort in this same location, based in large part of perceived impacts to species protected by the ESA. Assuming that 100,000 acres of U.S. Forest Service land would be available at no cost and with little or no obstacles is wishful thinking.

High project cost—The paper estimates the cost for this scenario is in the range of \$1 billion (environmental mitigation and realistic spoil disposal costs not included), far more than the price tag associated with the KBRA and with no additional key components to water supply security such as addressing tribal rights, ESA and state water right adjudication outcomes, or other issues ad-

dressed by the KBRA.

Environmental compliance challenges and costs—While the paper discussed the impacts of the ESA on management of UKL, no discussion or detailed analysis addresses the incredible costs and challenges associated with complying with the National Environmental Policy Act (NEPA), satisfying Clean Water Act permitting requirements, and securing an ESA "take" permit for this project. The U.S. Fish and Wildlife Service, Klamath Tribes, State of Oregon, and environmental organizations would likely be very apprehensive about the potential impact that 50 dredges would inflict on lakebed habitat that supports two endangered fish species. The likelihood and costs associated with securing federal permits for this very ambitious project are not assessed in the student's paper.

Questionable storage benefits—A limiting factor to Klamath Project water supply has been the need to maintain surface lake elevations for two ESA listed species in Upper Klamath Lake. Similarly, in the Order of Determination in the Klamath Basin Adjudication adopted this year, tribal water rights are recognized based on surface elevations in Upper Klamath Lake; in other words there are water rights to the maintenance of lake levels, which could constrain irrigation water availability. The stated reasons for these minimum elevations include access to spawning and other habitat. Dredging would make the lake deeper but would not obviously remove the need to maintain surface elevations, and would not alter any rights the Klamath Tribes have to the maintenance of water surface elevations. In other words there could still be restrictions on lake elevations and the additional storage would be of no benefit. If a billion dollars is spent to dredge Upper Klamath Lake and create more storage, it would seem like it ought to solve a problem. It may simply create more water in storage that could not be used.

None of the previously motioned "alternatives" provides any analysis about how building more storage would affect the Klamath Basin Adjudication outcomes that are currently causing water to be curtailed to off-project irrigators. These alternatives do not address ESA issues, nor do they speak to the stipulated settlement that the Klamath Project has with the Klamath Tribes that provides assurance related to water supply. These so-called "alternatives" also do not address other critically important issues that affect water supply such as federal tribal trust obligations or extreme drought years.

Other often mentioned alternatives include repeal of the ESA and Clean Water Act. The family farms and ranches in the Klamath Basin don't have the luxury of pretending that such actions will occur and solve our problems. We must—and will—continue to work with our federal elected officials and urge that they find ways to modernize the ESA and CWA. However, in our view, sweeping changes to the ESA will not be made in Washington, D.C. any time soon. Saying one doesn't like the ESA or the CWA is a sentiment, not a strategy. Sentiment should not be the basis for formulating public policy and it cannot be the basis for the day-to-day economic decisions of farmers and ranchers. We have chosen to deal with the ESA on its own terms, not pretend that it is going away. The critical water challenges we face here in the Klamath River watershed remain, and we need to be looking at real solutions that help solve those problems—now.

Question 4. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. The agreements themselves do not automatically terminate at a given point in time. They exist as binding agreements on parties. We support the agreements and have seen benefit from being part of the process that it took to develop them. Realistically, although our coalition remains strong, it is strained due to the lack of progress in Washington. There are time-sensitive activities in the agreements, and we will not be able to find "work-arounds" indefinitely. At some time in the future, if Congress does not act, things will likely break down and parties will revert to defending their own interests at the expense of others. I can't define for certain when that would happen. A major concern is that it will become "too

late" without any advance notice.

Question 5. What is the likely outcome of the recent call on water made by the federal government and the tribes? For instance, how would it affect project irrigation allocations for the remainder of the water year? How might it affect off-project

irrigators and ranchers?

Answer. In brief, the water right calls made this year for enforcement of senior water rights have adversely affected surface water supplies in "off-project" areas. The Project calls are expected to have a positive affect for irrigation allocations on lands in the Klamath Project that are served with water from the Klamath River and/or Lake, although the magnitude of that benefit has not yet been determined.

The water right calls are based on senior rights recognized in the Oregon Water Resources Department's "Order of Determination" issued in March of 2013. The calls implement the "first in time is first in right' principle of western water law. It is most widely known and reported that the Bureau of Indian Affairs and the Klamath Tribes have made "calls" based on instream water rights that the Order recognizes for the benefit of the Klamath Tribes. In addition, many of the irrigation districts in the Project, particularly those that divert water from the Klamath system, also exercised their senior water rights under state law by making "calls" and the Bureau of Reclamation made essentially the same calls based on its interests in Project water. Many hundreds of thousands of dollars (at least) have been invested to protect and prove these rights against others who opposed them. We believe that water that enters the system as a result of water rights enforcement should be available for senior appropriators, in this case, Project irrigators. The challenge is in properly accounting for any additional inflow as a result of a call. It is our understanding that the U.S. Geological Survey will be using information from their gauging stations to analyze the inflow and determine what this quantity

We believe that increased water to the system must be added to the Project allocation, which this year is likely 30 percent less than what is needed. The Project call that has been made is for live flow and we expect that a specific call of this nature can be enforced when inflows are below Project demand. We believe that the Klamath Project water right is senior to approximately 82,000 acres in the Upper Basin, out of an estimated 150,000 total irrigated acres in the Upper Basin offproject area.

Certainly the exercising of water right calls for the first time ever in the Upper Basin is having a negative effect on water users with junior water right priority dates. It is clear that all parties involved should do all we can to avoid or minimize

this kind of impact.

The outcome of the Adjudication should not have surprised anyone after 38 years of processes and proceedings in the administrative phase, including Administrative Law Judges' proposed order that occurred over a period concluding nearly 18 months ago, and a final order from the state this March. Nevertheless, some parties were surprised by the outcome, notably the opponents of the KBRA-KHSA, including leadership from Upper Basin off-project groups. These individuals have vehemently rejected the settlement approach and instead demanded that state water right adjudication be the mechanism that dictates how to share water. Many of the family farmers and ranchers who are now experiencing adjudication-related water curtailments heeded the advice of these leaders.

KWUA supports a comprehensive settlement agreement that improves predictability and certainty for all irrigators, including those "off-project". We always have. This does not mean that everyone does not continue to have some risk associated with water supply. For example, the most junior right holders may always have some amount of risk no matter what kind of arrangements are reached, but that risk can be dramatically reduced so as to be much less than it is today. We believe the Klamath Settlement agreements provide the best, and frankly the only, mechanism to permanently improve a currently intolerable situation related to agricultural water supplies.

Question 6. Please summarize the proposed ESA listing and recent decision re-

garding the Upper Klamath Chinook salmon. What was the reasoning for this decision by NMFS? Do you agree or disagree?

Answer. In their petition to NMFS, the Center for Biological Diversity, Oregon Wild, the Environmental Protection Information Center, and The Larch Company alleged:

• That new genetic evidence indicates spring-run Chinook warrant distinction as separate Evolutionally Significant Units (ESUs) from that of fall-run Chinook populations. Petitioners reported that in the Central Valley, spring and fall-run Chinook populations. have already been designated as separate ESUs thus "setting precedent" for designation in the Klamath-Trinity basins;

 That the spring-run Chinook in the Upper Klamath and Trinity Rivers ESU meet criteria (discreteness and significance) to be considered a Distinct Popu-

lation Segment (DPS);

That spring-run Chinook populations are important to the overall viability of the Upper Klamath and Trinity Rivers Chinook salmon ESUs to such an extent that poor conditions of the spring-runs warrants listing the entire fall/springrun populations under the ESA.

After a significant review period, NMFS concluded that a listing was not warranted. As for NMFS's reasoning, I would refer you to its federal register notice which contains significant detail. However, to summarize, NMFS concluded that after considering the best scientific and commercial data available, the petitioned action (to list) was not warranted. In reaching this conclusion, NMFS determined that spring-run and fall-run Chinook salmon in the Upper Klamath and Trinity River Basin (UKTR) constitute a single Evolutionary Significant Unit (ESU). Further, based on a comprehensive review of the best data available and consistent with a 1998 status review and listing determination for the UKTR Chinook salmon ESU, the overall extinction risk of the ESU was considered to be low over the next

I believe these considerations and others were the basis for the finding that the

listing was not warranted.

Question 7. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

negative?

Answer. I believe that the effect of the settlement agreements on the recently released biological opinion was an improved level of cooperation and communication amongst federal agencies and stakeholders, which resulted in an improved biological opinion. This cooperation enabled the fishery agencies to develop a single coordinated opinion from two regulatory agencies for three listed species in the Basin. The settlement agreements relied on an atmosphere in which parties with different interests or missions found ways to work with one another respectfully and constructively. This extended to federal agencies, and we perceive that it carried over into an improved working environment amongst the agencies involved in the development of the biological opinion. Aside from that, we believe the settlement agreements are distinct and unrelated to the new biological opinion for operations of the Klamath Project.

RESPONSES OF TROY FLETCHER TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The federal government has a trust responsibility in the Klamath River Basin to the Yurok Tribe. This responsibility includes, but is not limited to, protecting the Yurok Tribe's senior water and fishing rights. Any activity within the Klamath River Basin has the potential to affect the health of the Klamath River and its fisheries resources. Any water diversions, habitat degradation, other land or water management actions are of interest to the federal government and the Yurok Tribe. The Congress and the Courts have acted to protect the Tribe's senior interests in the Klamath River Basin (see Hoopa Yurok Settlement Act 1988).

We also agree with the information provided by other witnesses who have provided more detail as to the federal government responsibilities (other than its trust responsibility) in the Klamath River Basin.

 $\hat{Q}uestion\ 2$. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario would be one where the Klamath River and the fisheries and other resources that depend upon it are healthy and thriving. One where interests of up-stream communities could co-exist with those of the Yurok where interests of up-stream communities could co-exist with those of the Tribe and the conditions necessary to improve the health of the Klamath River for benefit of everyone in the Basin. The Yurok Tribe believes that the best path for-ward to achieve this is through the Klamath Agreements. A best case scenario would also be one where the entrenched opponents on all sides of various issues come to the table once again and work to join those parties that have provided a

The worst case scenario is the status quo. We know what the status quo means; uncertainty for all the Klamath Basin communities. It means a continuing decline of the health of the Klamath River and the resources that depend upon it. It means more crises throughout all the Basin communities.

Question 3. What is the current status of tribal fisheries? Has there been improve-

ment in these fisheries in recent years?

Answer. The status of the species the Tribe depends upon varies by species and year. The Basin's fishery has declined from different species/runs returning in abundance through-out the year, to occasional years when there is an abundance of one species (fall chinook) for about 4 weeks out of year. The Yurok Tribe has only been able to have a moderate or better fall chinook commercial fishery in five of the past 30 years. By any measure that opportunity is woefully inadequate. All the other species of fish that the Tribe depends upon are in trouble.

Historically, there was an abundance of spring, fall, and late-fall chinook salmon; coho salmon, summer and winter-run steelhead; lamprey; eulachon, green sturgeon; and cutthroat trout. The run timing of these species was so diverse that Yurok People could harvest anadromous fish migrating through the lower reservation through-

out most of the year.

Currently:

 Spring chinook salmon have been blocked from most of their historic spawning grounds by dams that have no fish passage. One of the primary goals of the Klamath Hydroelectric Settlement Agreement and the Klamath Basin Restoration Agreement, is to return spring chinook to their historic cold water habitat above the Klamath River dams.

Most of the current spring chinook production in the basin is driven by Trinity River Hatchery production. The only remnant wild runs left are in the Salmon and South Fork Trinity Rivers (SFTR); abundance of these rivers has been at extremely low levels several most recent years. For example, in 1964 the SFTR had more than 11,000 spawners return, during several recent years abundance has fluctuated between less than 100 to a couple hundred spawners.

 Coho salmon are listed as threatened under the Federal and state Endangered Species Acts (ESA). The abundance of coho salmon is on an alarming trajectory

toward extinction if circumstances don't change.

• Eulachon (also known as Candlefish) have nearly been extirpated from the Basin and have been listed as "threatened" under the Federal ESA. Currently fishing for these fish does not occur due to their extremely low abundance; during several recent years no eulachon have been observed in the river.

 There is not an abundance estimate for green sturgeon, however given the degraded condition of the mainstem Klamath River and the extended period of time that sturgeon spend in the river, there is much concern regarding their

- There is also not an abundance estimate for lamprey (commonly referred to as eels). Anecdotal information indicates a substantial decline in their abundance. For example, Tribal members fishing with a simple eel hook at the mouth of the river historically harvested well over 100 lamprey in one trip to the river. Currently 15 lampreys in a trip is exceptional, with much fewer being the norm.
- An abundance estimate for steelhead is also lacking, however there is much concern regarding the status of summer-run steelhead.

Question 4. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned

as federal responsibilities?

Answer. At the request of Rep. Walden and others, the original cost estimate of \$1 billion for KBRA expenditures was reduced in 2010 by \$200 million (to \$798 million), and the implementation period was extended from ten years to 15. In fact, the Congress is now being asked for only \$300 million in new authority over the 15-year period, or \$20 million annually. As Commissioner Connor has testified, and the Congressional Research Service reported, the Government currently spends \$17-20 million annually on Klamath programs. If these funds were expended instead to implement the KBRA, the Congress and the Department of the Interior would contribute to restoration of the Basin, including its fishery, and permanent resolution of long-standing competition for its resources, including water. In addition, CRS has estimated that the Department expends \$17 million annually to address recurring resource crises in the Basin. These expenditures could be avoided through reliance resource crises in the Basin. These expenditures could be avoided through reliance instead on the balanced, flexible provisions of the KBRA. The modest additional expenditures contemplated by the KBRA represent an appropriate Federal commitment to the long-term health of the Basin and its resource-dependent populations in Oregon and California. And, even the \$300 million figure could be further reduced if Secretary Jewell and other Cabinet officials could be persuaded to make an even greater effort to expand the list of existing government programs that could be re-programmed to support the KBRA. It would be reasonable for Chairman Wyden to make a direct appeal along these lines to Secretaries Jewell and Vilsack and OMB Director Burwell and encourage them to try harder and use their discretion to re-direct funds accordingly tion, to re-direct funds accordingly

Question 5. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. There are other agricultural diversions within the Basin, especially within the Scott and Shasta Rivers, which have a substantial impact upon fish habitat and associated fish populations. The effect of these diversions upon the quantity of water in the main-stem Klamath River is less extreme, but not trivial.

The ESA and State Fish and Game code are existing authorities that could be used to minimize the negative effects of these diversions upon fish populations.

The Yurok Tribe supports that no less than 50,000 acre-feet shall be released annually from the Trinity and made available to Humboldt County and downstream

users as was provided for in the 1955 Act regarding the Trinity River.

It is critical that water from the Trinity River be made available during dry water when in river run size of Fall Chinook is projected to be large. The Yurok ears when in-river run size of Fall Chinook is projected to be large. Tribe and others have a serious concern that water from the Trinity River is necessary to protect ESA and other species of fish as they enter the Klamath River this fall. Projected Fall Chinook run size returning to the Klamath River will be the sec-

ond largest. At the same time there the Klamath Basin is in a dry water year. This combination of factors is a concern to the Yurok Tribe that there is a risk of another fish kill in the Klamath River similar to 2002. Everyone associated with the Klamath Basin should share that concern.

Question 6. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. For the most part, the dam removal studies supported the hypotheses that our biologists held regarding their effect to the river and to fish production. For example, we believed, based on the scientific evidence we had before the studies, that dam removal would be of immense benefit to fish production and long-term viability because of the expanded geographic range and access to areas of cold water during the warm summer period. This was supported by the peer-reviewed Chinook and coho salmon production computer modeling that was done.

We also believed that the impacts from sediment would be moderate to severe in the short term, but the effects would be short-lived. This was also supported by the

peer-reviewed scientific analysis done for DOI.

Perhaps the most surprising finding was the finding that the sediments did not contain significant amounts of any toxic substance. Given the legacy upstream (lumber mills, etc. in the Klamath Falls area), it was plausible that toxic substances of various types might be found in the reservoir sediments. Thankfully, despite a rigorous sampling protocol, no significant amounts of toxic materials were found in the

reservoir sediments, which greatly simplifies the removal process.

Another surprise was that the Chinook models showed a very significant response in production from opening areas under and above the existing hydropower reservoirs, while at the same time, providing flows under KBRA conditions. While a positive response was expected, the Chinook modeling showed that it was possible that the increase in Chinook salmon production from the Klamath might be greater than anyone expected (80 percent increase in Klamath/Trinity basin Chinook salmon production with dam removal and KBRA flows for the period 2021-2061 when compared with the no action alternative) This same study concluded that there was a 97 percent chance of improvement of Chinook salmon production under the dam removal with KBRA flows scenario compared to the no-action. This study was important because it indicates that not only will the fish benefit from dam removal and KBRA implementation, but the benefit is likely to be very significant.

Question 7. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. The Yurok Tribe stands by the Klamath Agreements. The relationships that the Yurok Tribe and others have created will continue. At the same time, as the health of the Klamath River and the resources that depend upon it decline, the Yurok Tribe will take whatever actions necessary to restore and protect the Klamath River.

RESPONSES OF LEAF G. HILLMAN TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The federal government has a legal and moral responsibility to resolve

the Klamath Crisis which it played a fundamental role in creating.

The federal government owns and manages about half of the Klamath Basin's 15,000 square miles. For the past 150 years, the federal government has allowed and encouraged large scale resource extraction industries such as gold mining and timber harvesting. The federal government led and financed the development of irrigated agriculture and provided incentives such as homesteads to non-native settlers to the area. Irrigation projects led to a dramatic alteration of native wetlands, river channels, and natural lakes forever affecting water quality and fisheries. Over the course of the last 100 years, the federal government permitted the construction of a series of dams that comprise the Klamath Hydroelectric project that further damage water quality and fisheries

At the same time, the federal government permitted and encouraged the displacement of the Klamath Basin's native tribes with policies of forced relocation and the

seizure of tribal lands.

Today, because of a 150 year track record of poor policy decisions by the federal government, the Klamath Basin's diverse communities live in a state of perpetual crisis. Put simply, the federal government made too many promises to too many people. The Klamath's natural systems have been asked to do too much. The result is an over allocation of water and an ecosystem that has been degraded to its breaking point. This point is evidenced by regular fish kills and blooms of toxic algae. In re-

cent decades, this has led neighboring communities to engage in political and legal fights for their own survival with no clear winner.

We assert that the federal government has a moral as well as a legal obligation

to address the problems that it played a fundamental role in creating.

In recent years, the Klamath's diverse communities came to realize that we all share a common destiny. This realization led community leaders to map out a strategy to balance water use, restore fisheries resources and water quality, but to do so in a manner that allowed both fishing and agricultural communities to thrive. This strategy is embodied by the Klamath Basin Restoration Agreement and Klamath Hydroelectric Settlement Agreement.

We assert that enactment of the Klamath Agreements would be a meaningful step towards meeting federal obligations and responsibilities to Klamath communities as

well as all Americans who share in ownership of this national treasure.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario for the Klamath Basin is the enactment of the Klamath Agreements. This would balance water use between the environment and agriculture, dramatically enhance sport, tribal, and commercial fisheries, and improve living conditions for Klamath River tribes. The Agreements would stabilize local and regional economies by reducing the uncertainties currently associated with fisheries and agricultural enterprises in the region.

The worst case scenario is that Klamath communities continue down the current path of seasonal crises of ever increasing intensity. Many Klamath Basin businesses and families are already one drought or fish kill away from economic ruin. Extinctions of rare and endemic species will lead to the irreplaceable loss of our shared natural heritage and biodiversity. Similarly, the cultural diversity of area tribes will be at risk as cultural practices dependent on access to specific species of plants and animals could be lost.

Question 3. What is the current status of tribal fisheries? Has there been improve-

ment in these fisheries in recent years?

Answer. The Karuk Tribe harvests salmon with traditional dip nets at one location. Our fishery is gear limited and time and work intensive. Last year and again this year, runs of fall run Chinook are strong as compared to runs in recent decades. However, it should be noted that the magnitude of fish runs naturally fluctuate with ocean cycles that in large part explain the recent large runs of fish. We also note that even these years of relative abundance are low as compared to historic runs

What has not improved is the diversity of fish runs. Karuk are dependent not only on fall run Chinook, but spring run Chinook, coho salmon, summer and winter runs of steelhead, green sturgeon, and Pacific lamprey. Runs of these species continue to decline. Spring run Chinook and coho salmon can no longer be fished at all due to low abundance. This means we have very limited fishing opportunities as we can only fish for one seasonal run of fish. So whereas Karuk once fished nearly continuously throughout the year, today we are limited to about three or four weeks of fishing a year.

Question 4. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned

as federal responsibilities?

Answer. Yes. However, Parties to the Klamath Agreements have been hesitant to engage in additional efforts to cut the KBRA budget without some guidance from congress or the administration regarding the size of the cuts deemed necessary. The KBRA is carefully constructed to address the needs of as many stakeholders as possible. Cuts to one program could threaten a specific Party's commitment the agreements

At the urging the Administration as well as members of Congress, we did reduce the original budget proposed in the 2010 agreements by nearly 20 percent. It is also of note that in cooperation with federal negotiators, the non-federal parties have estimated that at least \$261 million in the 2011 budget proposal is covered under base funding for existing programs.

The Karuk Tribe is willing to consider further reductions in the budget proposal We are mindful that the nation's economic recovery is fragile and of the general need to reduce federal spending. We do hope that efforts to reduce the KBRA budget remain committed to the Agreement's core principals and that cost cutting measures will be shared equitably among parties.

In regards to non-federal contributions, we note that the KHSA is exclusively nonfederal dollars and that many elements of KBRA programs are funded by Oregon and California. In all, Parties estimate that the non-federal funding for the Agreements is \$549 million over 15 years. We are eager and willing to explore partnerships with non-governmental organizations to further reduce federal costs.

Question 5. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. This is largely a subjective question. From our perspective and that of the fishery, we believe that there are existing authorities and statutes that allow federal agencies to increase flows in the Klamath River and its tributaries. We note that these actions would not address the water needs of agricultural communities and would undoubtedly lead to years of litigation between Parties. We are unaware of alternatives to the Klamath Agreements that would make better use of water supplies in a manner that a large majority of stakeholders would agree to.

Question 6. In your opinion, what were the most surprising findings in DOI's dam

removal studies? What were the most controversial parts?

Answer. Among the most surprising, and encouraging, findings was that the studies concluded that the most probable cost of dam removal was \$292 million-\$158 million less than the \$450 million cost cap contained in the KHSA. This suggests that the cost-cap negotiated in the KHSA is adequate to cover dam removal costs and that California's contribution may be more affordable and therefore politically tenable than originally contemplated. Similarly surprising was the willingness-to-pay estimates developed from the nonuse valuation studies used in the economic analysis. The discounted present value estimates from the Klamath River Basin Restoration Nonuse Value Survey concluded that the public was willing to pay \$84 billion to see the Klamath Basin restored. This demonstrates that the public is well aware of Klamath Basin issues and that it cares deeply about this iconic American landscape.

Question 7. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. Yes. Tribal support, similar to that of other governments at the table, can change as new leaders are elected. It is possible that a future council may view the Klamath Agreements less favorably than the current Tribal Council. Also, we cannot wait indefinitely for congressional action while water quality and fisheries continue to suffer. If congressional action is delayed to the point that we cannot meet the timelines established in the KHSA for dam removal, we will forced to consider pursuing dam removal through other means. Similarly, we will be forced to pursue other means to improve Klamath River flows

Given the magnitude of the current crisis and the broad base of support for the Agreements, we think the time is uniquely ripe for congress to act. If this opportunity is lost, it's difficult to believe that our opportunities for congressional action

will improve in the near future.

RESPONSES ON BEHALF OF HOOPA VALLEY TRIBE TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The federal responsibility in the Klamath basin should be guided by the following principles and facts:

a) The Klamath River is an interstate stream; the United States has interests in and responsibilities on behalf of Indian tribes and other federal programs in both Oregon and California. A settlement of disputes over federal interests in Oregon should not come at the expense of federal interests and other rights in California.

b) Any action by Congress to reconcile tribal, non-Indian development and fishery/environmental needs must be carried out subject to the federal Indian trust responsibility that requires all federal agency heads to exercise their discretion in program management in a way that provides full protection to tribal fishery and other trust assets. This fiduciary standard requires that decisions be based on the best available scientific information. For example, in the case of anadromous fishery needs in the Klamath River, the best available information, and thus the starting point for any decision making is the peer-reviewed Klamath River Basin Instream Flow Study conducted by Hardy et al. (2006). That study was prepared at the request of the federal government in consultation with tribal trust beneficiaries. Substitution of guess work or assumptions that rely on future congressional actions for which there is no present policy or funding support are not credible scientifically and are not acceptable.

c) No legislative proposal to address Klamath basin water issues will include a modification of the federal trust relationship to which an Indian tribe has not consented. The Indian tribes of the Klamath/Trinity Basin have rights that arise from aboriginal law, treaties, executive orders and statutes. Each tribe has its own relationship with the United States based on those documents. The United States has recognized rights in some tribes but has refused to recognize fishing and water rights claims of other tribes.

d) Any tribe that agrees to waive its rights in exchange for a settlement benefit must do so on the record and recognize that the waivers will be subject to enforcement by the federal trustee and non-waiving tribes, among others. For example, where one tribe has agreed to restrict its harvest in expectation of future settlement benefits it cannot shift its fishing effort to stocks to which a non-waiving tribe is entitled. Any settlement of Klamath basin water issues must recognize senior tribal rights, involve consensual settlement terms and not make guarantees to junior interests at the expense of non-consenting senior right holders.

e) No legislative proposal will be based on the substitution theory of Indian trust resources set out in Three Affiliated Tribes of the Fort Berthold Reservation v. United States, 182 Ct. Cl. 543, 390 F. 2d 686 (1968).

f) The Klamath basin's ecology, hydrology, fish stocks and environmental health are interrelated; they are not susceptible of being artificially segregated and isolated by political boundaries or political decisions. The legal and geographic reality is that the Klamath River and its largest tributary, the Trinity River, are part of a single integrated Klamath Basin watershed and must be managed in an integrated and coordinated manner. One of the main reasons why the Klamath Basin Restoration Agreement (KBRA) has not advanced is because it rejects or ignores this reality. Today, the Klamath River water users in Oregon are relying on Trinity River water to offset potentially devastating impacts from uncoordinated basin-wide water management that is occurring in the Upper Klamath River.

g) Operate in compliance with Indian treaties and trust obligations that are set forth in law, including the mandate that the lower Klamath River be managed consistent with the Law of the Trinity River, (the statutes, permits, judicial decisions, agreements, and administrative decisions that govern the use of Trinity water, including Pub. L. 104-143, section 3(b)). The Tribe has submitted a proposal to accomplish this in our Joint Directorate Proposal that is described in the response to question 2, below and as designed in our work on Pub. L. 99-552.

—The actions of the federal government historically have resulted in "giving away the river" multiple times to numerous conflicting interests. For example, first the federal government reserved rights to water and fish in the river to the tribes in Oregon and California. Subsequently it developed irrigation projects (Klamath Irrigation Project and Central Valley Project) that appropriated Klamath River basin water. Then it created wildlife refuges and opened land to homesteaders for private irrigation development. It also licensed hydroelectric generation. The grants by the United States substantially exceed the water supply available to meet the needs of those who relied on the United States' grants. The federal government has the responsibility to mitigate the consequences of its actions, but in doing so, it may not favor junior rights over senior rights unless there is a mutually agreeable means and terms for doing so.

h) The law is well-established that federal agencies are bound by their trust responsibility to Indian tribes to limit their discretionary actions in managing federal resources in a way that does not impair the tribal property rights that the United States holds in trust.

i) The law is well established for licensing hydroelectric projects. Whatever merits the Klamath Hydro Settlement Agreement (KHSA) may have had as an alternative to the FERC licensing process, the indefinite delay in implementing the KHSA because of inaction on legislation to authorize the KBRA results in a damaging status quo for the environment and tribal trust resources affected by the PacifiCorp project.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case for the basin would be based on the principles that:

a) all needed Klamath/Trinity Basin water supplies would remain in the Klamath basin to serve Klamath basin needs prior to any diversion being made

to California's Central Valley and that the Bureau of Reclamation's management of the Klamath River and Central Valley/Bay Delta plans be done in a manner that is consistent with the Law of the Trinity River. Today, the Klamath and Trinity water supplies are being managed as isolated water sources, creating conflict between Oregon and California, as well as within each State. These actions have resulted in crisis water management that is inefficient, costly and often unsuccessful in protecting either environmental or economic values. One river system's over allocated water supply issues cannot be solved by stealing water from another.

To address these problems, the Tribe has provided the Department of the Interior its Joint Directorate Proposal that would integrate a Klamath/Trinity Basin-wide management structure coordinating the management responsibilities of tribal/State/federal governments. The Tribe worked to establish a similar structure in 1986 when Pub. L. 99 552 was enacted. Unfortunately, Pub. L. 99-552 expired in 2006 and was not reauthorized. The advantage of the Pub. L 99 552 and Joint Directorate approach is that the Klamath/Trinity Basin would be managed as an integrated whole consistent with the Law of the Trinity River in a way that provides opportunities to design and implement planned water allocation schedules that are based on real time scientific requirements for water to supply fishery, environmental, and other beneficial uses. This proposal includes mandatory modeling requirements of available Trinity water for the Bay Delta Plan and other diversions to the Central valley Project (CVP)

This process would also be designed to produce science-based and financially feasible options for irrigation users for short and long term deliveries

based on varying water year classifications.

The Joint Directorate would also provide a meaningful process for looking at the fiscal realities of present-day federal budgetary concerns. In contrast, the KBRA negotiators developed a settlement concept plan that is heavily dependent on federal appropriations. The Hoopa Valley Tribe tried to warn the settlement parties about this in the negotiations but our concerns were dismissed. Unfortunately, the federal government's representatives at the KBRA/KHSA negotiations did not provide any guidance that would have helped to facilitate the development of a plan based on federal fiscal realities. This conduct has led to Senators Wyden and Merkley having to identify in their July 3 letter convening the Klamath basin task force the major task of reducing federal costs of a Klam-

b) water management decisions in Oregon would be made with full regard for Klamath/Trinity basin needs in California and vice versa.

c)establishment of a joint directorate/Pub. L. 99-552 process for Klamath basin water management that includes water and resource management structures for federal, state and tribal management agencies, coupled with transparent scientific review and public and stakeholder input.

The worst case for the basin would be if current settlement terms were to become enacted, which: (1) are not brought into alignment with the realities that Chairman Wyden identified at the June 20 hearing, including the political and financial obstacles that stand in the way of the KBRA, and (2) do not promote Klamath/Trinity

Basin integrated management.

The KBRA was signed in February, 2010. Since then, we have faced annual fisheries crises in the Klamath River. In 2012 and 2013, fish-kill conditions in the Lower Klamath River called for preventive measures by the Bureau of Reclamation. Yet, Commissioner Connor stated at the June 20 hearing that, under the KBRA, more water would have been delivered to Upper Klamath than was provided in those years. Where would that water come from? Promises of more water to irrigation in Oregon and calls for less funding for fishery protection create the appearance of a political shell game that no one can win. It also leaves residents of the Klamath/Trinity basin lurching from water crisis to water crisis. Chaos is no substitute for well thought out, scientifically based resource management. Certainly, monthby-month short term crisis management of the Klamath/Trinity Basin is far from being a solution for tribes, States, stakeholders, and the Federal Government.

Under the fiscal realities described by Chairman Wyden, should the reinstatement of the obligation of Klamath water users to contribute to restoration be reconsidered? Water development and withdrawals of water supplies from any water system have their impacts and mitigation responsibilities. Taxpayer subsidy of these obliga-

tions appears to be an unsustainable policy.

Klamath legislation was not introduced in the 111th Congress. Legislation was introduced in the 112th Congress, but died. We are now into the 113th Congress and Chairman Wyden has concluded that the KBRA cannot be enacted in this political climate. The federal government's water management decisions in 2013, as in years past, leave the Bureau of Reclamation with no water from the Klamath Project facilities for fishery protection in the lower Klamath River. Central Valley Project contractors filed letters of opposition to using Trinity Division water for fishery protection because of Klamath management. See letter to Bureau of Reclamation Mid-Pacific Regional Director David Murillo from the San Luis & Delta Mendota Water Authority (May 31, 2013). Conditions are ripe for a catastrophic fish kill this year. This is not only the worst case scenario; it is on the verge of becoming the worst case reality that can reoccur annually under the KBRA plan.

The Law of the Trinity River cannot be fulfilled by obligating Trinity water to Central Valley and Bay Delta in amounts that are required to preserve and propagate Trinity and lower Klamath River fisheries. Yet, the Administration continues to deliver Trinity water to Central California and Klamath River water to southern Oregon in disregard of those obligations. By far, the worst case scenario for future Klamath/Trinity Basin management would be to enact short term, unrealistic plans that degrade water and fishery/environmental management to a year by year and

month by month seasonal approach.

Question 3. What is the current status of tribal fisheries? Has there been improve-

ment in these fisheries in recent years?

Answer. The Hoopa Tribal Fishery historically provided sustenance to the Hupa people 12 months of the year. The annual cycling of a diversity of species and run timing provided a dietary wealth to the indigenous people. Today, the fishery is typified by moderate runs of fall Chinook, followed by a much lesser abundance of spring-run Chinook. In early spring, the Hupa People traditionally would access strong runs of green sturgeon and Pacific lamprey, both of which remain severely depressed since the completion of the Trinity Division of the Central Valley Project (1963). Coho salmon, which dominated Hoopa harvest in the fall, remain listed as "threatened" under ESA. Finally, natural populations of winter and fall steelhead remain at depressed levels of abundance and are largely replaced by hatchery production

The Tribe has fought for decades to overcome the devastating impacts of federal actions that have been destructive to our fishery. Restoration works when it is based on sound science and faithful adherence to prescriptions for fishery restora-

tion.

Thus far, however, restoration of Coho salmon is not occurring. The Southern Oregon/Northern California Coastal (SONCC) Coho salmon were listed as a threatened species under the Endangered Species Act (ESA) in 1997. A public review draft recovery plan was published by the National Marine Fisheries Service in January 2012, but has not yet been completed. Klamath River Coho salmon stocks are at extreme risk of extinction.

The fact that Coho salmon are a threatened species continues to cause adverse effects for the Hoopa Valley Reservation. Activities that potentially affect water quality or quantity must be evaluated to determine if they would adversely affect Coho salmon. Where a construction project, or timber harvest is planned, for example, and it is likely that the activity could adversely affect Coho salmon, the lengthy consultation process leading to preparation of a Biological Opinion is triggered. The consultation process, which is made necessary only by the depressed status of Coho salmon stock, severely impedes our Reservation economy.

Discussions have continued for decades with Federal managers regarding Klamath Project and Central Valley Project management of Trinity River Division water supplies, designing integrated hatchery/natural stock fishery management plans, and statutory mandates for fish restoration activities that have produced less than

optimal forward movement.

But, improvements are being made, including:

 A scientifically-based hatchery review that is presently being negotiated with federal managers for integration into the Trinity and Iron Gate fish hatcheries;

 After years of underfunding, the previous Reclamation Mid-Pacific Regional Director, Don Glaser, took major steps to carry out federal fish restoration in the Trinity River by providing nearly full funding for the Trinity River Restoration Record of Decision (2000);

• Pub. L. 99-552 provided for Klamath/Trinity Basin management actions that included the Klamath River Task Force and the beginning of a communication and coordination framework for Klamath and Trinity River activities. These positive steps led to legislation in 1984, 1992, 1996, and 1998 designed to build a coordinated management framework for the Klamath and Trinity Rivers that is still providing benefit today. The unfortunate lack of reauthorization of Pub. L. 99 552 in 1996 has left management and coordination voids that have not

been filled by integrated federal agency management in their Klamath, Trinity and CVP offices.

Question 4. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned as federal responsibilities?

Answer. Although the Hoopa Valley Tribe's vested rights under federal law in the Klamath basin are beyond dispute, the Tribe has been excluded from discussion about the KBRA since 2010 because it is not a party to the agreement. The Tribe declined to sign the agreement because it identified many of the problems that Chairman Wyden now acknowledges prevent the KBRA from proceeding. Rather than punish the Tribe for its insight, the KBRA parties should invite the Tribe back into the discussion. We appreciate Chairman Wyden speaking on our behalf in that regard.

As discussed above, it is unfortunate that federal representatives who participated in the negotiations were not forthcoming about the United States' financial situation while the KBRA was being developed. It is just as unfortunate that "paring down" is the only option that is available, especially since the intent seems to be to pare at the expense of fishery restoration plans. The United States' financial problems are not likely to vanish soon, therefore a paring down effort will continue at least over the next decade or more. We would prefer to participate in the design of a plan that is based on realistic funding levels and reliable water supplies. As the federal representatives in the KBRA negotiations stood silent, the KBRA parties developed funding proposals that in many cases masked hard choices those federal officials needed to make about scarce water supplies. We fear that the federal representatives may do the same in the paring down process; that is, they will stand by while others make representations that fishery restoration can be done on the cheap and with less water. The fact is that paring down of water deliveries is going to be a critical component of any revised from of a KBRA.

Question 5. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and feasible under existing authorities?

Answer. The extensive irrigation development in the high desert area surrounding Upper Klamath Lake is no longer sustainable. The KBRA and KHSA fail to respond to this reality or to act with the realization that climate shift is making more acute the problem of too much water being promised to too many users.

The KBRA does not have a water quality plan and has an ill defined strategy for cleanup of nutrient pollution in the Upper Klamath Basin. The need for marsh and lake ecosystem functioning is not acknowledged. Yet, to improve water quality in the Lower Klamath River and address the current crises caused by toxic algae and fish disease, the ecological function performed by the Lower Klamath Lake area must be restored.

The Klamath Basin water supplies include, of course, the Trinity River. Yet the contributions to the Lower Klamath River from the Upper Basin cannot effectively be replaced by an injection of emergency water from the Trinity River. Although emergency measures of that kind were performed in 2002 and 2013, and are planned for 2014, those late summer releases will not help restore fish populations in the Upper Klamath River and are damaging to the tribal fishery on the Trinity. A basin wide approach which controls both diversions from the Upper Klamath and diversions from the Upper Trinity to the Central Valley project must be used.

Question 6. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. The Environmental Impact Statement for Klamath facilities removal prepared by the Interior Department was disappointing. The EIS contained an incomplete evaluation of alternatives, failed to evaluate the impacts of the KBRA, and ultimately failed to meet the purposes of NEPA to facilitate informed decision making and public participation. For example, the description of the no action alternative was inaccurate and misleading because it presumed that the FERC licensing process for the hydroelectric dams would remain stalled, notwithstanding the requirements of law. The EIS failed to evaluate the effects of the KBRA's guaranteed minimum irrigation diversions. Throughout the EIS, the effect of the KBRA water diversion "limitation" was inaccurately described. Not only is 100,000 acre feet not reduced from current demand through the KBRA, but the KBRA water diversion results fall well below the ESA requirements established in Biological Opinions. Buried in the EIS is Appendix F "Exceedence Flows for No Action and Dam Removal Alternatives Based Upon Index Sequential Hydrology." Appendix F makes clear that the EIS proposed action (which includes KBRA flows) produces river flows well

below the Hardy, et al. (2006) recommendations for in stream fisheries needs in all exceedence water year types except extremely wet hydrological conditions.

The EIS alternative analysis was also inadequate because it failed to evaluate a no KBRA alternative. Further, it failed to evaluate a federal takeover alternative pursuant to the Federal Power Act. In addition, it failed to evaluate—or even consider—a water quality improvement strategy that would lead to compliance with the water quality standards of the Hoopa Valley Tribe and the State of California.

One of the most controversial parts of the EIS was its failure to disclose that exe-

cution and implementation of the KBRA would result in an historic termination of the United States' trust relationship with the Klamath Basin Indian tribes who have not consented to provisions subordinating their reserved water and fishing rights. In the KBRA, the United States purports to provide assurances, without the consent or approval of the Hoopa Valley Tribe, that the United States will not assert the Hoopa Valley Tribe's tribal water, fishing, or trust rights in a manner that will interfere with the Klamath Reclamation Project's priority right to divert 330,000 acre feet or more of water from the Klamath River. Those assurances would effectively terminate most of the United States' fiduciary obligations to the Hoopa Valley Tribe. Although this issue has been a highly publicized area of controversy, the EIS fails to mention it.

One of the most striking parts of the Secretary's analysis is that it is based on the unrealistic and un-fundable KBRA plan. Frankly, there is no reason for federal managers and scientists to develop "scientific" analysis on plans that could never be implemented as written. Again, the responsibility for this defect in the KBRA is attributable to the federal managers of the KBRA/KHSA negotiation process.

In addition, the KBRA ignores Trinity legal obligations. Arbitrarily disconnecting the Trinity River, the largest tributary of the Klamath River and producer of half of Klamath origin fish, from the needs of the Klamath makes no sense and leaves management options for the Klamath/Trinity basin with far fewer tools to address problems than are available.

Also, the Secretary's dam removal plan ignores the Administration's own policy and legal positions on the nature of tribal trust obligations. The Secretary's plan treats all tribes as if all have rights from a single legal source. As discussed above in Response 1(c), this is not the case. Even the Department's own written legal positions are inconsistent with positions it takes in the dam removal study. Efforts to have the administrative record clarified regarding the United States' formal positions on Klamath/Trinity Basin tribal trust obligations were summarily dismissed.

Among the most controversial Indian policy provisions of the KBRA and the related KHSA is that the Secretary has linked tribal trust obligations regarding water management to the dam removal plan when there never has been a legal connection between the two. The Secretary's policy choice to benefit the Klamath Reclamation Project by supporting congressional authorization to waive or abandon federal trust obligations to any tribe that does not consent to the KBRA has also created signifiorder 13175, as reaffirmed by President Obama on November 5, 2009). The Affiliated Tribes of Northwest Indians (ATNI Resolution #09 63 and ATNI Resolution #12 64) and the National Congress of American Indians (NCAI Resolution #PSP 09 051 (2009) and NCAI Resolution #SAC 12 017) have already reacted against this backsliding from the progressive and positive Indian policies that we have experienced over the past 50 years.

Today, even though the problems associated with the KBRA are manifest, the KBRA remains connected to the KHSA. It is unfortunate that Federal Government officials spent thousands of dollars and several years pursuing a Klamath basis solution that they either knew or failed to understand was not able to be implemented. Under any other circumstance, the Secretary would have had direct legal obligations to deal with the problems associated with operation and relicensing of the Klamath River hydro dams pursuant to the Indian provisions of the Federal Power Act. Instead, the Administration is using the federal trust relationship as a bargaining chip against the tribal trust beneficiary.

Question 7. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. For the reasons stated in these responses, the KBRA cannot be imple-

mented in its present form. The Hoopa Valley Tribe has constructive and creative proposals that it has repeatedly brought to the KBRA discussions. Now that there appears to be a fresh appreciation for the difficulties with the KBRA that have long since been identified by the Tribe, maybe a new and successful approach can be taken. The Tribe stands ready to participate in any such effort.

Certainly, the problems in the Klamath River must be fixed. Klamath River water is over-allocated. Likewise, the Trinity water is over-allocated. The Secretary has existing authority and responsibilities to make the necessary adjustments to Klamath Reclamation Project and CVP water operations as well as Delta Planning models to preserve the integrity of the Trinity River Restoration Program, Trinity Dam cool water pool, and meet Trinity River and Lower Klamath River needs and rights. It also has the authority to bring the Trinity and Iron Gate Fish Hatcheries in line with modern day mixed stock fisheries.

The Secretary, however, has no authority to satisfy the Klamath Project demands for water at the expense of tribal trust obligations and fishery and environmental responsibilities. We oppose the linkage of the KBRA with the KHSA and will oppose legislation that would maintain that linkage.

In summary, the Tribe has offered a comprehensive and sustainable long term approach to Klamath Basin-wide management with the Joint Directorate and use of concepts previously provided for in Pub. L. 99 552. In the meantime, the urgent need is for the Secretary to implement measures in the next several weeks to protect the lower Klamath fishery from a catastrophic die off in 2013 and beyond.

RESPONSES OF BECKY HYDE TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The federal government plays a significant role in the rural Klamath Basins' economy from our headwaters to the ocean. Because agriculture along with timber are the two pillars of our communities economy today, decisions made by the federal government have a direct tie to our regions financial stability, or lack of stability. For agriculture water certainty, regulatory certainty and competitive power remain the three drivers of stability. All three are dependent on careful decision making by the federal government, and recognition of the federal governments

unique role and controlling interest in our economy.

Reserved water rights and the Klamath Tribes' priority to instream flows in the tributaries to Upper Klamath Lake are affecting the certainty of agriculture water in the off project tributary agricultural communities above the lake. During the current drought, a minimum of 95,000 surface water irrigated acres, which primarily produce grass necessary to support the basins' livestock industry, are going dry or face water shut-offs because there is no settlement with the Klamath Tribes, and their trustee, the federal government. Settlement in the off project lands has been put on hold for years as crisis on other fronts— where the federal government has responsibility namely around biological opinions relating to the federal governments Endangered Species Act—have taken time and resources to deal with. These issues bubbled up to the surface when the Klamath Reclamation Project had irrigation water shut off in 2001. The off project communities lagged behind in creating a completed water settlement and so their lands along with the refuges, another responsibility of the federal government, are going dry today. The Klamath Basin Restoration Agreement (KBRA) includes a section 16 that was created with the intent is to settle the outstanding issues in the off project tributaries. Other sections in the (KBRA) would address federal responsibilities around the Endangered Species Act, Clean Water Act and competitive agricultural power rates similar to other rural agricultural communities in the West.

Question 2. In your opinion, what is the "best case" scenario for the basin in the

future? What is the "worst case" scenario?

Answer. The best case scenario for the Klamath Basin is to live with a reasoned water balance, which provides water that sustains an agricultural economy, while providing water and habitat restoration to sustain a healthy fishery; and, adequate water to provide for the health of the regions national wildlife refuges. Years of negotiation have gone into developing a strategy for balancing the water to meet the

important outcomes above.

The worst case scenario is what the off-project community and the refuges are experiencing this summer. No basin wide drought plan in place to grapple with the unique "drought year types" and no long-term water balance in place for the basin. This worst case scenario has basically played itself out in a continuing rotating crisis throughout the basin. In 2001 it effected the Project Farmers, in 2002 it effected the Tribal communities with massive lower river fish die offs. The ocean fishing community has been effected as well. When true solutions are not implemented, like the water balance in the KBRA, we can expect more crisis circumstances playing out from the headwaters to the ocean, with the result being continued harm to the region's economy.

Question 3. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned

as federal responsibilities?

Answer. Parties to the KBRA did pare the agreements down by 18 percent in 2010 in response to feedback about the KBRA budget. It's Upper Klamath Water Users belief that more cuts can be made to the overall KBRA through careful consideration in the various line items. However, this is at its heart an Indian Water Rights Settlement, dealing with federal issues that have built up over decades. We cannot simply kick the can down the road, and not solve the base problems. If the goals can be met with less dollars, that will be acceptable.

It seems that with the renewed federal interest by political leaders, other private

dollars may be drawn to the solution. There's a strong interest in the basin from the non-profit community, and I see this gaining strength and momentum into the future. The state of Oregon for example has committed to the basin through the Oregon Watershed Enhancement Boards, (SIP) program. We should not rule out any partners that can bring health to the Klamath Basin. Working toward a reasoned solution helps guide private dollars. Nobody wants to invest in a train wreck. Investment in building a future for one of the nations national treasures, the Klamath Basin, based on a reasoned plan, is much more compelling. The federal government sets a tone for how the basin is viewed by its own willingness to engage.

Question 4. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. The water balance in the KBRA is designed to address in a reasoned way the water supplies in the Klamath Basin. Years of work have gone into the basic structure under the water balance.

Question 5. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. If Congress fails to act on agreements to move the basin forward out of rotating crisis, that is not in our hands. We will continue to support reasoned agreements that bring the basin out of crisis and are thankful that leaders who can move this through Congress are engaged.

Question 6. What is the likely outcome of the recent call on water made by the

federal government and the tribes? For instance, how would it affect project irriga-tion allocations for the remainder of the water year? How might it affect off-project

irrigators and ranchers?

Answer. The outcome of the recent call on the water to the off project by the federal government and the Tribes is that it's likely that a minimum of 95,000 irrigated surface water acres will go dry. Much of the off project has already been shut off, and is drying out. The Project irrigators are best suited to speakabout the impacts this year has on them. The off project is seeing families need to move livestock, or sell animals early to deal with the impacts of the calls. This potentially does millions of dollars worth of harm to the off project community.

Question 7. You mentioned the need to bring these 'fiercely independent' off project families to the negotiation table and to get them involved in this process. What do you think are some ways in particular we could get them involved?

Answer. We have some ideas at Upper Klamath Water Users about how our delightful and fiercely independent families in the off project can be better drawn toward a settlement that brings power, regulatory and water security to families irrigating in the off project.

I think the single most important factor that will bring families to the table and get them involved in the process is if they believe that our state and federal government are seriously engaging these issues with an eye toward helping create water security, competitive power rates and regulatory security. The families need to know that they are engaging in a process that is moving toward an actual settlement for their family. I believe the task force with solid across the board convening from our

elected officials is a good step forward and helps send that message

I also think education around how a settlement can be achieved in the off project is important. A water settlement with the Klamath Tribes will be achieved if a critical mass of individual farm and ranch families representing their own private property rights and their own water rights settle. So, one family does not create a settlement, but many families together do. This structure is different than the Klamath Project irrigators who have established irrigation district boards that make the decisions, and were able to sign off on settlement many years ago. Settlement with the off project is different, families maintain control and independence, but will need to join together with other families to create a critical mass and therefore a water settlement. How to settle needs to be clear. The process needs to be transparent, and inclusive.

There are various established groups in the off project that have been at settlement tables on and off for years representing clusters of landowners, and there are some families that as individuals have worked to create settlement outside of an established group. None of these groups have ever represented all of the off project irrigators. None of these factions at this point even represent the majority of families, as far as we can tell by looking at the data. The off project has been roughly divided on these issues in the past with families either affiliating more closely with a settlement approach or a litigation approach with their time and dollars. Both approaches have been seen by individuals as a serious path forward. Some families actually belong to more than one group. Some families don't belong to any group. This has created division and misunderstanding in the off project. At the end of the day families have just tried to do the best they can to bring stability to their farms and ranches.

I think we bring more people to the negotiation table, and get more families involved when the groups that have been most involved in the past put aside their bickering and get to work. Every family in the off project should feel like they own a part of this settlement, and it's in their best interest to participate. Regardless of what has happened in the past-we should look forward to how we put the components together to create a stable and healthy agricultural community. I've talked to many families across the spectrum of groups over the last several weeks since the hearing that Senator Wyden held. I believe families in the off project want to get along with one another and be comfortable as neighbors, and they want a settlement. Ranching communities typically look out for one another, and the division has been dispiriting for everyone. I have not heard any family say that they don't want a settlement.

I also think it's critical that families and the interested community at large understand what the alternative to settlement looks like. We have a taste of it today, as we live with the early results of the 35 plus year adjudication process playing itself out. Having your water shut off and watching land even with very good water rights dry up, is a painful testament to where we find ourselves today. If families choose to continue on the litigation path what are the odds of success? If we continue to fight, when will we see the fruits of our labor? Will it bring greater or less security to the community? Will it address other outstanding issues like the need for competitive power, and the regulatory issues that face us?

The bickering in the off project has simply created confusion both for landowners who are affected and need to make decisions, and also for the community at large. Being transparent to each family about what is happening as we move forward is critical, and yet not simple. How can we best keep hundreds of landowners informed as we move forward? All levels of government can help be a part of this transparency. Neighbors can help one another by reaching out and trying to understand the views on each side of the fence that has divided us. The concept of what a settlement need to look like must circulate freely in the community.

The Klamath Tribes have said repeatedly that they would like to have a settlement with the off project operating under section 16 of the KBRA. They have printed in the newspaper the basic framework of what that settlement might look like. This is great time to get the off project together, through whatever means we can to help create this settlement.

RESPONSES OF JOHN LAIRD TO QUESTIONS FROM LISA MURKOWSKI

 $\it Question~1.$ In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. At the turn of the 20th century, the federal government, under the guise of the Reclamation Act, turned the wetlands of the Klamath Basin into a series of dikes and canals for farming purposes. It then encouraged WWI veterans and others to come to the region, offering them free Klamath project parcels to farm. At that time, there was a cultural ethos about going west to create greater opportunity and populate the more barren corners of the nation and the federal government actively cultivated this in the Klamath. This federally incentivized migration created a new demand for electricity that drove the development of the hydroelectric facilities Pacific Corp now operates, including those dams considered for removal under the Klamath Basin Settlement Agreements.

The first dam of the four at issue here was built in 1918, the last in 1962 under federal license issued by the Federal Regulatory Energy Commission (FERC). Subsequently, in 1966 a massive fish-kill was recorded by the press, though Basin tribes

chronicle a loss in their harvest even earlier than this. Today the algae behind Copco I is so severe it affects recreational users, prompting multiple federal agencies to get involved in restoration and water quality efforts. Pacific Corp's license having now lapsed, FERC finds itself once again charged with relicensing these dams. Yet this time, it faces the negative consequences of historic federal decisions, and the attendant outcry from other water users in the Basin who seek retrofits and upgrades that have the potential to be extremely expensive-an expense that will be

borne by ratepayers per federal law.

The federal government is also trustee for six recognized Basin tribes and continues to have a fiduciary duty to promote their sovereign rights as weighed and considered against the backdrop of the public trust. This responsibility is underscored by a continual drought crisis that impacts tribes, farmers and fisherman alike—resulting in nearly constant demand for federal relief from all sectors. This federal responsibility is also framed by a modern understanding of how these historically inter-connected Basin uses implicate the environment and sustainable management practices. Finally, though not least in importance, an emerging body of scientific evidence contends that these issues will only be exacerbated by climate change over the coming century, an issue which will place the federal government

in a key emergency management role.

In short, the federal government continues to operate the Klamath Project, manage and control the wildlife refuges, and exercise broad public and tribal trust responsibilities which require significant work and investment to ensure the continued viabil ity and health of the Basin's diverse population with or without the dams. It also remains responsible for ensuring compliance with a host of federal laws, not the least of which is the Endangered Species Act, which set the stage for these the least of which is the Endangered Species Act, which set the stage for these Agreements in 2001 when legally-driven water shut-offs caused massive losses in the farming and iiTigated communities, and the attendant rewatering in 2002 resulted in devastating fish kills. In short, the federal government unwittingly laid the foundation for the crisis in the Basin decades ago, and continues to control and determine how the various interests are prioritized and protected. While hindsight is of course 20/20 and no one party entirely shoulders the responsibility for restorations of the Basin these continues to have described to the course the party of the Basin these continues to the course the course to the cou tion of the Basin, there continues to be a significant federal presence and control in this Basin that warrants it being asked to lead the way given its historic role and its vast reach.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. Given the strife that has plagued the Basin, and the work it took to reach this compromise, as well as the diversity of the coalition, the best scenario at this point would be for Congress to ratify the Klamath Settlement Agreements and support the coalition. The worst case scenario would be to have the present coalition resort to adversarial positions that would most likely result in long term litigation at the expense of the environment, farmers, local communities, state fisheries, tribal sovereignty, in the hopes that untested legal theories will generate the same or similar good results.

Question 3. What is the s tatus of the California State Water Bond which is in-

tended to fund a large part of dam removal? How would dam removal be funded

without the California water bond?

Answer. The bond is scheduled to be on the November 2014 ballot. It presently includes funds for dam removal. If it does not include funds for dam removal when it actually goes before the voters, or if the bond does not pass, California will examine other potential sources of restoration funding for rivers and streams and water quality generally.

Question 4. Has there been any discussion of further paring down the agreements? Has there been a ny d iscussion of non federal parties, including non profits, states, or local entities, taking on a ny of the actions that are currently envisioned

as federal responsibilities?

The responsibilities in the Agreements were assigned based on the issues plaguing the Basin and the realistic ability for them to be resolved—all parties received benefits which continue to motivate them to commit to the overall bargain and remain one committed Coalition, as opposed to individually interested parties. Unhinging the careful balance struck by the Agreements could threaten the entirety of the deal. It is true that each party could contemplate hypothetical approaches that would serve their unique needs better, and which standing alone would seem less complex, but this is unlikely to result in a practical outcome as successful as that which was achieved through the Agreements. It is difficult to conceive of a piecemeal approach to these Agreements that could achieve the same benefits.

That said, we do recognize that Congress has ultimately authority to approve these Agreements and ensure the most effective use of public dollars. Accordingly,

we remain willing and able to discuss alternative approaches in implementing the Agreements. Since there is a wide-reaching federal obligation in the Basin presently, the concept behind funding the obligations in the KBRA particularly, was simply to leverage the \$532 million infusion of funds already likely to be programmed by Congress for the Basin in the next 15 years, and repurpose those funds to meet real time needs as agreed upon by the diverse Coalition, with as fey. additional federal dollars as possible, and far fewer dollars than would be required in emergency spending if problems become worse or remain unresolved in perpetuity. In fact, if Congress were to fund the basin as it has been, and is likely to be for the next two decades without these Agreements being ratified, the number of federal dollars spent would far exceed the amount of new federal appropriations the parties are seeking, and would only increase over time with no end point in sight. We look forward to analyzing these funding questions more closely and working with Congress to achieve the results envisioned by the Agreements.

Question 5. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KIISA; and 2) available and fea-

sible under existing authorities?

No. In my view there is not another practical solution to legally improving water quality and supply in the Basin in the same timeframe, with the same level of community buy-in, or with such limited public investment Any individual could conceivably imagine an approach that would better serve his or her personal interests at the expense of other users, but in terms of a collective agreement, there is no better approach than this settlement.

Question 6. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. There were no great surprises, as California has already undertaken dam removal in an effort to improve water quality for endangered fish. That said, there were two useful pieces of information which support a positive determination and which suggest proceeding to dam removal is in the interest of the public. First, the sediment that is behind the dams is not toxic. Second, when that sediment is released, if timed per the report's recommendation, major species will be in tributaries and thus will not face the types of impacts they otherwise might. It was also good to find that the creation of nearly 5,000 jobs and a \$700 million interstate economy could result from the implementation of the Agreements. Finally, it was good to see that the actual removal will likely cost less than originally intended, and is in fact as feasible if not more so than keeping the dams in place.

Question 7. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) pos itive or

Änswer. The biological opinions are distinct and not part of the Agreements and the Agreements cannot legally change the federal requirement to issue those opinions for purposes of species protection. They are independent determinations the federal government must provide in order to incidentally take endangered species through operations of the Klamath Project, and are based on the best available science as to what level of flows are required to protect endangered fish. They will continue to be required and apply to the Klamath Project operations with or without the Agreements and the flow recommendations and other management requirements of those opinions will govern how the Agreements are implemented.

RESPONSES OF MICHAEL KOBSEFF TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. Aside from commitments related to the Klamath Irrigation Project, the federal government's primary responsibilities and priorities in the Klamath Basin should be:

I. The honest and practical administration of the Federal Power Act and connected environmental and administrative laws; and

II. The effective and responsible management of federal forest lands to restore forest health and mitigate negative impacts to water supplies.

The KHSA and KBRA have been constructed upon flagrant violations of the Federal Power Act and the Clean Water Act. The parties who have entered into these agreements have contracted around federal law and unilaterally created a 14 year extension of the license for the Klamath Hydroelectric Project with the acquiescence of the Federal Energy Regulatory Commission.

The normal processes under the Federal Power Act and Clean Water Act should resume, and the Klamath Project should be relicensed with the protection, mitigation, and enhancement measures that have already been prescribed by the resource agencies. If PacifiCorp is no longer interested in operating the project, it should be transferred to a new joint powers authority that will operate the project for maximum benefit to fisheries and water quality while maintaining hydroelectric produc-

tion and reasonable rates for power customers.

Management of the three million acres of National Forest System lands in the Klamath River watershed is another ongoing tragedy. Not only has the Northwest Forest Plan precipitated economic collapse and ongoing distress, but the management prescriptions currently being applied to federal forests are detrimental to water supplies, water quality, and fisheries. The substantially overgrown conditions on much of the National Forest lands are continuing the trend of ever larger and more intense wildfires, while increased evapotranspiration reduces quantities of water that were once available in the Klamath River system to support native fisheries. Proactive management of National Forest System lands must resume.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The "best case" scenario would be an acknowledgement that upper basin water supplies are unrelated to the lower four dams on the Klamath River. The focus of the upper basin should be on development of new water storage, compliance with water quality standards, and the completion of the judicial phase of the Oregon

water rights adjudication.

worst case" scenario would be to proceed with implementation of the KBRA and KHSA based solely on the aspirations and self-interest of the proponents and without scientific or financial groundings. There are substantial uncertainties related to the ultimate effects of the KBRA and KHSA on water quality and fisheries and the costs to PacifiCorp ratepayers and state and federal taxpayers. If the massive dam removal experiment is not successful, additional mitigation burdens will fall on the landowners and water users on the major Klamath River tributaries, particularly on the Shasta River and Scott River in Siskiyou County.

Question 3. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. The removal of the PacifiCorp dams is detrimental to water supplies in the middle and lower reaches of the Klamath River and does nothing to benefit water supplies in the Upper Basin. In the current dry water year, PacifiCorp has offered to reoperate its dams to provide additional fish flows at critical times. This operational flexibility and source of water will be lost with dam removal.

In the 1970s and 1980s, small dams were employed in parts of the upper watersheds to retain early season runoff and supplement summer water supplies. These dams have fallen into disrepair and are no longer effective. The dams should be re-

turned to their former operating condition.

As noted above, improved management of National Forest System lands will also increase the availability of water for consumptive uses and instream flows

Question 4. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. As outlined in the written testimony submitted by Siskiyou County, there have been numerous and ongoing breaches of scientific and scholarly integrity throughout DOI's process, which has been driven by the self-interest of the proponents of the KBRA and KHSA and the predetermined conclusion by former Secretary Ken Salazar that dam removal is the one and only approach to improving water quality and fisheries on the Klamath River.

Cost-Benefit Analysis-From a financial perspective, the most egregious finding from DOI was the overall cost-benefit analysis, which only determined that dam removal was beneficial by concocting a hypothetical "non-use" valuation through a na-

tionwide public survey. Without this non-use valuation, the cost-benefit analysis for the KHSA and KBRA result is negative.

Threatened Coho—The final EIS/EIR misstates the findings of the expert scientific panel on Coho salmon. The panel pointed out that much of the scientific data necessary for analysis is missing. It stated that initial dam removal activities would kill 100 percent of Coho populations in the Klamath River. Then any population increases would be "small" for at least a decade. After that, increases could be "moderate," but only if the KBRA is "fully and effectively implemented." The panel concluded that there was a "high uncertainty" that this kind of implementation would happen, leading to a "low likelihood" of even moderate population responses by Coho from dam removal.

Steelhead Trout—The expert panel did state that steelhead populations "could" increase due to access to new spawning and rearing habitat. However, they had insufficient data to estimate populations.

Chinook Salmon—The Iron Gate Fish hatchery would be closed eight years after dam removal, but the EISEIR fails to analyze impacts on the downstream and ocean fishery. The expert Chinook salmon panel stated that they expected a possible increase of just 10 percent in the average number of Chinook spawners, but the EIS/EIR mysteriously claims an 81.4 percent increase. The panel also stated that increases in spring Chinook were "even more remote" than for fall Chinook. Based upon the wildly overstated projections, the EIS/EIR outrageously projects increased harvest levels of about 50 percent.

Other Fish—he Resident Fish expert report forecasts an increase in redband trout, which is a major predator to juvenile salmon and steelhead. Because of increased sand/silt in the river bottom, the expert panel report states that Pacific lamprey habitat capacity could increase by 14 percent. The EIS/EIR seizes on this to assume that lamprey production will also increase by 14 percent. The study fails to fully analyze effects of competitive interactions among fish or to analyze impacts

on 16 resident native fish.

on 16 resident native fish.

Sediment—Information in the EIS/EIR indicates that 8,430,000 cubic yards or 3,540,600 tons of sediment could be released in the first year after dam removal. However, sediment deposition is not expected to exceed two feet. In their analysis, the coho/steelhead panel assumed only 200-300,000 tons and the Chinook panel 300-400,000 tons of sediment. The expert panel noted that the impacts of high sediment will last two years. Coho have a three-year life span, so there are rotating "cohorts" or age-similar groups that cycle through every three years. Two of the three cohorts will be decimated by two years of sediment flows

will be decimated by two years of sediment flows.

Water Quantity—The Coho expert panel notes that there will be "potentially lower flows during the fall" caused by dam removal which "may reduce the ability of threatened Coho to migrate through the mainstem in order to reach spawning

areas in tributaries

Water Quality—The Coho expert panel indicated that while dam removal may lower average daily temperatures, the "highest temperatures experienced by fish will increase." (Salmon experience distress when temperatures exceed 20° C.)

The Klamath dams currently provide bioremediation for the high nutrient content of the water as it passes though the reservoirs. The water slows and the river selfcleanses much of the algae produced in the volcanic and phosphorus-rich Upper Basin. The dead cells drop to the bottom, which is why the sediment behind the

dams has such a heavy organic component.

Nutrient loading is currently a substantial limiting factor to anadromous fish in the Klamath River. It stimulates algae growth that can deprive water of oxygen and it provides habitat for the worms that are hosts to fish-killing parasites that have fatally infected a major percentage of the juvenile fish leaving the system. The Coho panel report states that all the models recognize that "total nutrient concentrations in the Klamath River downstream of Iron Gate Dam would increase." It recognizes that there will be "long-term increases" in harmful algae and that this will have a "significant impact," making problems worse. Both the Coho and Chinook panels noted that dam removal could spread fish-borne disease upstream.

The Chinook panel admits that reductions in nutrient loading and water tempera-

tures would be dependent on major upstream actions, such as converting 40 percent of Upper Basin irrigated farms (44,479 acres) to wetlands.

Floods—Currently, the Klamath dams reduce high peak flood flows and delay them for about nine hours. The EIS/EIR seriously understates the increased risk of flood due to dam removal by modeling 100-year events using daily average flows rather than peak flows. It then presumes no substantial increase in flood risk because its projected average flows are comparable to current FEMA peak flows. In actuality, this means that post-dam-removal flood levels would be substantially higher than current flood levels. In addition, sediment deposit may raise the bed of the river as high as two additional feet. The EIS/EIR fails to assess the costs of removing the 30-some residences and structures in the floodplain, and does not assess the costs of the increased risk of inundation to bridges and other structures. Having eliminated the liability of PacifiCorp and the federal and state governments through the KHSA, addressing the impact of these exposures is deferred to the future Dam Removal Entity.

Tributaries—The expert Coho fish panel analysis is predicated upon the fact that in the tributaries the KBRA will accomplish: 13 miles of floodplain rehabilitation; 198 river miles of large woody debris placement; 153 river miles of cattle exclusion; 21,800 acres of acquisitions or conservation easements; improvement of 73 fish passage sites; planting of 346 riparian acres; securing of minimum instream flows for

fish (including purchase of water rights); 1,330 miles of road decommissioning; and treatment of 240 sediment sources. It also presumes the conversion of 40 percent of Upper Basin irrigated farms (44,479 acres) to wetlands. The EIS/EIR fails to ana-

lyze the impacts or costs of these actions.

Real Estate Evaluation—The year 2005 was the first year that property values started to be affected by rumors of dam removal, yet base year valuation for the study was 2008—years after some of the damage had already been done. Structural and site improvements were specifically excluded from the impact analysis and the parcels to be valued were hand-picked through the scope of work. Impacts assumed that the reservoirs had been fully restored in vegetation, which would in actuality take many years. This substantially understated impacts. As borne out by the recent Condit dam removal, homeowners could also be required to deepen their wells. City of Yreka's Water Supply—Engineers for the City of Yreka have determined that the cathodic intake process for the city's water supply will be negatively impacted. Also, plans to relocate supply pipes from below reservoir waters to suspension from a bridge create new security risks and create increased maintenance

County Infrastructure—Dam removal will require tons of heavy waste being transported to disposal sites. The roads and bridges in the area have not been designed to bear such weight. In addition, the EIS/EIR characterizes main roads (such as Copco Road) as paved and in good condition, when 80 percent of the road is in very poor to failed condition. The EIS/EIR admits that at Copco 2 "[t]he existing access roads would require substantial upgrades to handle the hauling of the excavated concrete and provide access for a large, crawler-mounted crane." The EIS/EIR acknowledges that "[c]onstruction equipment could damage existing roads" and that three bridges along the route "could be incapable of supporting and withstanding the weight of heavy deconstruction and hauling vehicles." Yet the EIS/EIR defers further cost analysis of these very substantial and expensive ipacts "until later."

The EIS/EIR indicates that 1,241,500 cubic yards of earth and 126,000 cubic yards

of concrete will be disposed on or near site on lands currently designated open space or conservation. 7,200 tons of metal and 4,500 tons of rebar will be disposed offsite-some of which will go to the Yreka or Klamath Falls landfill. The EIS/EIR is silent

as to the environmental effects or impacts on landfill capacity.

Other Impacts-The EIS/EIR makes no effort to calculate the loss of county tax revenues from facilities removal, property devaluation and farmland conversion, nor does it assess impacts to the integrity of the fundamental tax base to support County services.

There is no analysis of impacts to exposed Shasta Indian cultural resources.

Question 5. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

negative.

Answer. The only aspects of the settlement agreements that are supported by Siskiyou County are the interim measures that are being implemented to improve water quality and Klamath River fisheries. These interim measures are recognized in the 2013 biological opinion and, in conjunction with the conservation measures included in the opinion, provide the basis for the non-jeopardy determination for Lost River and shortnose suckers and Coho salmon. This conclusion by the National Marine Fisheries Service and U.S. Fish and Wildlife Service demonstrates that operation of the Klamath Irrigation Project can be reconciled with the demands of the Endangered Species Act along with the ongoing operation of all existing facilities on the mainstem of the Klamath River.

> BOARD OF SUPERVISORS, County of Humboldt, Eureka, CA, July 11, 2013.

Hon. Ron Wyden,

Chair, Energy and Natural Resources Committee 304 Dirksen Senate Building Washington, DC.

Hon. LISA MURKOWSKI,

Ranking Member, Energy and Natural Resources Committee 304 Dirksen Senate Building Washington, DC.

DEAR CHAIR WYDEN AND RANKING MEMBER MURKOWSKI,

Thank you for the opportunity to provide these clarifying responses to your questions regarding water resources issues in the Klamath Basin.

In broad terms, the two main concerns heard at the hearing were that the cost of the agreements was too high and that there were too many parties not yet on board. These opposing concerns posit a conundrum, as bringing more parties to the table likely requires providing more benefits to those parties, which likely adds to the cost of the agreements. While this is perhaps a valid concern, we do not believe it must be the case, as the cost of bringing other parties to the table must be

weighed against the cost of doing nothing.

The core decision here is whether the federal government should continue an ongoing and endless cycle of unplanned disaster relief and bailouts to maintain an ongoing crisis situation, or whether the government should instead invest in this basin to fix the underlying problems so as to bring sustainability and predictability to the basin. As demonstrated in the attached answers, when the cost of these agreements is balanced against those ongoing costs, it becomes clear that these agreements truly pay for themselves over their 15-year timeline, with less than \$300 million in new federal spending leveraging some \$549 million from non-federal sources.

The County of Humboldt greatly appreciates your keen interest and enthusiasm

for working to resolve these long-standing water resource issues in the Klamath Basin, and we look forward to working with you and the Committee to improve these agreements where possible so as to move forward towards implementation.

Sincerely,

Mark Lovelace 3rd District Supervisor.

Question 1. In your view, what is the responsibility of the federal government in

the Klamath Basin?

Answer. The federal government has many enumerated responsibilities in the Klamath basin, including protecting and controlling the waters of the United States, managing fisheries, wildlife refuges, tribal trust resources and public lands and authority over the basin's hydropower project. These ongoing responsibilities, and their associated ongoing spending of some \$17.4 million per year, exist here in the Klamath Basin regardless of the presence of the Klamath Agreements. If these agreements fail, the federal government is still obligated to these responsibilities and their commensurate spending on into the future.

In addition, the federal government also has a moral responsibility to provide re-

lief for communities struck by natural disasters such as drought or catastrophic fish kills. Since 2001, the federal government has spent at least \$181.4 million on emergency drought relief and disaster assistance in this basin, for an average of over \$17 million per year. Combined with the ongoing spending that is regularly and rouor more than \$500 million over a 15-year period, just to manage an ongoing crisis situation that leaves no one happy, with no stability for either the farmers or the downstream fisheries, and with no end goal in sight.

Effectively, the Klamath Basin is on public assistance, having suffered through decades of conflict, chaos and crisis, with the federal government having to pick up the pieces through ongoing subsidies. Instead, the federal government's responsibility should be to invest wisely to get this basin back to a more stable condition so that it can get off public assistance and move towards self-sufficiency.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. Any of the individual interests in the Klamath Basin might well be able

to project a "best case" scenario that meets their own, individual needs better than the Klamath Agreements. However, it must be assumed that increasing the benefits to any one party would almost certainly come at the expense of other parties.

For the basin as a whole, the best case is an outcome that involves the many,

disparate parties working together to collaboratively resolve these longstanding issues in a manner which creates the broadest-possible agreement among the most parties. There is no value in considering hypothetical "perfect" outcomes which are either not possible or which are so unlikely as to be not worth pursuing. History would thus suggest that the agreements, as they exist, might well be the best-possible outcome that is realistically attainable. All that is needed is for Congress to

The worst case scenario would be to see the various interests abandon years of negotiation to retreat back to their own corners and pursue only their own interests through litigation and conflict, rather than working together as a coalition to pursue the greater interest of the whole basin.

Question 3. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned as federal responsibilities?

Answer. The parties are willing to consider further changes to reduce the cost of these agreements, so long as those changes are consistent with the purposes of the

agreements. These agreements are a result of many years of negotiation between the diverse parties, including input from a number of parties who participated in discussions but who ultimately chose not to sign the final agreements. The parties have already worked to create what they believe are the broadest-possible agreements that provide the greatest benefit to the most parties.

In 2011, the parties worked to find ways to reduce the cost of these agreements, ultimately managing to reduce their cost by 18 percent, down to \$798 million. The parties also agreed to extend the budget for the agreements over a 15 year timeline,

parties also agreed to extend the budget for the agreements over a 15 year limeline, rather than the original 10 years, reducing the amount of annual spending.

As noted in the response to question 1 (above), the pattern of historic spending over the last 10 years or more in the Klamath Basin would indicate that, without these agreements, the federal government should nonetheless expect to spend well over \$500 million dollars in this basin over the next 15 years. The difference between implementing these agreements and doing nothing is thus less than \$300 million. That find in these lagrages up to \$450 million from PagifiCorps ratenavers. lion. That funding, in turn, leverages up to \$450 million from PacifiCorps ratepayers and the State of California for dam removal, along with additional funding from non-federal parties for other KBRA-related activities, for a total non-federal match of some \$549 million over 15 years.

Essentially, the federal contribution for this project has the potential to pay for itself by redirecting existing program funds, by ending the cycle of emergency spending and by leveraging non-federal funding at a rate of nearly 2-to-1 for dam-removal

and KBRA-related activities.

Question 4. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. Many of the parties, whether members of the coalition or those who chose not to participate or to sign the agreements, might individually be able to propose methods that better serve their own individual interests, but it is difficult to imagine other methods of allocating finite water resources that better meet the needs of the entire basin and which do not come with additional cost or at the expense of one or more of the other interests in the basin.

Right now in the upper basin we are witnessing what happens if the allocation of water is left up to "existing authorities". In such scenarios, there will be winners and there will be losers. The only way to resolve these types of water disputes amicably is through negotiation, which is what led to the development of the Klamath Agreements. Those non-signatory parties who are currently facing water shut-offs would best be advised to come to the table and join with these agreements so as to be a part of this basin-wide solution.

Question 5. In your opinion, what were the most surprising findings in DOI's dam

removal studies? What were the most controversial parts?

Answer. Though the Klamath Agreements are built on a mountain of data, the parties recognized the need for additional study before dam removal could go forward, to identify and mitigate potential impacts, to better predict costs and to improve the information base for decision making so as to determine the best way to

Because of the pre-existing body of peer-reviewed science, these studies by the Department of the Interior did not produce any particularly surprising findings. Rather, the studies support and reinforce the assumptions that have gone into these agreements, confirming and validating the approach proposed by the parties.

Additionally, the studies found that the costs of dam removal are quite reason-

able, with the most probable cost identified as \$292 million; a reduction of \$158 million from the \$450 million upper-limit originally projected in the KHSA. These studies confirm that dam removal is in fact less expensive and more cost-effective than relicensing these dams, making dam removal the preferred approach for both PacifiCorp and its ratepayers.

Question 6. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

Answer. The KBRA and KHSA are agreements only between the signatory parties, and as such they did not, and cannot, supersede or otherwise interfere with existing regulatory authorities such as the 2013 biological opinion (BiOp) issued under the Endangered Species Act. Should Congress authorize and implement these agreements through enabling legislation, the KBRA would still rely upon future biological opinions to guide operations. In short, the KBRA/KHSA are responsive to biological opinions; not the other way around.

The only indirect affect the agreements had on the BiOp was through an improved working relationship between the various interests, agencies and contractors, again validating the effectiveness of the collaborative, negotiated approach of the Klamath Coalition.

RESPONSES OF TOM MALLAMS TO QUESTIONS FROM SENATOR MURKOWSKI

 $\it Question~1.$ In your view, what is the responsibility of the federal government in the Klamath Basin

Answer. In a "normal" situation, I would say the Federal Government would help in areas where State and local Government is not able to provide necessary functions, (with consent of local governing body). Currently, I feel the Federal Government has completely over stepped it's authority with unreasonable, unproven and heavy handed regulations, literally crippling our local and regional economies. With no economic "balance" being part of the equation, within State and Federal regulations, our ability to survive as individual communities and as a State is becoming more and more doubtful. The wise, beneficial use of Oregon's natural resources is essential to our very survival. The devastation caused by loss of timber harvests along with the current attack on irrigated agriculture will ultimately destroy any chance of reversing our downward economic plight. Another "case in point" is the Klamath Reclamation Project. The approximate 200,000 acres of irrigated farm ground was developed with the help of the Federal Government. The Federal Government. ernment was NOT intended to have control forever. The entire Project operation was to be turned over to the local irrigation districts with zero debt. This has not happened. In fact, the Bureau of Reclamation, (BOR), continues to add more unproven debt upon the local irrigation districts, thus keeping the Project under Federal control.

 $\it Question~2.$ In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The "best case" scenario is for the local parties actually sitting down and resolving the water allocation issues outside of the adjudication, KBRA and dam removal. The dam removal and current KBRA aspect will NEVER have the support of the citizens and Congress. Any settlement by the local parties will be destined to fail if the current KBRA and dam removal are attached in any way.

A possible starting point or model could be the 2005 settlement concept reached with the Klamath Tribe and the upper basin irrigators. This was signed in Congressman Greg Walden's office in Washington D.C. by the duly elected Tribal Chairman and representatives from the upper basin irrigators. The actual "KBRA Framework", 2007 draft is another possible starting point. This was signed by all the KBRA stakeholders in January of 2007.

The "best case" scenario would also include the BOR turning control of the Klamath Reclamation Project over to the local irrigation districts as was intended from the beginning. The actual structure to do this already exists. The "worst case" scenario is doing nothing.

Question 3. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and feasible under existing authorities?

Answer. Only Mother Nature can create additional water and or snowpack. Continued conservation practices can help, but realize that literally millions of dollars have already been spent on conservation practices, many being done at landowner sacrifice and expense. Also, in the upper basin, over 100,000 irrigated acres have been taken out of agricultural production in approximately the last 25 years. Some of this land has been put into wetlands which historically consume more than four times as much water, per acre, as irrigated agriculture ground.

The permanent solution should include deep cold off-stream storage. There are about a dozen possible sites within the Klamath Basin that would accomplish this. Adding up all the millions of dollars spent on the KBRA, dam removal and other numerous studies, the obvious solution could have been in place years ago. (Storage in shallow wetlands is not a viable option) The KHSA and KBRA literally eliminate any future possibility of meaningful off-stream storage, (section 20.5).

Selective dredging of Upper Klamath Lake is another option. This has been done in other areas with remarkable success. Modern dredging equipment and techniques can clean and cool the water by deepening the lake bottom while also increasing the storage capacity. Attached to my testimony on June 20th, 2013, is one study showing how the dredging option can create a self-funding project.

Question 4. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. The DOI's dam removal study was nothing more than a predetermined outcome, with bought and paid for "best available science", attempting to justify it. I and Siskiyou County could go into a lot more detail showing this to be the case. A couple of short items:

a. Depending on only the positive aspects of numerous other studies and totally ignoring the negatives, (BOR whistle blower Chief Scientific Integrity Officer Paul Houser and eight whistle blower BOR fish biologists in the Klamath office)

b. Using the "Stillwater Science" report which was funded by American Riv-

ers, and was proven to be grossly false.

c. Hiring River Design to do sediment modeling on the movement downstream of 22 million cubic yards of sediment behind the Klamath Dams, after their failed modeling of sediment movement with removal of two dams on the Rogue River in Southern Oregon already completed.

Question 5. What is the likely outcome of the recent call on water made by the federal government and the tribes? For instance, how would it affect project irrigation allocations for the remainder of the water year? How might it affect off-project irrigators and ranchers?

Answer. The Project allocation of water will very likely be at risk before this water season is over. The so called agreements do not provide any meaningful protection for irrigators, citizens in general and the wildlife that are even historically

given preference over human needs.

One of the critical impact differences between Project and off-project irrigators is that when water is denied within the Federal Project, there are mechanisms in place to supply economic offsets for that loss. In off-project, there no such mechanisms

nisms of any type whatsoever.

In the upper basin (off-project), the recent calls, (and continuing calls), will have a massive, permanent negative impact on the economic viability of the entire Klamath Basin. The calls this first year will in many cases, be a permanent shut-off of water. The amount of water demanded to be left in-stream will be literally unattainable in many years. An agricultural business cannot survive with its necessary life blood of water only being available periodically. The economic impact to Klamath County has been estimated at approximately \$500 million.

The eventual economic impact will be additionally multiplied by the fact that Oregon Water Resources Department has admitted they will also begin regulating.

The eventual economic impact will be additionally multiplied by the fact that Oregon Water Resources Department has admitted they will also begin regulating, (shutting off), wells in the Klamath Basin. This is being justified by non-proven "modeling" of our entire basin claiming all wells are connected to surface water, thus subject to calls just as surface water is. This is tied to the "Scenic Water Way" des-

ignation.

Question 6. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

negative.

Änswer. Interestingly, the first 25 pages or so of the new joint Biological Opinion actually stressed the lack of sufficient water storage capacity in the Klamath Basin. The logical conclusion would be constructing deep, cold water storage projects within the Klamath Basin to increase storage capacity. This is in direct conflict with the KBRA, which requires all excess water be designated as environmental water, which has a non-consumptive use requirement.

In closing, water in the State of Oregon has always been a State Rights issue. Water has always been a private property right. Now, the control of the water within the State of Oregon has been handed over to the Federal Government, thru the

BIA and DOI.

RESPONSES OF JIM McCarthy to Questions From Senator Murkowski

 $\it Question~1.$ In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The topline federal responsibilities in the Klamath Basin related to water resource issues are to meet tribal trust responsibilities, recover species listed under the federal Endangered Species Act, support and protect commercial and recreational fisheries, secure adequate water supplies for the region's national wildlife refuges, and foster a productive and sustainable agricultural economy. All of these responsibilities have not been met, and cannot be achieved, without bringing the agricultural demand for water back into balance with actual basin supplies. For this reason, it is essential for the federal government to make a considerable investment in a basin-wide, voluntary water demand reduction program to make a fair and eq-

uitable transition to sustainable levels of agriculture. Completion of the Klamath Basin water rights adjudication in Oregon provides valuable new opportunities for this work.

 $\it Question~2.$ In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario for the basin would involve prompt removal of the lower four mainstem Klamath dams, combined with a federally-led effort described on pages 2 and 3 in our submitted testimony, to achieve a vibrant and viable Klamath Basin for all communities involved. The worst case scenario would involve continuation of the current status quo, which has resulted in significant degradation of the region's national wildlife refuges, water quality, and fish and wildlife populations, uncertainty regarding the long-term prospects for fisheries recovery, an ongoing failure to meet tribal trust responsibility, ongoing water supply instability for the agricultural community, and significant social and economic costs resulting from the region's chronic and increasing competition for water. A poor scenario would also result from adoption of a water budget for the basin like that included in the Klamath Basin Restoration Agreement. Simply put, the amounts of water set aside for irrigation in the Agreement make it impossible to meet other legitimate water reads in the heart. This will propose the termination of the second needs in the basin. This will perpetuate the cycle we see now where the basic water needs of legitimate interests are not met in many water year types and the federal government continues to make substantial annual payments to irrigators most years

for temporary (one-season) demand reduction.

Question 3. Do you agree or disagree with the cost estimates in DOI's dam removal study (\$290 million)? Why or why not? In your opinion, what is he likelihood of cost overruns? Who should bear the responsibility for cost overruns during dam

of cost overruns? Who should bear the responsibility for cost overruns during dam removal should they occur? (e.g., federal government, states, PacifiCorp)

Answer. DOI's estimate is significantly higher than the four previous estimates complied by FERC in its 2007 Final Environmental Impact Statement, which ranged from \$79.9 million to \$102.4 million in 2006 dollars (see table 4-4, page 4-6). Given the range of available estimates, there may be a relatively low risk of significant overruns above \$290 million. We believe that all costs of dam removal should be borne by PacifiCorp and its ratepayers, as this is in accordance with the law as well as basic fairness ≥- PacifiCorp and all its customers have benefited from the power generated by these dams. The Oregon and California PUCs have already approved ratepayer surcharges for dam removal, and PacifiCorp has thus far col-

lected some \$54 million of a total of \$200 million intended to pay for this purpose.

Question 4. In your opinion, who is most likely to be the Dam Removal Entity?

Answer. The U.S. Bureau of Reclamation would appear to be the most likely dam removal entity under the current Klamath agreements, although this is an entirely

speculative assumption.

Question 5. In your view, what might have been the outcome of FERC relicensing proceedings (i.e., absent the KHSA)? Similarly, where would things stand at this point in time, and would it be preferable to where the process currently stands

under the KHSA?

Answer. Because it is more economically sound to remove PacifiCorp's four lower mainstem Klamath dams than to try to relicense them, there is a high degree of likelihood the FERC process would end in removal for economic reasons. It is difficult to speculate where the FERC process would stand at this point, but it may be instructive to look to PacifiCorp's recent removal of Condit Dam on the White Salmon River in Washington as an example. The Klamath dams face similar economic viability problems as Condit faced. Condit's removal was also the largest dam removal undertaken in the United States at the time, just as the Klamath dams are likely to be the largest dam removal undertaken in the country if it proceeds within the next several years. At Condit, PacifiCorp filed for a new license with FERC in December 1991, and FERC issued an EIS in October 1996. By October 1999, PacifiCorp had applied to FERC to remove the dams in late 2006. After some delays, actual dam removal occurred in October 2011. For the Klamath dams, PacifiCorp filed for a new license in February 2004, and FERC issued an EIS in November 2007. If the Klamath dams had continued through the FERC process intended by the Klamath dams is accommentable that stead of being suspended by the Klamath agreements, it seems probable that PacifiCorp could have applied to FERC for removal as early as 2010, and would now be proceeding towards a removal sometime between 2017 and 2021.

 $\hat{Q}uestion$ $\vec{6}$. In your opinion, what were the most surprising findings in DOI's dam

removal studies? What were the most controversial parts?

Answer. In our view, the most surprising and controversial part of the DOI studies in the April 2013 EIS was the failure to analyze a scenario where the Klamath dams are removed without implementation of the Klamath settlement agreements. Not only was this a clear violation of the NEPA requirement to analyze all reasonable alternatives, but it denied decision makers and the public an important tool for evaluating the extraordinarily costly Klamath settlement agreements. We believe that this omitted alternative analysis would have shown that dam removal without KBRA/KHSA would provide the greatest benefits at the lowest cost.

RESPONSES OF ROGER NICHOLSON TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in

the Klamath Basin?

Answer. The federal government should assist in finding an equitable solution to power and water issues in the Klamath Basin, as the federal government played a role through federal agencies, a Federal Project, and Treaty rights in creating the issues. The federal government will ultimately need to agree with any proposed set-

tlements and possible assist in federal funding of settlement components.

*Question 2. In your opinion, what is the "best case" scenario for the basin in the

future? What is the "worst case" scenario?

Answer. The best case scenario would be for the Klamath Basin to reunite as one community, with each faction remaining economically whole and able to continue with their way of life. This pertains to the Upper Basin Irrigators, Project waterusers and the Klamath Tribes.

In contrast, the worst case scenario would be a fractured community that does not have the economic stability and certainty to make long term lifestyle and management decisions.

Question 3. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. Other available and feasible methods not covered in the KBRA and KHSA would be to distribute Upper Basin water more equitably among the parties. Each entity should give a little, including the Klamath Project, Klamath Tribes and Upper Basin irrigators. By one group carrying the burden of the entire water shortage, the KBRA does not provide for an equitable solution.

Question 4. What is the likely outcome of the recent call on water made by the

federal government and the Tribes? For instance, how would it affect project irrigation allocations for the remainder of the water year? How might it affect off project

irrigators and ranchers?

Answer. Off Project irrigators and ranchers are affected by no longer have viable pastures and hay ground. Once not irrigated for a season or more, the hay ground and pastures will potentially need to be reseeded. The cattle will need to be sold early and without a strong local market. Both of these things will reduce the viabilearly and without a strong local market. Both of these things will reduce the viability of the cattle industry in the Upper Klamath Basin, as the producers will earn reduced revenues and increased expenses. Additionally, the cow-calf producers will be selling some or all of their breeding stock which many have worked years to breed and cultivate quality genetics.

Due to the decrease in irrigation, the property values will diminish and therefore Klamath County will receive less tax revenue. The decrease in property tax revenue

and gross income will have a devastating impact on the local economy. If the call continues over multiple seasons, then the local community will dwindle and the infrastructure for the cattle industry (i.e. veterinary clinics, equipment dealerships, and feed stores) will be permanently lost.

Question 5. If the order is upheld and the state shuts off deliveries, what are your preliminary expectations for impact on crops (i.e., number of acres not irrigated and associated revenue loss)? For water deliveries (i.e., number of acre-feet not available)?

Answer. 96,000-100,000 acres of pasture and hay ground are estimated to be lost the first year. The associated property value lost is estimated by the Klamath County Assessor to be \$199-258 million. The estimated revenue lost from this ground is estimated by the Klamath County Assessor to be \$398-516 million annually

Question 6. Similarly, has or might the recent call on basin water supplies affect your position on the agreements? Please explain why or why not.

Answer. No, because our position is, as it has always been, to support an equitable settlement for the Klamath Basin.

Question 7. Please summarize the proposed ESA listing and recent decision regarding the Upper Klamath Chinook salmon. What was the reasoning for this decision NMFS? Do you agree or disagree?

Answer. Any listing for a threatened or endangered fish within the Klamath River system further complicates the water allocation. And therefore, must be considered

when looking at making an equitable settlement including water allocation for the Upper Klamath Basin.

Question 8. Please explain the primary modifications and new actions contemplated in the 2013 biological opinion.

Answer. No response.

Question 9. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

Answer. It is too early to tell how the Project operations associated with the biological opinion will function and whether this is a positive or negative impact on the overall water budget for the Upper Basin. There is definitely concern regarding the limited license water which is being provided to downstream obligations during the irrigation season. As this has added an additional draw on Upper Basin water, resulting in less available Project and Tribal water and an increased call on Upper Basin irrigators.

RESPONSES OF RICHARD ROOS-COLLINS TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The United States has primary responsibilities for the sustainable man-

agement of the Klamath Basin's water and other natural resources.

The United States owns more than half of the basin lands. The Interior Department administers the Klamath Irrigation Project, six National Wildlife Refuges, and the Klamath National Wild and Scenic River. The Agriculture Department administers six National Forests. The United States has responsibilities to manage these reservations to achieve the public-interest purposes established in organic statutes. The United States also has trust responsibilities to protect the culture, welfare, and economy of the six federally recognized tribes in the basin. Further, the United States has responsibilities to regulate natural resources under the Clean Water Act, Endangered Species Act, and other federal statutes. These responsibilities extend beyond the boundaries of the federal reservations to include non-federal activities that affect these resources.

The Klamath Basin Restoration Agreement (KBRA) and Klamath Basin Hydropower Agreement (KHSA) were drafted with the full participation of federal negotiators in order to fulfill all of these responsibilities. We also acknowledge that the States of Oregon and California have other primary responsibilities for sustainable

management of these water resources.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario is that these water resources will be managed systematically under voluntary agreements to assure water supply reliability. The KBRA calls for two implementing agreements to be reached: one to settle tribal trust claims against the Klamath Irrigation Project; and the other, the Off-Project Water Settlement (OPWAS), for ranchers in the Upper Klamath Basin. Water users will agree to flow diversion or release schedules; seniors will forebear to make otherwise permissible calls against juniors under the Oregon Water Rights Adjudication and other water-rights law; and regulators will confirm that these flow schedules comply with the Endangered Species Act and other regulatory laws. This water supply reliability will allow farming communities, tribes and other fishermen, and other tribute in the confirmation of ers to make capital investments and other decisions that enhance the economy and welfare dependent on these resources. In addition, the KBRA provides for investigation of the feasibility of additional wetlands storage of about 100,000 acre-feet, potentially enhancing inter-year water availability.

The worst case scenario is that these water resources will continue to be managed through a perpetual cycle of administrative rulings and other litigation, impairing the welfare of basin communities. Per practice throughout western states, the Oregon Adjudication established a strict order of priority, authorizing senior water rights to cut off junior altogether in 2013 or similar years. That has significantly reduced water supply reliability for junior users in the Upper Klamath Basin, impairing investment or even the feasibility of continued operations. Absent authorization for the Klamath Agreements, it is possible that similar litigation may occur in the lower basin in the future, under authority of California law. Further, regulatory laws are not effectively integrated with the water rights system, resulting in an amorphous cloud on all titles. The Oregon Adjudication and counterpart procedures in California do not provide a clear or systematic answer to the question: which water users have what responsibility to release flow for attainment of water quality standards, conservation of endangered fish and wildlife species, or compliance with

other public trust obligations?

Question 3. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned

as federal responsibilities?

Answer. Parties to the Klamath Agreements have begun to re-examine our budget proposal for the KBRA, in response to Senator Wyden's June 20 statement that a significant reduction may be necessary given present budget rules and realities. The non-federal parties had undertaken a similar effort in 2011. At that time, we reconsidered the budget proposal in the 2010 agreements, reducing that by 18 percent. We also agreed to extend the budget term from 10 to 15 years. And we intended our budget proposal to be covered, in part, by redirecting existing federal funding in the Klamath Basin.

The parties have never presumed to offer our budget proposal on a take-it-or-leave-it basis. Our bottom line is that the authorized budget must be sufficient for timely implementation of the measures necessary to assure reliable water supply

and the sustainability of the basin communities.

Let me give one example which illustrates our thinking about your question. The Let me give one example which illustrates our thinking about your question. The KBRA includes an Off-Project Water Program designed to lease or purchase water rights from willing ranchers in the Upper Klamath Basin. This has the goal of 30,000 acre-feet/year of new inflow into Upper Klamath Lake to conserve listed species there. At the June 20 hearing, Senator Wyden emphasized that this measure is vitally important to the welfare of the Upper Klamath Basin. The line items for this measure in the 2011 budget proposal totaled \$46 million over fifteen years. That was based on our best estimate of market value of the associated water rights. Given two years of additional experience, the Conservation and Fishing Groups are prepared to reconsider what funding is necessary for implementation on the scale prepared to reconsider what funding is necessary for implementation on the scale and schedule necessary for effectiveness. This applies to each measure in the KBRA. You also ask about non-federal contributions. Most of the measures in the KBRA will be performed cooperatively by federal and non-federal parties. For example, the

Fisheries Program will be a joint effort of the California and Oregon Departments of Fish and Wildlife, tribes, and the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (FWS). Other measures will be performed entirely by non-governmental organizations. Further, the KBRA requires efforts to secure by non-governmental organizations. Further, the KDKA requires enous to secure non-federal funding to assist with the implementation of all programs. The Conservation and Fishing Groups are actively seeking such funding, both public and private. Turning to the KHSA, PacifiCorp's ratepayers and the State of California will fund dam removal at a total cost of \$450 million. Altogether, the non-federal funding for the Klamath Agreements is estimated to total \$549 million over 15

Question 4. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. We are not aware of any measures that meet the question's goal and criteria. Our answer is driven by the first criteria. The Water Programs under the KBRA rely on local districts, farmers, and ranchers to select those measures which improve irrigation efficiencies or otherwise reduce diversions by specified amounts necessary for conservation of fish in Upper Klamath Lake and downstream. These programs will support assurances that the resulting flows will meet tribal trust and regulatory obligations for fish conservation over time. In sum, the KBRA already provides for flexibility in selection and implementation of cost-effective measures

which will achieve water supply reliability.

*Question 5. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

Answer. The most surprising finding is that dam removal is likely to cost \$292 million. In 2010 the KHSA had budgeted up to \$450 million. That was a conservative estimate reflecting (a) the unprecedented scale and complexity of removing facilities in the remote river canyon and (b) preliminary analysis of the risks of unintended adverse impacts, such as discharge of accumulated sediments. Through its extensive engineering and other studies, the Interior Department has now given us a higher confidence that the costs and risks are well within the non-federal budget specified by the KHSA. The studies have also confirmed that removal of these power-only dams will not impact water supply or flood control.

The Interior Department's studies did not resolve, or worsen, the controversy in Siskiyou and Klamath Counties on the question whether dam removal should occur. That controversy began well before the KHSA was signed in 2010 and continues to this day. We continue to be perplexed by the philosophical view, held by some oppo-

nents, that PacifiCorp should not be allowed to pick among lawful options how to manage its own property, and specifically should not be allowed to proceed with removal of power-only dams even after the Oregon and California Public Utilities Commissions expressly concluded that the KHSA is better for ratepayers than relicensing. The KHSA commits to further development of measures to mitigate any adverse impacts on the water supply pipeline for Yreka, other public roads and facilities, and property tax revenues. We support measures to address any loss in property values for Copco Reservoir homeowners. We are hopeful that the Task Force convened by Senators Wyden and Merkley, Representative Walden, and Governor Kitzhaber will permit this discussion to advance to closure.

Question 6. Is there a point in the future at which you would no longer support this process going forward if Congress has yet to act?

Answer. The KHSA is designed to result in dam removal, and the KBRA is designed to result in implementation of the Water Resources and other programs, by 2020. That target date is deliberate and reflects our best judgment of a tipping point—when the Klamath Basin must either turn towards sustainability or will be committed to systemic abortons and likingting for the formal transfer of the fo point—When the Klamath Bashi must either turn towards sustainability of will be committed to systemic shortage and litigation for the foreseeable future. We acknowledge that, at some point, 2020 will not be possible to meet if Congress has not authorized implementation of the Klamath Agreements. If we reach that point, we will attempt to achieve the benefits of the agreements through continued collaboration. We do not foresee a point when we would voluntarily abandon these agreements and return to the past cycle of litigation before regulatory agencies and courts, which simply do not have the authorities to achieve a comprehensive solu-

Question 7. Please summarize the proposed ESA listing and recent decision re-

Question 7. Please summarize the proposed ESA listing and recent decision regarding the Upper Klamath Chinook salmon. What was the reasoning for this decision by NMFS? Do you agree or disagree?

Answer. In January 2011, Oregon Wild and other groups who oppose the KBRA petitioned NMFS to list the fall-run and spring-run of Upper Klamath-Trinity River chinook under the Endangered Species Act. In April 2012, NMFS denied the petition. It found that the fall-run chinook population, while greatly reduced from historical purphers in groups the strength and part tables at the West Coast. It found tion. It found that the fall-run chinook population, while greatly reduced from historical numbers, is among the strongest and most stable on the West Coast. It found that the spring-run chinook, which was once the predominant run above PacifiCorp's dams, is no longer sufficiently distinct from fall-run to be classed as a separate sub-species. Conservation and Fishing Groups believe that both decisions are based on sound science and may not be the final word given further genetic analysis. More generally, we note that NMFS took into account the anticipated benefits of implementing the Klamath Agreements. We agree with that reasoning. Full implementation will restore migration, and spawning and rearing habitat for fall-run and springerup chinook in more than 420 stream-miles of river and stream in run and spring-run chinook, in more than 420 stream-miles of river and stream in the Upper Basin. That will contribute materially to recovery of these fish.

Question 8. Please explain the primary modifications and new actions contemplated in the 2013 biological opinion.

Answer. The 2013 Biological Opinion for the Klamath Irrigation Project covers both suckers and coho salmon listed under the Endangered Species Act. It replaces separate opinions for each species previously issued by FWS and NMFS, respectively. tively. The new opinion establishes consistent water-year classifications, unified methods to predict water availability early in each water year, and a collaborative process to manage flows on a real-time basis to meet fish and irrigation needs, including response to water shortages and emergencies. We note, however, that this new Biological Opinion cannot achieve many of the KBRA's benefits, including correction of the zero-sum competition between water rights or adequate flows for the National Wildlife Refuges.

Question 9. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

Answer. The 2013 Biological Opinion was issued under the ordinary authority of the Endangered Species Act to cover the U.S. Bureau of Reclamation's continued operation of the Klamath Irrigation Project. It was not directly affected by the KBRA, which is not yet authorized. Further, once authorized, the KBRA will provide for long-term Habitat Conservation Plans for contractors and upper Basin ranchers, while continuing to rely on future Biological Opinions for operation of the federal project. That said, the Klamath Agreements indirectly affected the 2013 Biological Opinion in several positive ways. The close working relationships developed in successful negotiations permitted NMFS, FWS, and the contractors to agree on innovative approaches for short-term project operation, and the scientific record developed by the Interior Department in its dam removal studies is a key scientific basis for those approaches.

RESPONSES OF DEAN S. BROCKBANK TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in

the Klamath Basin?

Answer. The federal government has a prominent role in the Klamath Basin through its responsibility in overseeing federal interests and applying federal laws that are of paramount importance in affecting the resource-dependent economy of the basin. These responsibilities have played a prominent role in the area's resource allocation conflicts. The federal responsibility starts with its control over the waters of the United States, including: management and oversight of water quality; management of hydroelectric power; management of fisheries and listed species; management of six wildlife refuges and thousands of acres of federal and public management of six wildlife refuges and thousands of acres of federal and public lands; management of the trust resources for six federally recognized tribes; and, management and control of a U.S. Bureau of Reclamation project. Going forward operation ofReclamation's Klamath Project, coordination with PacifiCorp's federally-licensed hydroelectric project, implementation of the Endangered Species Act, and management of fisheries and federal lands are all central to the issues and conflicts in the basin. The Klamath Agreements represent a consequence of the second part of the sec ity of basin interests that are traditionally opposed to one another. Only the federal government has the span of control necessary to implement the agreements fully and fairly to help solve the region's problems.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario involves parties with divergent interests setting aside decades of litigation and animosity and deciding to compromise and reach set-tlement on issues that take into account and provide for a range of competing stakeholder interests. Congress can accomplish this objective by approving a long-term Klamath solution.

The worst case scenario involves an abandonment of the desire to compromise and reach accord on complex issues and a return to reliance on litigation and division, and an insistence on narrow interests at the expense of broader solutions. This outcome will result if Congress fails to act.

Question 3. Do you agree or disagree with the cost estimates in DOI's dam removal study (\$290 million)? Why or why not? In your opinion, what is the likelihood of cost overruns? Who should bear the responsibility for cost overruns during dam

removal should they occur?

Answer. The company has not seriously analyzed removing its Klamath hydroelectric dams on its own so it has not approached the level of analysis conducted by the federal agencies. From our view, the estimate seems reasonable but we would consider it just that, a reasonable estimate. It is not possible to know for sure at this point what full removal of the four hydroelectric dams on the Klamath woul d entail or cost as the conditions of permitting and other regulatory requirements are not yet known. The agreement is designed to provide for up to \$450 million for dam removal costs from non-federal sources. The company's view, which is consistent with the terms of the KHSA, is that the agreement should expire and not move forward without additional direction from Congress, if it becomes clear the cost is likely to exceed the \$450 million cost cap set to be provided by PacifiCorp's customers and the State of California.

Question 4. In your opinion, who is most likely to be the Dam Removal Entity? Answer. The selection of the Dam Removal Entity will be up to the Secretary of the Interior. In our view, the federal government is among the relatively few entities capable of such a task or with the experience and span of control necessary to appoint and supervise a non-federal Dam Removal Entity.

Question 5. In your view, what might have been the outcome of FERC relicensing proceedings (i.e., absent the KHSA)? Similarly, where would things stand at this point in time, and would it be preferable to where the process currently stands under the KHSA?

Answer. It is difficult to predict the outcome of the FERC relicensing proceeding absent the KHSA. In fact, it is that uncertainty for PacifiCorp and the other Settlement Parties that led to the KHSA. While FERC had completed its Environmental Impact Statement and seemed prepared to issue a new license to PacifiCorp, neither the State of Oregon nor the State of California has issued water quality certifications under section 401 of the Clean Water Act, which they must do for FERC to act. Without the KHSA, PacifiCorp at this time would likely be embroiled in contentious proceedings before the California State Water ResourcesControl Board and the Oregon Department of Environmental Quality related to the 401 certification process. Litigation relating to these proceedings could continue potentially for a couple of decades. FERC will not issue a new license until the 401 certifications are

issued, so PacifiCorp would be operating under FERC annual licenses, as it is now. The principal difference is that PacifiCorp, in collaboration with other settlement parties, is currently focusing on implementing a broadly supported settlement that includes an immediate and extensi ve program of interim environmental measures that are now benefiting the natural resources of the Klamath basin. Absent the KHSA, PacifiCorp would have no obligation to implement these interim environmental measures under the FERC annual license alone. Under the KHSA, PacifiCorp and the other settlement parties benefit by not having to spend resources on litigation, and the natural resources of the Klamath basin gain as a result of environmental improvements being put in place now.

Question 6. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial pails?

Answer. Among the most surprising findings was that the studies showed that the most probable cost of dam removal was \$292 million-\$158 million less than the \$450 million cost cap contained in the KHSA. Also surprising was the willingness-to-pay estimates developed from the nonuse valuation studies used in the economic analysis. The discounted present value estimates from the Klamath River Basin Restoration Nonuse Value Survey concluded that the public was willing to pay \$84 billion to see the Klamath Basin restored.

One controversial part of the studies was that the Department of the Interior mailed over 10,000 surveys and more than \$20,000 in cash to households across the United States to determine a "willingness to pay" for the benefits associated with

a "comprehensive restoration program for the Klamath River Basin."

RESPONSES OF MICHAEL L. CONNOR TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the Federal Government in the Klamath Basin?

Answer. The Federal government has multiple and diverse responsibilities in the Klamath Basin. The Federal government has responsibility to protect tribal trust resources in the Basin, including, specifically, tribal fisheries. The Federal agencies also manage water, land, fisheries, wildlife, and natural resources associated with Federal interests. Agencies involved in the Klamath Basin include Reclamation, the Bureau of Land Management, Forest Service, Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and National Park Service. The Federal government has many areas of responsibility in the Klamath Basin in relation to enforcing laws enacted by Congress, such as the Clean Water Act, Endangered Species Act, National Wild and Scenic Rivers Act, National Environmental Policy Act and the Kuchel Act. The Federal government also provides services to local governments and the public through the operation of programs to help farmers, such as by the Natural Resources Conservation Service (NRCS), programs to gather scientific information and data to understand and better manage natural resources, such as by the U.S. Geological Survey. Lastly, the Federal Energy Regulatory Commission has a licensing responsibility to ensure responsible development and operation of privately-owned hydropower facilities in the Basin.

Question 2. In your opinion, what is the "best case" scenario for the basin in the future? What is the "worst case" scenario?

Answer. The best case scenario is implementation of a long-term, durable, sustainable solution that is driven through collaboration by those who are most directly affected at the local level. This is the best and perhaps only opportunity to avoid the year-to-year crises that are endemic to this Basin. Under such an approach, there is a mutual commitment to a shared resource, the economy is strengthened, jobs are created, and those who are most directly affected have a say in how the resource is managed. The Klamath Hydropower Settlement Agreement (KHSA) and Klamath Basin Restoration Agreement (KBRA) were crafted to achieve this best case scenario by addressing ongoing impacts and risks to the Basin's resources while strengthening communities that rely on these resources by charting a path of collaboration and cooperation. If both agreements are implemented, the local communities and entities in the Basin that rely directly on Klamath River water would benefit considerably over the status quo that constantly threaten the livelihood of farmers, fishermen and Tribes. These agreements would benefit these communities by creating a better approach to balancing the available water in the Klamath Basin. This means more certainty for irrigation water and affordable power rates for farmers, as well as improved stream flows, habitat, and water quality for salmon and trout fisheries beneficial to tribal, commercial, and recreational communities. This means alleviating water quality problems within and downstream of the Hydroelectric Reach (e.g. algal bloom toxins) that affect fisheries and threaten human

health. And it means more certainty of water for our wildlife refuges, which are a critical link along the Pacific Flyway. Badly needed restoration work would be completed to improve water quality and fish habitat; voluntary water reduction programs would make more water available to salmon and other fish species. In addition, the costs associated with KHSA dam removal and implementation of the KBRA is capped at a fixed amount so electricity ratepayers know future costs in advance. As stated by the Public Utilities Commissions of both Oregon and California, without these agreements, the costs of relicensing could be much higher for PacifiCorp's ratepayers in Oregon and California.

The worst case scenario is the continuation of the current management by water crises in the Basin. The Klamath Basin has endured conflicts among several communities, rampant and costly litigation, depressed salmon runs, fish kills, and the potential for several fish species to go extinct. In the Upper Klamath Basin, the Klamath Tribes have had no salmon fishery for nearly 100 years; and they have not had the culturally important sucker fishery for over 25 years. Many families-fishing and farming-could be one dry year away from losing everything they have worked for. Having to endure future drought years without a plan on how to manage these crises could lead to even greater divisions within the Basin. The Department's analysis shows that climate change in the form of warmer water temperature and earlier runoff could exacerbate a bad situation in the Klamath Basin with negative impacts to tribes, fisheries, agriculture, and wildlife refuges.

Question 3. What is your planned course of action if there is no Congressional action on legislation by December 2014, the new termination deadline? If there is no

congressional action, are there any new actions under existing authorities that could

be carried out?

Answer. The parties that signed the KBRA would have to "meet and confer" about the appropriate next steps. In such an instance, we would be hopeful that there will continue to be broad support for a solution to these ongoing problems in the Klamath Basin. We are currently using our existing authorities to address the myriad needs for water in the Klamath Basin to the maximum extent possible but these authorities alone are insufficient to support the type of solution needed to move beyond the on-going crises created by an over-allocated watershed.

Question 4. Has there been any discussion of further paring down the agree-

ments? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned

Answer. Following the June 20 hearing, members of the newly created Klamath River Basin task force-consisting of representatives from Oregon and California state agencies, Indian tribes, farming and ranching communities, conservation groups, salmon fishing community and electric power producers-are meeting to discuss efforts to pare down the costs of the agreements. Previously, the Department led an effort in 2010 to reduce KBRA costs while also ensuring the same level of benefits to the Klamath Basin and its communities. Several efficiencies were found which yielded a nearly 20 percent cost reduction from the original KBRA budget. The funding scheduled was also distributed across a 15-year program rather than a 10-year period, reducing costs on an annual basis.

Under the current agreements, the non-federal funding for implementing parts of the KBRA and the KHSA have also been identified. California and Oregon will fund the KBRA counties program, the state regulatory activities, and certain of the fisheries activities that would not be funded by Federal agencies. The KHSA, which includes potential removal of the Klamath dams, would be funded entirely by non-federal sources. The non-federal cost of dam removal is capped at \$450 million, per the KHSA, and the most current estimates indicate that it will likely fall well under that. The first \$200 million is paid through a surcharge added to the electricity bills

of PacifiCorp's Oregon and California customers. These surcharges would be collected until 2020, when the dams would potentially be removed.

If the cost of dam removal exceeds \$200 million, the State of California has committed to provide up to \$250 million for the project. Under the agreement, the United States is not liable or responsible for costs of dam removal, whether such costs are identified prior to the Secretarial Determination or arise at any time thereafter, including during physical activities to accomplish dam removal. If the Secretary determines that Interior or one of its agencies or bureaus is the Dam Removal Entity (DRE), neither that decision nor performance of that role will be the basis for holding the United States or any of its agencies liable or responsible for any of the DRE's costs of Facilities Removal (Section 4:10 KHSA). If dam removal costs were to exceed \$450 million, the parties would meet and confer to determine appropriate next steps. In addition, PacifiCorp, the owner of the Klamath dams, is funding a series of interim measures that are being undertaken to support and improve the resource prior to the potential removal of the four dams at a cost of approximately \$79M. These non-federal activities total up to \$529M (dam removal plus interim measures) and average approximately \$59 million per year through 2020. The states and local governments have been unable to commit to any further contribution.

Question 5. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and fea-

sible under existing authorities?

Answer. The Department of the Interior believes that the only solution that will work long-term in the Klamath Basin will be one that addresses the core issue of water supply in light of the needs of fisheries, agriculture, refuges, and Tribes. The Department of the Interior has studied this issue extensively over the last few years. The Department weighed numerous proposals and formally evaluated a number of alternatives in the Klamath Dams Environmental Impact Statement (EIS) that would help achieve long term solutions in the Klamath. According to the EIS, facilities removal paired with implementation of the KBRA provides a greater opportunity for advancing salmonid fisheries when compared to the other alternatives, makes the best use of the water supplies in the Klamath Basin for agriculture and refuges, and resolves more societal hardships and conflicts that result from over-allocation of scarce natural resources

Question 6. In your view, how did the settlement agreements affect the recently released 2013 biological opinion?

Answer. While the settlement agreements are completely separate from the Biological Opinion, the settlement process has produced an improved spirit of cooperation. Prior to settlement, a number of key stakeholders were at odds with one another. The settlement process has brought parties together, including federal agencies, and has allowed for more effective communication.

Question 7. You said that your authority is limited in its ability to help off project water users. What would you need in order to further your ability to help them?

What's holding you back from achieving this?

Answer. Reclamation's substantive authority is limited to the operation and maintenance of the Klamath Project and activities that benefit fish and wildlife affected by the Project. While Reclamation potentially has the authority to study how power and water availability might affect a resolution to the Klamath Basin Adjudication, this does not allow for the development of water or power resources outside of the Klamath Project. Reclamation would need new Congressional authorization as well as funding to take actions that would offset impacts to off-project ranching or farm-

ing operations.

Question 8. How is removal of the Klamath dams different than removal of the Elwha dams? How does this project compare to other large-scale dam removals? Please give a brief summary of some of the federal government and private sector's

major experiences with dam removal, and lessons learned to date.

Answer. One of the unique aspects of the Klamath dams compared to Elwha, Condit, Marmot, and several others in the western U.S. is the position of the Klamath Hydroelectric Project's dams in the watershed. Previous dam removals have had primarily forested lands upstream with little human development. In contrast, the Klamath Dams are downstream of significant human-affected landscapes including agricultural, ranching, industrial, and urban areas. As a result, the Klamath Dams receive incoming waters with worse water quality than other large western dams that have been removed recently, and in turn the Klamath Dams exacerbate those water quality problems within and downstream of the water quality problems within and downstream of the reservoirs.

Most notable of these problems are: (1) altered water temperature cycle of the Klamath River which delays fry emergence in the spring and causes potentially lethal temperatures as well as delayed spawning for adult salmon in the fall, (2) toxic algal blooms in Copco 1 and Iron Gate reservoirs that result in conditions posing threats to public health, pets and wildlife contacting water in the reservoirs and downstream, and (3) increased fish disease in the river below Iron Gate Dam. These problems have proven to be difficult to resolve with reservoir operational changes alone and contribute to the difficulties of meeting Endangered Species Act and Clean Water Act requirements for relicensing. As a result of these factors, improvement of water quality is a more important consideration for evaluating the potential removal of the Klamath River dams than most other recent dam removals in the

Similarities among recent western dam removals include the fact that most of the dams removed to date have been privately owned hydroelectric plants (like the Klamath dams) rather than public facilities. Decisions to remove these dams have been primarily based on economic considerations when dam removal is compared with retrofitting facilities in order to obtain a long-term FERC license. The Elwha

dams were privately held until the 1990s when they were sold to the National Park Service in the initial phases of the dam removal process. Neither Elwhanor Condit (Washington State) dams had fish passage, and passage at Marmot Dam and Savage Rapids Dam (Oregon) was inadequate and would have needed significant and expensive upgrading.

The Klamath River dams, like the Elwha, Condit, Marmot, and Savage Rapids dams, were built for hydroelectric power operations and were not designed or oper-

ated to control downstream flooding.

The most important environmental issues related to dam removal are the short-term and long-term impacts from the downstream transport of reservoir bottom sediments. The four Klamath dams have trapped about 13 million cubic yards of sediment. That estimate is predicted to grow to 15 million cubic yards by 2020. This bottom sediment is mostly fine-grained (i.e. small-diameter) silts derived from decaying algae and agricultural runoff. In terms of the size of the dam removal projects, the volume of trapped sediment place the Klamath dams behind Elwha (34 million cubic yards of mostly coarse sand, gravel and cobbles) and ahead of Condit (1.3 million cubic yards of a mixture of silts, sands, and gravels), and Marmot (950,000 cubic yards of coarse sand, gravel, and cobbles). The proportion of bottom sediment actually eroded and exported downstream (or predicted to be exported), varies among dams: Elwha (greater than 50%), Klamath (about 57%), and Marmot (about 21%).

The Klamath Dams' sediment particles are smaller in size than those behind other major dams removed in the west. The size of the sediment particles is important in determining the rate and timing of erosion and the ultimate downstream disposition of sediment during and after dam removal. Computer modeling was used to predict the extent, timing, and rate of erosion of the bottom sediments behind the Klamath dams to optimize when dams should be removed to be most protective of sensitive fish species in the basin (e.g. coho salmon).

The removal of the Klamath Dams would open up over 400 miles of new habitat

The removal of the Klamath Dams would open up over 400 miles of new habitat for fish in the upper basin. Recent dam removal experience has shown that fish have rapidly colonized the newly created habitat both below and upstream of other removed dams after the initial sediment pulses have diminished; however, this has been poorly monitored or documented in most places except in the Elwha.

In contrast to the critical infrastructures downstream of the Elwha dams (a drinking water plant and fish hatchery), impacts to critical downstream infrastructures on the Klamath are anticipated to be limited to the City of Yreka drinking water supply pipeline, which could be mitigated for, and several individual properties immediately downstream of Iron Gate dam.

Question 9. What is the status of the replacement power envisioned under the agreements? Have any initial steps been taken to secure this power, including conversations with BPA? If congressional authorization is necessary, please explain the reason and how much this would cost under the agreements. Also, please explain

any potential complications associated with this power.

Answer. Senators Wyden and Merkley, Congressman Walden, and Governor Kitzhaber have formed the Klamath Basin Task Force and asked for recommendations on providing affordable and certain power supplies for the Klamath Reclamation Project and the Upper Klamath Basin irrigators. The workgroup formed to address this issue consists of the Department of the Interior, Bureau of Reclamation, Bonneville Power Administration, PacifiCorp, the Klamath Water Users Association, and the Klamath Water and Power Agency. Recommendations from this workgroup, including detailed steps needed to secure and deliver preference power to the Oregon portion of the Klamath Project, are expected in late September. Although Reclamation is already authorized to acquire federal power for the Klamath Project, Congressional authorization would be required to secure federal power for irrigation for areas outside of the Klamath Project.

RESPONSES OF RICHARD WHITMAN TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In your view, what is the responsibility of the federal government in the Klamath Basin?

Answer. The federal government is responsible for at least four sets of interests that are particular to the Klamath Basin. First, in the 1800s, the federal government entered into a series of treaties with Native American tribes with interests in the basin. Some of these treaties expressly recognized that the tribes were reserving rights to fish, hunt and gather. Other tribes retained, or were granted, lands in reservations. These agreements between the United States and sovereign tribes

mean that the tribes retain rights to the water necessary for those uses to continue. The federal government has a trust responsibility to preserve these rights.

Second, beginning at the turn of the last century, in 1905, the federal government authorized the Klamath Reclamation Project. Since that date, the Bureau of Reclamation and other federal agencies have actively promoted the development of irrigated farmland through federal investments and contracts with districts, individuals and private businesses. Irrigated agriculture is a continuing mainstay of the economy of this area of Southern Oregon and Northern California. When irrigation must be curtailed or stopped in order to protect fisheries, as occurred in 2001 and as is occurring to some degree this year, substantial economic harm can occur in farming communities that were built on the premise of reliable water supplies.

Third, the federal government is a co-manager of salmon fisheries that depend on the Klamath Basin. Both Oregon and California coastal communities rely on these fisheries as a key source of income. When those fisheries must be closed or curtailed due to water management problems on inland waters, as occurred in 2002, there can be substantial economic harm along the coasts of both states, as well as to tribal fisheries on the Klamath River. In addition, through the licensing of hydroelectric dams on the Klamath River, without providing for fish passage, the federal govern-

ment has allowed the substantial diminishment of these fisheries.

Fourth, the federal government is the predominant land owner in much of the Klamath Basin. The lands it manages include wildlife refuges managed by the U.S. Fish and Wildlife Service, several national forests, lands administered by the Bureau of Land Management, and a portion of Crater Lake National Park. The federal government's responsibilities in each of these arenas often conflict as a result of there being too little water to fully satisfy demands for fisheries, irrigation, refuges and other uses. As an example, the upper Klamath Basin, water shortages this year have led to curtailment of irrigation uses, water use in Crater Lake national park, and on lands managed for wildlife, all in order to provide more water for fisheries. The states of Oregon and California share some responsibility for this over-alloca-

tion of water resources. In Oregon, the state recently completed the first phase of a comprehensive adjudication of federal and pre-1909 water rights (following periodic court challenges from the federal government) in the Klamath basin. The completion of this phase of the adjudication now makes it possible for the state to regulate water use according to the prior appropriation doctrine. Up until this time, upstream users of water were seldom affected by shortages, while downstream users including the Klamath Irrigation Project and fisheries, suffered in drought years. Over-allocation of water has caused the Klamath Basin to careen from crisis to crisis, first affecting the Klamath Irrigation Project (which was shut down in 2001), then affecting lower basin tribal and non-tribal fisheries (including coastal fisheries)

in 2002 and 2004, and finally affecting upper basin off-project irrigators this year (with a near-complete shut-off of water for irrigation beginning in mid-June).

Under the current legal framework, including the water rights adjudication, resources are allocated in ways in the Klamath Basin that give no one interest what it needs for long-term economic and social stability. Given its central role in creating this situation, the federal government has the responsibility to lead the other interests in the basin to a comprehensive long-term negotiated resolution of these conflicting demands in a resolution that brings stability to the region's economy, that meets its obligations to federally-recognized tribes, and that meets its other national responsibilities for load materials.

responsibilities for land, water, and other resource management.

Question 2. In your opinion, what is the "best case" scenario for the basin in the

future? What is the "worst case scenario?

Answer. The best case scenario is one where water resources are shared more equitably between competing interests in years when water is scarce, one where fisheries are restored and become available to tribal and non-tribal interests for utiliza-tion, one where the Klamath Tribes have a land base restored that provides an economic future, one where irrigators have a greater level of predictability in knowing when and how much water will be available, and one where lands and waters are managed to provide for the needs of wildlife benefitting all Americans

The Klamath Basin Restoration Agreement (KBRA) provides a foundation for many of these outcomes. However, there are some aspects of a comprehensive settlement that have not been completed - notably a water right settlement between the

Klamath Tribes and upper basin off-project irrigators.

The worst case outcome is a full reversion to management through litigation in Oregon and in California, involving Central Valley water as well as the Klamath, with incalculable costs and high levels of unpredictability for all interests. For now, the KBRA has stabilized conflicts between most of the competing interests, but that stability could unravel quickly if Congress fails to provide necessary authorizations for federal agencies, or fails to appropriate funds required to implement the actions needed to restore the basin to environmental and economic health.

Question 3. Has there been any discussion of further paring down the agreements? Has there been any discussion of nonfederal parties, including nonprofits, states, or local entities, taking on any of the actions that are currently envisioned as federal responsibilities?

Answer. Yes, in answer to both questions. The KBRA parties completed a significant review of programs and program costs in 2011. That review reduced the costs of KBRA implementation by 18 percent. At that time, the States of Oregon and California also agreed to take responsibility for funding programs to mitigate the local economic effects of dam removal.

More recently, the parties to KBRA have discussed deferring some elements of the agreements until a later time when there is a higher level of certainty regarding some aspects of restoration such as water quality. In addition, both the States of Oregon and California already have committed to continuing and expanding current oregon and california already have committed to continuing and expanding current activities in the basin, and non-governmental entities are actively exploring non-federal funding for some actions. Most recently, the National Fish and Wildlife Foundation (NFWF) committed ten million dollars to funding restoration work in the upper Klamath basin. Annual expenditures from non-federal sources (state and non-governmental) to restore the Klamath over the next seven years are expected to exceed federal expenditures over the same period.2

Question 4. Are there other methods to make better use of water supplies in the Klamath that are 1) not covered in the KBRA and KHSA; and 2) available and feasible under existing authorities?

Answer. The hydrology of the Klamath basin is highly dependent on temperature and precipitation, particularly in the winter and early spring. If, as predicted, temperatures rise during this time period, the proportion of precipitation falling as snow is expected to drop and runoff will shift to earlier in the year while low flow periods will lengthen. These trends, along with existing competing demands for water, have led to continuing interest in increasing the amount of water storage in the basin.

The Bureau of Reclamation recently completed an initial investigation of 36 water storage options to identify the most promising storage opportunities.3 The investigation supported advancing only two options to appraisal studies at this time: (1) an aquifer storage and recovery (ASR) groundwater option at Gerber Reservoir and (2) a hybrid option involving ASR (groundwater) at Clear Lake and surface storage at a new Boundary Dam and Reservoir. However, even these two options were not found to have strong economic viability at this point.4

It is likely that increased use of ground water, and improved efficiency of water use are less expensive alternatives for improving the use of water supplies. The USGS and the Oregon Water Resources Department (OWRD) recently completed an analysis of the level of long-term ground water use possible in the basin on a sustainable basis.⁵ In recent years, increased use of groundwater in both the Klamath Irrigation Project and for off-project water users effectively has been used as a storage source for dry years. However, it appears this source is fully-allocated in Oregon, and OWRD has stopped issuing new groundwater rights. Another problem with increased reliance on ground water is the high electric costs associated with this use, costs that have increased substantially since the expiration of the contract between project irrigators and PacifiCorp

Increased water use efficiency could effectively stretch existing water supplies between competing uses. Oregon has a conserved water statute that allows water right holders to retain most conserved water, while dedicating the remainder to instream uses. This mechanism generally requires public funding, at least in part, to make water conservation worthwhile for water right holders.

Question 5. In your opinion, what were the most surprising findings in DOI's dam removal studies? What were the most controversial parts?

¹Klamath Basin Restoration Agreement Revised Cost Estimates, Klamath Basin Coordinating Council, June 17, 2011, at page 4.

² Klamath Basin Restoration Agreement Revised Cost Estimates, Klamath Basin Coordinating

Council, June 17, 2011, at pages 4-5.

³ Initial Alternatives Information Report, Upper Klamath Basin, Offstream Storage Investigations, Oregon and California, U.S. Bureau of Reclamation, May 2011.

⁵ U.S. GEOLOGICAL SURVEY. Scientific Investigations Report 2007-5050. Version 1.1, April 2010, Ground-Water Hydrology of the Upper Klamath Basin, Oregon and California. Prepared in cooperation with the Oregon Water Resources Department. By Marshall W. Gannett, Kenneth E. Lite Jr., Jonathan L. La Marche, Bruce J. Fisher, and Danial J. Polette.

Answer. The most surprising findings were the projected costs of dam removal. The studies found that the most likely cost of dam removal was \$292 million (\$242 if portions of structures are left in place). This cost is significantly lower that earlierestimates, and has raised the possibility of some additional non-federal funding being devoted to actions other than dam removal. The extent of employment increases resulting from improved river conditions and increased reliability of water supplies for irrigation was also higher than expected.

The amount and characteristics of sediment currently entrained behind the dams continues to be controversial even though the studies completed by the Department of the Interior have shown that adverse impacts to fisheries would be short-term,

and that concerns about other impacts being significant are unwarranted.

Question 6. Is there a point in the future at which you would no longer support

this process going forward if Congress has yet to act?

Answer. No. Regardless of Congressional action or inaction, the interests in the Klamath basin will need to continue coordinating management of water, fisheries and economic matters. The close coordination between federal agencies, irrigators and the Tribes in developing the biological opinion for the Klamath Irrigation Project is one example of how the relationships that have been built over the past ten years are already benefitting the region.

Question 7. What is the likely outcome of the recent call on water made by the federal government and the tribes? For instance, how would it affect project irrigation allocations for the remainder of the water year? How might it affect off-project

irrigators and ranchers?

Answer. The calls for water regulation by the Klamath Tribes, the federal government, and irrigators within the Klamath irrigation project are resulting in all surface water diversions in the upper Klamath basin, including irrigation around Klamath Lake, being shut off. Minor exceptions have been granted for human consumption and water for stock. The Klamath Irrigation Project made calls for regulation of water diversions junior to 1905, and this call is affecting many water users diverting from small streams that feed into Klamath Lake as well as diversions from the lakeitself. The Tribes' call, made jointly with the Bureau of Indian Affairs, is affecting water use in the main tributaries above Upper Klamath Lake: the Wood River, the Williamson River, the Sprague River, and the Sycan River.

The water calls have not affected the Klamath Irrigation Project. Water diversions for the Klamath Project are set primarily by the recent biological opinion issued by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (as long as such diversions are within the water rights recently confirmed in the Klamath Adjudication). Under the biological opinion, water use within the Klamath Project has been curtailed through land idling and increased use of groundwater.

Project has been curtailed through land idling and increased use of groundwater. Question 8. In your view, how did the settlement agreements affect the recently released 2013 biological opinion? Was this influence (if there was any) positive or

negative?

Answer. The fundamental effect of the KBRA in terms of operations of the Klamath Irrigation Project is that the KBRA parties, including the Bureau of Reclamation, agreed to limit project diversions (including the refuges) to no more than 378 thousand acre feet of water in dry years (years when inflow into Upper Klamath Lake is projected to be less than 287 thousand acre-feet for the March to October period). In effect, this constrained the Bureau's (and the U.S. Fish and Wildlife Service's) proposed action to this maximum quantity of water diversion in dry years.

The recent biological opinion further limited project diversions in very dry years, based on inflow projections into Upper Klamath Lake. In this year, the biological opinion limits project supply to 289,000 acre-feet, below the levels agreed to in KBRA.⁷ As a result, at least for this year, it does not appear that the KBRA's limitations on water diversions are the controlling factor in water use by the Klamath Irrigation Project.

More generally, the diversion limitations in KBRA reflect an approach that balances water needs in the upper and lower portions of the Klamath basin based on a range of water year types. The recent Biological Opinion appears to be based on a refinement of that basic balancing of water needs for upper and lower basin needs, including those of the Klamath Irrigation Project.

⁶KBRA, at E-25

⁷ Klamath Project 2013 Operations Plan, at 2, U.S. Bureau of Reclamation, June 1, 2013.

APPENDIX II

Additional Material Submitted for the Record

STATEMENT FOR THE RECORD BONNEVILLE POWER ADMINISTRATION

The U.S Department of the Interior's Bureau of Reclamation (Reclamation) has The U.S Department of the Interior's Bureau of Reclamation (Reclamation) has approached the Bonneville Power Administration (BPA) with a request to provide Federal power service to the Klamath Basin Irrigation Project's load. This request was made to the Administrator by letter received on August 27,2009, requesting a contract(s) for the purchase and delivery of power to serve existing Reclamation load within the Klamath Project in Oregon. The letter noted the load was approximately 10 average megawatts and currently is served by PacifiCorp. The Klamath Basin Project load has historically been served by PacifiCorp. Reclamation also requested transmission service to an interconnection point between BPA and PacifiCorp and transmission service to an interconnection point between BPA and PacifiCorp and stated Reclamation would work directly with PacifiCorp to arrange for lower voltage service over its distribution system. Costs would be recovered from Reclamation's Klamath Project beneficiaries.

BPA markets and disposes Federal power to Federal agencies in the Pacific Northwest, including Reclamation. BPA recognizes existing service to Reclamation for Reclamation project loads as a qualified customer and as meeting our standards of service for those projects. To accommodate the requested service, Reclamation would have to demonstrate an ability to purchase and Lise Federal power sold for Klamath Project loads by developing a plan of service which would include the following: I) demonstrate that PacifiCorp relinquishes its service obligation for the Klamath Project loads; 2) identify and provide details of specific loads, location, metering information, and transmission; 3) detailed information on acceptable arrangements for billing, collection, and payment for services provided. Acceptable information would allow an offer of a standard Regional Dialogue (current) BPA power sales contract for service to the Klamath Project

BPA's response letter of November 9, 2009 pointed out additional considerations in order for BPA to accommodate Reclamation's requested service to the Klamath project, including:

1. BPA's Tiered Rates Methodology which provides Priority Firm (PF) service at Tier 1 and Tier 2 rates. Tier 1 rates are based on costs of the existing Federal system and Tier 2 rates are based on costs of additional resources or purchases needed to serve.

2. The size of the new load can affect the timing of service charged at Tier 1 rates if the load is 10 average megawatts or greater. If greater than 10 average megawatts in a rate period, service at the Tier 1 rate may be phased in over more than one rate period and other PF rates may apply to a portion of

3. BPA would need a notice from Reclamation for a binding commitment to purchase power so that the power purchases may be included in load planning for BPA rates. Notice by July 1 of a forecast year (or notice 3 years in advance of the new rates being applicable if the load is 10 average megawatts or greater) would allow service at the Tierl rate for the next rate period based on Reclamation's BPA Regional Dialogue contract including a Contract High Water Mark. ¹ Execution of a Regional Dialogue contract itself would constitute binding notice.

4. Service from BPA at an interim rate would be available but the rate would reflect any additional incremental purchase power costs that BPA incurs to provide the power service prior to service being available at the Tier] rate. BPA

¹Contract High Water Mark is a calculated amount of power expressed in average megawatts that is used to determine the service priced at BPA's Tier 1 Priority Firm Power Rate under its Tiered Rates Methodology.

has an Unanticipated Load Service² rate for interim service under its Priority Firm Power ³rates.

Over the past four years BPA has engaged in discussion with Reclamation, PacifiCorp and irrigation water users of the Klamath project about the timing and implementation of BPA Federal power service to Reclamation. In these discussions, BPA has made Reclamation, PacifiCorp and others aware of the following points:

1. BPA has the authority, but not the obligation, to serve Federal agency loads in its marketing area, the Pacific Northwest, by providing firm power under contract pursuant to section 5(b)(3) of the Pacific Northwest Power Planning and Conservation Act of 1980, P.L. 96-501.

2. Service to Federal agency load is at the discretion of the Administrator and is provided at a priority firm power rate under section 7 of the Pacific North-

west Power Planning and Conservation Act of 1980, P.L. 96-501.

3. A Federal agency customer has to be qualified to take the power under BPA Standards for Service adopted pursuant to section 5(b)(4) of the Pacific Northwest Power Planning and Conservation Act of 1980, P.L. 96-501, A Federal agency must be ready, willing, and able to take the power provided for use in load, meaning the agency must be able to accept delivery and distribute the power to load and must have the technological capability to allow accurate me-tering and billing. An agency needs to have use of or access to distribution for end use but does not need to own the distribution.

4. Reclamation is currently a customer of BPA for several other end-use irrigation project loads that use nonfederal distribution or transmission to provide delivery of service, such as the ROZA project and the Minidoka project. While Reclamation is not currently a customer for the Klamath project, BPA has de-

termined that Reclamation is a qualified customer

5. BPA cannot provide firm power service to Reclamation for the Klamath Project loads which are outside of the Pacific Northwest. Consistent with stattes, BPA could only provide power that is sold on a surplus, recallable basis to out-of-region Klamath Project loads under the Pacific Northwest Consumer Power Preference Act, P.L. 88-552 and section 9(c) of the Pacific Northwest Power Planning and Conservat.ion Act of 1980, P.L. 96-501. BPA surplus power is provided only when and as available and is not guaranteed service.

6. For many years BPA has had an administrative policy that it does not com-

pete with its ntility customers for retail loads served by those customers. PacifiCorp is the current serving utility and before BPA provides service for Reclamation Klamath Project loads, PacifiCorp must relinquish its service to those loads, including conclusion of any Oregon Public Ut.ility Commission (OPUC) approval process or finding needed by PacifiCorp for this action.

To further the completion of the service to Reclamation for Klamath Project load, BPA would need to have Reclamation provide the following information and confirmations as preparation for BPA to execute contracts with Reclamation for power and transmission services to this load:

1. Reclamation must provide information identifying the exact loads, pumps and equipment and the metering locations which comprise the Klamath Project load to be served. Arrangements must be made for EPA-approved metering of these loads. The costs of metering and communications equipment necessary to aggregate and electronically access essentially real-time simultaneous demands of the Klamath Project loads are the responsibility of Reclamation. In addition, a plan of service which identifies distribution usc, transmission line service and point(s) of delivery from BPA to the PacifiCorp system must be created.

2. Reclamation must confirm that the Klamath Hydroelectric Settlement

Agreement (KHSA) is effective and implemented and all contingencies have been met. The KHSA provides PacifiCorp's agreement that the identified Klamath Project loads will be served by Federal power. Any OPUC approval or review must be completed. BPA will not duplicate service to these loads.

3. Transmission service for Federal power must be arranged. Reclamation must arrange Network Transmission (NT) service with BPA's Transmission Services suitable to deliver Federal power to an agreeable interconnection point

³Priority Firm Power rates are rates established by BPA under section 7(b) of the Northwest Power Act of 1980 and available to BPA's preference and federal agency customers.

²Unanticipated Load Service is an amount of power that BPA provides to a qualified customer during a rate period that was not included in the load forecasts used for setting rates for that rate period. The load may be new load or load that was acquired by a customer during a rate period of which BPA did not have notice to include in its forecasts.

on PacifiCorp's transmission system in southern Oregon. In 2010 BPA was able to assist Reclamation in obtaining a NT Service Agreement. Notwithstanding this agreement, Reclamation is aware that it cannot make a Transmission Service Request under the agreement until after Reclamation and BPA have excuted a formal power sales agreement, at which time Reclamation can designate BPA's Federal power as its Network Resource to serve Klamath Project load.

4. Once there is a signed Regional Dialogue contract in place, BPA Power Services would arrange transfer service across PacifiCorp's transmission system in southern Oregon to a Point of Delivery on PacifiCorp's transmission system near the Klamath Project loads. In order to schedule Reclamation loads, BPA will need Reclamation to have a tool for aggregating all the meter data from the irrigation loads.

5. Details needed for completing negotiation of a BPA power service contract under BPA's Regional Dialogue Policy and standard contract templates, would

need to be provided.
6. Including binding notice of when power service would commence, identification of applicable rates and services, billing and metering processing, contact persons, and other elections of applicable terms.

Once these steps have been taken and information provided, BPA would undertake a public process on the execution of a contract for service to Reclamation. BPA's Regional Dialogue policy allows for the addition of new load service to both public agencies and Federal agencies. BPA anticipates the ability to execute a standard form firm power sales contract with Reclamation for service at BPA priority firm power rates. The rate applicable for service to Project load will depend upon the timing of the completion of these steps and Reclamation's notice of a binding commitment to purchase power. Although BPA might consider execution of a contract as early as possible, BPA Regional Dialogue Policy does not allow execution of contingent power sales contracts and execution of a contingent contract would raise an additional issue for public review and modification of current BPA power sales policy. Therefore BPA prefers to have Reclamation, PacifiCorp and other parties complete the necessary steps for the requested Federal service prior to the Administrator's final execution of a Regional Dialogue power sales contract and transmission agreements with Reclamation for service to the Klamath Project load.

Thank you for your consideration.

STATEMENT FOR PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS

The water crisis in the Upper Klamath Basin has major regional impacts, including throughout much of the West Coast commercial ocean salmon fisheries. The depressed fall-run chinook salmon stocks of the Klamath are in the very center of the West Coast's "Lower 48" ocean salmon commercial fishery, and thus intermingle in the ocean with all other salmon stocks all the way from Monterey, CA to central Washington (see APPENDIX 1 attached*). Yet in spite of a helpful upward spike in escapement numbers for 2012, these Klamath-origin fall chinook stocks still remain very weak.

One of the most important and most urgent actions that can be done to restore the battered West Coast ocean commercial salmon fisheries in the "Lower 48" is to restore the valuable and once-great salmon runs of the Klamath River, once the third largest runs in the U.S. outside of Alaska.

On February 18, 2010, after nearly 100 years of increasingly bitter Klamath Basin "water wars," including many lawsuits, and after several disastrous Klamath-driven 2005, 2006 and 2007 partial or complete shutdowns of ocean commercial salmon fisheries over more than 700 miles of coastline, some 43 major stakeholder groups and government agencies (including two Governors, one a Republican and one a Democrat) came together to announce that they had finally reached a "Klamath Settlement" that gave real hope for stabilizing and restoring that key West Coast salmon-producing basin— and ultimately restoring thousands of lost jobs.

Yet the "Klamath Basin Economic Restoration Act" (S. 1851 and H.R. 3398), a bill

Yet the "Klamath Basin Economic Restoration Act" (S. 1851 and H.R. 3398), a bill which would have fully implemented that key Settlement, was more or less ignored by the just ended 112th Congress, and the bill never even got a hearing.

Now, more than three years after the Settlement was signed, and for purely ideological reasons that fly in the face of all the facts, certain members the U.S. House of Representatives continue to delay House approval, trying to block it in Congress.

^{*}All appendicies have been retained in committee file.

For the West Coast salmon-dependent communities of California, Oregon and southern Washington, continued Congressional inaction on solving the Klamath's salmon decline problems is simply not acceptable.

Failure to pass the necessary legislation to implement the landmark Klamath Settlement Agreements puts the entire mixed-stock ocean commercial fisheries of those three states—worth several hundred million dollars a year—at continued risk of fu-

ture Klamath-driven coastwide closures.

Why the Klamath Matters to Commercial Fishermen

The Klamath Basin was historically the third-largest salmon producing river system in the U.S. outside of Alaska, with its large original salmon populations only surpassed by the Columbia and Sacramento-San Joaquin Rivers. Before European development, the Klamath produced an estimated average of 880,000 returning adults salmonids each year. Today, however, more than 90 percent of its salmon habitat has been destroyed or blocked by aging dams.

Lost salmon habitat means declining populations. In years like 2006, in which the fall-run chinook (the only healthy Klamath salmon run still left) could not even meet its 35,000 "minimum spawner floor," (the minimum ocean escapement that allows any harvest), these declines have meant widespread or total "weak stock management" ocean salmon season closures over most of the northern California and Oregon coastline, triggering severe restrictions even well into southern Washington.

That 2006 closure alone cost the West Coast fishing industry more than \$100 million in economic losses, and required \$60.4 million in Congressional disaster assistance. Only slightly less depressed seasons also occurred in 2005 and 2007 for the same reasons, also costing our industry many tens of millions of dollars that has never been compensated, and putting many coastal fishing jobs at risk.

And unless something is dramatically changed in the Klamath Basin, such as the Congressional approval and implementation of the Klamath Settlement Agreements, this perpetual boom-bust cycle of economic losses and Congressional disaster assistance will occur every few years, with no end in sight. Thousands of fishery jobs and dozens of coastal communities will remain at risk.

Removing Fish-Killing Dams

Today the heaviest impact on Klamath salmon production by far comes from a series of four small hydropower power dams originally all built since 1918 without fish passage (a lack which would be illegal today), along the Klamath River near the California-Oregon border. These dams are owned by PacifiCorp (aka Pacific Power), a privately owned but publicly regulated utility company providing power to about 560,000 Oregon and 40,000 California customers.

But these are not large dams, nor are they particularly valuable as power producers. The four dams combined have in fact generated less than 82 MW of electrical power on average (less than 2 percent of PacifiCorp's total power portfolio) over the last 50-year Federal Energy Regulatory Commission (FERC) license. By comparison, a single modern power plant could reliably generate more than 1,000 MW of power. Even off-the-shelf wind turbines can now generate up to 6 MW each. Just very modest energy conservation investments could also very cost-effectively make up the difference.

It would thus take relatively little additional investment to replace the mere 82 MW these four dams combined actually generate, with many such opportunities in PacifiCorp's massive six- state power grid. In fact, PacifiCorp is already committed to bringing at least 1,400 MW of brand new renewable (i.e., non-carbon) electrical power online by 2015 (See APPENDIX 2 attached* for citations). This is more than 17 times the total power losses from Klamath dam removal. The Company actually expects to considerably exceed that goal.

Reservoirs behind the dams also create or greatly contribute to serious river water quality problems, including slowing down and warming the water above tolerance levels for cold-water salmon, concentrating nutrients, curtailing natural gravel recruitment, and encouraging the explosive growth of toxic blue-green algae as well as encouraging the growth of fish pathogens downriver such as Ceratomyxa shasta and Parvicapsula minibicornis. Toxic algae blooms and massive outbreaks of these fish pathogens are both now endemic to the Klamath Basin—all because of decreasing water quality traced largely to the dams.

ing water quality traced largely to the dams.

However, that 50-year FERC license to operate these four dams expired in April 2006, and is only being extended annually while an ultimate decision on whether to relicense them is pending. But fixing these dams up to modern relicensing standards would likely cost more than they are now worth, especially for such a small amount of power, and especially under the terms of the portion of the Settlement

dealing with the dams, which is the "Klamath Hydropower Settlement Agreement (KHSA).

Under the KHSA, therefore, PacifiCorp has agreed that these four economically obsolete hydropower dams would be completely taken down in 2020— and full salmon passage restored. This would restore access for salmon to more than 420 streammiles that were previously blocked, nearly doubling the river's valuable salmon

More Water For Klamath Salmon

The other major constraining factor for lower river salmon production is sheer lack of water for fish. In the upper basin, about 220,000 acres of farmland is now irrigated as part of the federal Bureau of Reclamation Klamath Irrigation Project. The Bureau's water right claim is currently for effectively unlimited amounts of water, so long as they can use it for irrigation. Prior to recent federal Endangered Species Act (ESA) constraints, the Klamath Irrigation Project typically diverted up to 435,000 acre-feet of water from Upper Klamath Lake for this purpose, with its higher diversions in the driest water years— thus exacerbating the impacts of all droughts on lower river salmon.

At least another 110,000 acres of irrigated lands also exist that are hydrologically above the federal irrigation Project, along the Williamson and Sprague Rivers which feed Upper Klamath Lake. These lands either divert water directly from the flows to Upper Klamath Lake or irrigate from groundwater pumping, some of which could be reducing nearby stream flows by curtailing inflows from aquifer springs.

A big source of water conflicts in the upper Klamath basin revolves around ESA protections both for resident fish in Upper Klamath Lake and for ESA-listed Klamath coho salmon below the dams. Water over-allocation led to a major confrontation between the federal ESA and state-based water rights during the near-record drought of 2001. That year many Klamath Project farmers who were dependent upon federal Project water deliveries found themselves losing much of their anticipated water deliveries (and their crops), causing serious economic losses to these Project-dependent farmers and resulting in a sharp political backlash.

Yet in a politically-driven effort to restore full irrigation deliveries in the upper basin, in spite of continued drought, in 2002 the Bush Administration then severely cut back water to the lower basin just as the adult salmon runs were returning to spawn, causing the premature death of more than 70,000 adult spawners before they could lay their eggs—said to be the largest adult fish kill in U.S. history

These and similar back-to-back water, farming and fisheries crises in 2001, 2002, 2005, 2006, 2007 and 2010 resulted in rotating economic disasters throughout the Klamath basin, punctuated by nearly constant litigation and political gridlock. These back-to-back crises also required large amounts in federal disaster aid between the years 2001 and 2010—about \$17 million in federal disaster aid per year average, and in one year (2006) as much as \$60.4 million. Similar rotating economic disasters-and consequent need for ever more federal disaster assistancelikely recur in the future unless the systemic problems in the Klamath basin are

ultimately fixed. The "cost of doing nothing" in the Klamath is very high.

This past decade of disasters amply demonstrates the desperate need for change in the Klamath basin for both farmers and fishermen alike. The two parallel Klamath Settlement Agreements represent that much needed change.

The Klamath Settlement Agreements were the result of nearly 10 years of hard fought efforts by all the basin's major stakeholder groups, including PCFFA representing the interests of ocean salmon fisheries, to finally resolve these problems

and to restore the Klamath's once-great salmon runs.

The Klamath Settlement is a bi-partisan, bottom-up, stakeholder-driven and both biological and economic restoration plan. It is also precisely the sort of long-term, locally-based restoration plan we were told by previous Congress's was needed.

This once-in-a-lifetime economic restoration opportunity should not be sabotaged by Congressional foot-dragging. The Klamath Basin will most certainly return to the chaos and conflicts of the past if these conflicts are not ultimately resolved through this Settlement. There is no other viable alternative even remotely on the table.

How Klamath Restoration Benefits Commercial Fishermen And Coastal and Farming Communities

For more than 90 years now, the four PacifiCorp-owned dams have blocked access to more than 420 stream-miles of once fully occupied salmonid habitat above the -habitat which fishery biologists estimate could still support as many as 111,000 additional salmonids.

In other words, the salmon runs of the Klamath would nearly double as a result of full implementation of both the habitat restoration and dam removal components

of the Klamath Settlement, restoring hundreds of lost fishery-dependent jobs. Because the Settlement also provides more water certainty, many more jobs would also be restored to upper basin farming communities as well. Estimates under the recently completed NEPA analysis indicated that full implementation of the Klamath Settlement Agreements would mean about 4,600 additional jobs to the basin and region (see APPENDIX 3 attached*). And most of those jobs in both the farming and fisheries sectors would be permanent. In these depressed rural economies this is no small economic benefit.

Once approved by Congress, the Klamath Settlement Agreements would, among other benefits to salmon fisheries: (1) permanently restore between 130,000 and 230,000 acre-feet of water back to the Klamath River to benefit salmon, the total amount each year depending on rainfall; (2) help "drought proof" the lower river and its salmon runs as much as humanly possible, including implementing the Settlement's first ever "Drought Plan" for the river; (3) restore access for salmon to more than 420 stream-miles of previously occupied habitat now blocked by the four obsolete Klamath dams; (4) greatly improve Klamath River water quality, gravel recruitment and other ecological functions necessary for maximizing salmon production; (5) greatly diminish the incidence of various fish pathogens and diseases that are exacerbated by current poor in-river water quality conditions; (6) provide the Klamath and Tulelake National wildlife refuges a guaranteed annual water supply for the first time, and; (7) authorize a highly cost-effective and coordinated 50-year salmon habitat restoration program to help fully restore the basin's damaged salmon habitat over time.

A thorough scientific and economic NEPA analysis has already been done on the A thorough scientific and economic NEFA analysis has already been done on the likely impacts of the Klamath Settlement, including dam removal, and those results are very encouraging. None of the various "scare stories" about toxic sediments, impacts on flood control or irrigation impacts have been shown to have any merit. More than 50 studies were completed for this NEPA analysis, and the analysis was subjected to highly unusual triple levels of independent peer review, assuring that all potential biases have been eliminated. No complaints of such bias have ever been upheld, nor found to have any merit.

STATEMENT OF JILL K. DUFFY, FORMER HUMBOLDT COUNTY SUPERVISOR 5TH DISTRICT, ORICK, CA

As the former Humboldt County Supervisor-Fifth District (2003-2010),I participated in and represented the County of Humboldt through the five-year negotiation that resulted in "the Klamath Agreements". Humboldt County, along with other local governments, state and federal agencies, tribes, irrigators, fishermen, conservation groups, and PacifiCorp, were among the nearly 30 parties that actively participated in the negotiation process leading to the develop- ment of the Klamath Hydro-electric Settlement Agreement and the Klamath Basin Restoration Agreement.

I respectfully request your support of the KBRA because it represents an unprecedented opportunity to resolve longstanding disputes involving dams, water diversions, and salmon runs in the Klamath Basin. Together,the KBRA and KHSA will create a comprehensive framework and mechanisms to achieve major watershed restoration through improved river flow regimes, habitat rehabilitation, improved water quality, and fisheries restoration and re-introduction, long-term sustainability and monitoring that will allow for adaptive management to adjust during the next 50 years. The KBRA also will resolve a number of water conflicts that have embroiled the basin in controversies and lawsuits for decades. In light of the recent Oregon water adjudication determinations, upper basin water users and the six Klamath Basin national wildlife refuges need the water sharing provisions contained in the KBRA to sustain their livelihoods and productivity.

The fact that the KBRA reflects compromise is a sign of its strength. The settlement process brought together stakeholders and we worked together-despite our differences—to find practical solutions that benefit the basin as a whole.

I though you for your efforts to facilitate the Klamath hearing before the Energy.

I thank you for your efforts to facilitate the Klamath hearing before the Energy and Natural Resources Committee, and respectfully request the Committee favorably report legislation to authorize implementation of the agreements.

STATEMENT OF EARL DANOSKY, GENERAL MANAGER, TULELAKE IRRIGATION DISTRICT, TULELAKE, CA

On behalf of the Tulelake Irrigation District (TID), I thank you for your leadership in conducting this important oversight hearing. This testimony has been prepared to provide the perspective of TID, which has a long track record of addressing

the water resources challenges facing the Klamath River watershed.

Our testimony focuses primarily on TID's support for the Klamath Settlement Agreements (Agreements). TID supports the Agreements because they stabilize power costs and improve water supply reliability for Klamath Reclamation Project (Klamath Project) irrigators like those served by TID. Our district has been engaged in Klamath Basin water management issues for decades. Just ten years ago, we were battling with competing interests in the Klamath Basin in the court rooms, newspapers, and scientific journals. We have learned that no amount of fighting over the years has created more rain. Collaboration and cooperation to us is a better path to success than litigation and confrontation. Now, we have joined many of

these same interests to truly seek "peace on the river".

We commend the Committee's leadership in providing this oversight hearing. The timing of this is critical, given that we are facing yet another water crisis in the Upper Klamath Basin this year.

The Settlement Agreements represent years of intense negotiations between the federal government, two states, three tribes, a power utility, and agricultural, conservation and fishing interests. The Agreements are complete, and represent the one true, comprehensive plan that can be implemented now, with Congressional support. We cannot afford to have a repeat of this year anytime soon.

Personal and Professional Background

I have worked at TID for the past 41 years and have been the Manager since 1979. I have firsthand knowledge of the operations of TID and the Klamath Project. My responsibilities include overseeing all irrigation and drainage functions of TID, supervising all of its employees, and reporting to and advising TID's Board of Directors. I am also the custodian of TID's records.

About Tulelake Irrigation District

TID is a California irrigation district formed and existing under California Irriga-tion District Law. Under California law, TID was established by and represents landowners and water users in Siskiyou and Modoc Counties, California. TID operates and maintains numerous facilities for the delivery of water and drainage of lands within TID.

Located within the Upper Klamath Basin, TID's northern boundary is contiguous to the border between California and Oregon and extends from the Oregon-California state line south about 14 miles to the lava beds. TID includes lands in both Modoc and Siskiyou Counties and is bounded on the west by High Rim and Barn Top Mountains and extends east about 12 miles. The exterior boundary includes 96,000 acres. Tule Lake and the Tule Lake National Wildlife Refuge (TLNWR) lie within the boundaries of TID.

The irrigable acreage of TID is approximately 64,000 acres, of which approximately 18,000 acres are Federal Lease Lands owned by the United States; with

most of this acreage leased to private growers for crop production.

TID relies on water diverted in Oregon from the Klamath River system. The majority of acres served by TID, in excess of 40,000 acres, are lands that were homesteaded. Land that had been owned by California was granted to the United States for disposition under the reclamation and homesteading laws by state legislation adopted in 1905 and homesteaders settled these lands. Homesteading of the current Federal Lease Lands was precluded by the 1964 Kuchel Act. In addition to the Federal Lease Lands, the Public Lands include certain areas utilized by the U.S. Fish and Wildlife Service in farming and other uses.

TID charges landowners for the operation and maintenance of Klamath Project facilities. Landowners are required to pay their annual assessments whether or not they receive water.

Crops Grown in TID

Crops produced in TID in recent years have included potatoes, grains (such as wheat, barley, oats, rye), alfalfa, pasture, grasses, horseradish, onions, mint, peas, sugar beets, garlic, asparagus, carrots, strawberries, trees, vegetables, fruits and field crops. The total value of agricultural production within the District, including the lease lands, was \$85 million in 2012.

TID Infrastructure

The TID system includes 243 miles of canals and laterals, 334 miles of drains, and 26 miles of dikes. The TID system also includes 36 pumping plants with 65 pump units. There is an ongoing process at improving the overall efficiency of the 'ID water delivery system, which includes 53 automated gates and 17 sites with full telemetry.

TID owns 10 wells that were constructed in 2001 as a means of mitigating for that year's disastrous water curtailment. There are also wells owned by some land-owners. The TID and private wells cannot serve all the demand in TID. Also, use of wells greatly increases operation costs. There has also been a lowering of ground-water levels in the Klamath Project area, as groundwater is increasingly relied upon by irrigators to replace the once-steady surface water supplies that have been redirected in the past decade to meet fish requirements recommended by federal agencies. In 2010, the city of Merrill ran out of water due to lowered groundwater levels.

Lease Lands

A portion of the land served by TID is known as the "lease lands." Lease lands are owned by the United States but farmed and irrigated by individual water users. TID delivers water to the lease lands through the TID system. The lease lands are lands that were ceded to the United States for reclamation purposes. Other ceded lands were homesteaded. The lease lands remained in federal ownership. The lease lands are within both TID and the Tule Lake National Wildlife Refuge (TLNWR).

Impacts of Water Supply Uncertainty

In some past years, there has been inadequate water supply from the Klamath system to meet demand within the Klamath Project that relies on Klamath water. In recent years the available supply was inadequate in 1992, 1994, 2000, 2001, 2008, 2009, 2010, and 2012, and will be inadequate in 2013. The shortages vary in magnitude.

In addition to adverse effects on the water users TID serves, water shortages also have adverse effects on TID itself. For example, in 2001 when there was extremely little water available, dikes and canal banks formed stress fractures and cracked with no water in the system. Also, no seasonal employees were hired that year. TID also receives reduced revenue from the lease lands if water supplies are short. Landowners have difficulty paying their assessments also, which creates a variety of problems.

The gross "lease revenues" (or rent) for the lease lands in TID are related to water availability. In 2001, water was essentially unavailable and the land was leased for \$1 per acre. In 2010, water availability was very limited and the gross lease revenues were less than \$1 million. In 2011, the gross lease revenues were \$3.4 million and in 2012 the gross lease revenues were \$3.8 million. The net lease revenue is usually about \$.5 million less than the gross lease revenue. Under the TID contract, TID is entitled to receive 10 percent of the net lease revenues. Local counties receive 25 percent of the net lease revenues. The value of crop production on the lease lands within TID was \$27.7 million in 2011 and \$24.5 million in 2012.

Historic Low-Cost of Klamath Irrigation Project Power

The Bureau of Reclamation's Klamath Irrigation Project is unique and has had a longstanding relationship with PacifiCorp's Hydroelectric Project. Early plans for the Klamath Project contemplated the development of power by the Bureau of Reclamation for use in the Klamath Project. In 1917, PacifiCorp's predecessor entered an agreement by which it constructed Link River Dam and agreed to sell power at low cost to irrigators and Reclamation in lieu of Reclamation developing power on the river. In the 1950s, when PacifiCorp's predecessor sought a Federal Energy Regulatory Commission (FERC) license for PacifiCorp's hydroelectric project including the planned J.C. Boyle facility, Reclamation initially voiced objection that the license would preclude development of low-cost federal power to benefit the Klamath Project. This concern was resolved through a license term requiring extension of the 1917 contract including its power terms, for at least the term of the FERC license. (PacifiCorp's predecessor entered a similar contract to provide low-cost power to Off-Project irrigators in Oregon.) The long relationship was reflected and codified in the Klamath River Basin Compact enacted by California and Oregon, and ratified by Congress, in 1957, which provides that it is the objective of the states, in connection with the development of hydroelectric resources on the Klamath River "to secure . . . the lowest power rates which may be reasonable for irrigation and drainage pumping, including pumping from wells."

drainage pumping, including pumping from wells."

The FERC license issued to PacifiCorp in the 1950s has expired, but is automatically renewed for one-year terms pursuant to the Federal Power Act. The historic power contract is not part of the annual renewals. In the meantime, the FERC relicensing process has been affected by settlement agreements that have been developed including the Klamath Basin Restoration Agreement (KBRA) and companion Klamath Hydroelectric Settlement Agreement (KHSA).

In other Reclamation Projects, low costs "reserved" or "project use" power is made available for certain loads. Also, many irrigators in the PacifiCorp Northwest have access to Bonneville Power Administration (BPA) power or similar alternatives

through PUDs or similar entities. These types of arrangements were neither necessary nor pursued in the history of the Klamath Project due to the long-standing

relationship with the hydroelectric project.

The plumbing of the Klamath Project is also unique; low cost power is a part of its infrastructure. A significant portion of the power goes to recirculate water (achieving efficiencies), to provide water to national wildlife refuges, to pump water back into the Klamath River for use by fish, and to operate pressurized sprinkler systems that use less water than flood irrigation. These pumping operations are essential for water efficiency and successful pursuit of other components of the Power for Water Management Program.

Dramatic Rising Power Rates and Related Impacts

TID has been severely impacted by the increase in power rates that have occurred since the FERC license expired. Between 2006 and 2011, our annual power costs associated with our pumping infrastructure dramatically increased. Due to conservation efforts, our power usage has decreased by about 50 percent since the period prior to 2006, yet our total cost of power has increased from \$42,620 in 2005, to \$625,897 in 2011. This drastic increase in total cost is due to an increase of over 2700 percent in the unit price of power.

That would be similar to a homeowner's average power bill going from \$43 per

month to \$1,252 per month in a six-year period.

Already, TID, faced with considerable power cost increases, has undertaken Already, TID, faced with considerable power cost increases, has undertaken changes in water management practices that could reduce historic water efficiencies. Dramatically increased power costs also threaten the viability of some operations, including the critical role of "D" Plant, which moves water from Tule Lake to the Lower Klamath National Wildlife Refuge. The annual pumping costs associated with "D" Plant alone have increased from \$28,129 in 2005 to \$211,355 in 2011 with roughly a 70 percent reduction in power usage. These rising costs have forced TID to take measures to minimize "D" Plant operation, which has resulted in less water moving into Lower Klamath NWR in recent years.

KBRA Solution to the Klamath Project Water Challenge

The KBRA contains provisions for local irrigation districts, including TID, to develop and implement an "On-Project Plan" (OPP). The purpose of the OPP is to align water supply and demand in areas of the Klamath Project that rely on the Klamath system (Lake and River) for water supply. This would be accomplished by Project districts, for the first time ever, having a known block of water available each year. The plan will also take into account water delivery obligations for National Wildlife Refuges. The overriding principals/goals of the OPP are that the plan be developed by irrigators and that no irrigator or district in the Project suffers involuntary water shortages, as has happened in the past. The OPP will likely employ a variety of tools in order to address variability in available water supply so that irrigators in the Project can "live with" the available water supply including any limits on that supply in the future.

The KBRA describes certain agreed upon "Diversion Limits" for water diverted from Upper Klamath Lake and the Klamath River for the Klamath Project and refuges. The OPP is needed to ensure a reliable water supply for the sustainability of agriculture in the Klamath Basin. Beyond the scope of the KBRA, the challenges of meeting water needs during dry years for agriculture, endangered and special status species, and wildlife refuges in the Klamath Basin have become monumental

and are unlikely to change.

While "water banks" (which consist primarily of additional groundwater pumping) have partially addressed the imbalance of supply and demand in the Basin, there is no simple answer for achieving balance and mitigating the disastrous impacts that water shortages impart on our local economy and infrastructure. Instead of relying on Federal agencies to develop a plan to deal with variable water supply, it makes sense that the irrigation community develops its own plan.

KBRA Solution to the Klamath Project Power Challenge

Stabilizing power costs is an important component of the KBRA. The KBRA programs include the Power for Water Management Program, which also relates conservation elements of the KBRA. The KBRA power program also addresses similar interests of irrigators in the Upper Klamath Basin who operate outside the Klamath Project (Off-Project irrigators).

Section 17 of the KBRA, complemented by Section 5 of the KHSA, states the Power for Water Management Program as related to the Klamath Project and Off-Project agriculture. The Program consists of three elements developed around a delivered power cost target "at or below the average cost for similarly situated Reclamation irrigation and drainage projects in the surrounding area." The composition

and cost of those programs are interrelated.

First, for the short-term, funding is provided to stabilize total power costs as other

components of the program are brought on line.

Second, power generated at other Bureau of Reclamation facilities would address the program objectives in part. Power can, for example, be marketed by the BPA to serve eligible loads in the upper Klamath Basin in Oregon. Under the KBRA and KHSA, Reclamation commits to acquire a contract consistent with applicable law and standards of service to serve eligible loads, PacifiCorp agrees to cooperate in delivery of power to the loads, and all parties support this undertaking. The KBRA provides for funding of \$1 million over four years for technical work and analysis necessary for contracting and development of transmission and delivery arrangements. The availability of some federally generated power should incrementally assist in meeting low power cost objectives, and would be supplemented by the renewables element of the overall Power for Water Management Program, which is discussed below

Third, funding would be provided for energy efficient/conservation and renewable generation opportunities and investment. The activities to be pursued could include installation of efficiency measures, such as additional improvements in water pumping and piping efficiency, solar photovoltaic development and net metering programs, investment in renewable generation on a broader scale, and other practices. Settlement parties, with expert assistance provided by the State of Oregon and the Bureau of Reclamation, worked diligently to evaluate alternatives that would leverage expenditures through tax credits and available regulatory programs. The KBRA age expenditures through tax credits and available regulatory programs. The Koral also contemplates the potential development of joint projects with the Klamath Tribes and irrigators under the umbrella of the renewable energy element. As with other elements, the benefits and objectives of this element are designed to serve both irrigation interests inside the Klamath Project and the Off-Project area in the Upper Klamath Basin.

Developing a collaborative settlement to the Klamath River watershed challenges was initiated by the Bush Administration, and strongly supported by former Interior Secretary Salazar when President Obama was handed the issue. Now, we need similar bipartisan support in Congress to lead to eventual implementation.

It defies common sense why some critics of the Settlement Agreements believe we should tear them up and start over. We hope that these critics are prepared to offer

alternative, realistic solutions—now.

It is time for Congress to start moving authorization of the Agreements.

Thank you for this opportunity to present testimony to you.

Statement of Luke Robison, Manager, Malin and Shasta View Irrigation Districts, Malin, OR

On behalf of the Malin Irrigation District (Malin ID) and the Shasta View District (Shasta View ID), I appreciate the opportunity to present written testimony for the record of this very important oversight hearing. My name is Luke Robison, and I am the manager of both districts. I also serve as an alternate director on the board of the Klamath Water Users Association.

My district is proud to be one of the parties signed on in support of the Klamath Settlement Agreements, including the Klamath Basin Restoration Agreement (KBRA). Admittedly, the KBRA is not the perfect answer to the challenges facing the Klamath River watershed. However, we believe the KBRA is the most viable solution to a complex set of issues that face the people of the Klamath Basin.

In the past ten years, local water users—both within the Klamath Project and those who farm in upstream areas north of Upper Klamath Lake—have taken proactive steps to protect and enhance water supplies, enhance the environment, and stabilize the agricultural economy. The impacts of the 2001 decision to withhold irrigation supplies underscored the vital linkage that exists between irrigated farmland and wildlife. Water that would normally flow through Klamath Project farmland habitat was directed instead towards increasing instream water levels for three species protected under the Endangered Species Act (ESA). The vitality of over 400 other wildlife species was threatened when they were subjected to the same fate as local farmers: no water, dry watercourses, drastically altered vegetation, parched land and dust

Our pioneering heritage is based upon common sense and harmony with our environment and our community. The simple fact is that there was no common sense or harmony in 2001 during the water shut off, or after the 2002 die-off of fish near the mouth of the Klamath River. It took a lot of tenacity for the major stakeholder from all areas of our watershed to put hard feelings aside and agree to work together to find a better way of life for all interests who rely on the river. Thus, the KBRA was born.

I applaud the Committee for conducting this important hearing at such a critical time. Once again, we are facing yet another water crisis in the Upper Klamath

Basin this year.

The KBRA can help prevent a repeat of this year's crisis. However, Congressional action is required to fully enable it and the Klamath Hydropower Agreement. This is both reasonable and appropriate since the federal government has played a central role in virtually every major water management decision in this basin and the locally-crafted consensus approach embodied by the accords came about at the urging of Congress.

Shasta View and Malin Irrigation Districts: Background

Shasta View ID and Malin ID derive their water from the Klamath Irrigation Project, which draws its source water from Upper Klamath Lake, the Klamath River, and the Lost River systems. Shasta View ID serves 5,000 acres, while Malin ID serves 3,400 acres near the community of Malin, Oregon. Key crops grown include potatoes, alfalfa, garlic, sunflowers, mint, strawberries, and grain. Shasta View ID has an underground pressurized water delivery system, while Malin water is delivered primarily by gravity, through an open channel delivery network.

Recent Changes in Klamath Project Water Management

For most of the last century, Klamath Project irrigation supplies proved sufficient to meet the needs of our district's farm families. Although there were years where Mother Nature and Klamath Project storage capacity proved insufficient to meet full irrigation demands, the local community managed to stretch thin supplies and make things work. That all changed in the early 1990s, when steadily more restrictive government agency decisions made to meet Endangered Species Act (ESA) goals began to steadily chip away at the stored water supply originally developed for irrigation.

Two sucker species were listed (1988) as endangered and coho salmon were listed (1997) as threatened under the ESA. Since then, biological opinions rendered by the U.S. Fish and Wildlife Service (for the suckers) and NOAA Fisheries (for the coho), have emphasized the reallocation of Project water as the sole means of avoiding jeopardizing these fish. Klamath Project "operations plans" based on these biological opinions also factor in tribal trust obligations, although the nature and extent of such obligations is undefined.

The net result of increasing restrictions on other Klamath Project water users was fully realized on April 6, 2001, when Reclamation announced its water allocation for the Project after U.S. Fish and Wildlife Service and NOAA Fisheries officials finalized the biological opinions (BOs) for project operations in a critically dry year. Based on those regulatory actions, Reclamation announced that—for the first time in Project's 95-year history—no water would be available from Upper Klamath Lake to supply Project irrigators.

The resulting impacts to our local community were immediate and far-reaching. Even with a later release of a small percentage of needed water over a 30-day period in July and August 2001, thousands of acres of valuable farmland were left without water. In addition to harming those property owners, managers, and workers, also imparted an economic "ripple" effect through the broader community. The wildlife benefits provided by those farms—particularly the food provided for area waterfowl—were also lost with the water.

The local farming community took years to recover from the April 6, 2001 decision, and severe business losses echoed the hardship endured by farmers and farm employees. As farmers and laborers attempted to deal with the loss of jobs, a year's income, and in some cases the land itself, referrals for mental health counseling in-

creased dramatically.

Because of the heated controversy over the federal government's decision to eliminate water deliveries to the Klamath Project in 2001, the National Academy of Science (NAS) was asked by the Department of the Interior and Department of Commerce to "evaluate the strength of scientific support for the biological assessments and biological opinions on the three listed species, and to identify requirements for recovery of the species". Although the NAS Klamath committee agreed with many of the agencies' decisions, after extensive review, they ultimately concluded that there was insufficient scientific support for the argument of high lake levels for suckers (Upper Klamath Lake) and high Klamath River releases from Iron

Gate Dam for coho. Notably, the peer review committee members were unanimous in their conclusions on both biological opinions.

Nevertheless, increased downstream releases into the Klamath River and elevated lake levels in Upper Klamath Lake in the past 13 years have formed the foundation of recent Klamath River management by the federal government.

Impacts Due to Water Supply Uncertainty and Rising Power Costs

The 2001 Klamath Basin water crisis dramatically affected the Malin community, resulting in the closure of the town's only gas station and auto repair shop. The hardware store reported \$150,000 in lost sales, and a local restaurant also suffered, and eventually closed.

Before 2001, the Klamath Basin had 30,000 acres in potatoes. Now, the acres planted in potatoes are only 11,000. The number of potato packing sheds dropped from 23 to 9. Of those, three are in Malin.

It is nearly impossible to describe 2001 and the harsh impacts that resulted from the immediate loss of farm income. Some farmers went broke, while others were forced to retire. Farm jobs were lost. Dust blew across the fields and through our

community all summer and once-productive farmland was overtaken by weeds.

Things were not much better in 2010, when sixty-two landowners in the Shasta View ID went without Upper Klamath Lake surface water and voluntarily participated in a land idling program that paid landowners not to irrigate. Many fields and farmlands went dry as a result, and the farmland that did not have access to groundwater produced no crops that year. Several of our potato growers, under contract to supply potato chip manufacturers, had to find other lands in neighboring communities to grow, or risk losing their contracts.

A significant amount of the acres grown in both districts are permanent crops. With the current uncertain water delivery status, this can be risky and costly at times, since money must be invested prior to knowing what our water supply will be. It can sometimes take up to three years before a permanent crop actually re-

turns invested money back to the family farm.

Delayed delivery of water to our row crops can also be detrimental to our growers, due to the location of our districts, near the tail-end of the Klamath Project delivery system. By the time water gets to one of my district farmers, his crops have already taken a hit from lack of water. He and his neighbors deserve a return to the reliable water supplies that originally drew them to our area.

Potatoes grown for chips are a major crop in the two district service areas. Withwater in the September- November time frame, these crops cannot be harvested. Walker Brothers Farms is a family owned, large employer in this area.

That business would not be able to continue without water.

In addition to water supply uncertainty in recent years, Shasta View and Malin Irrigation Districts have seen unprecedented power rate increases in the past six years, due to the expiration of a long-term power agreement with Pacific Power that local farmers and ranchers enjoyed for the previous 50 years. In 2005, Shasta View Irrigation District, which provides piped, pressurized water to our farms, spent \$35,000 on power costs. This year, we budgeted \$500,000 to cover those costs. Malin Irrigation District pumps its water out of the Klamath Project canal system into a gravity-fed canal system. From there, individual farmers pump the water from the canal on to their fields. In 2005, Malin ID spent approximately \$13,000 on pumping costs. This year, we budgeted \$112,000 for the same line item. These costs are passed on to the farmers, who also have to pay for their own individual on-property pumping costs.

Farmers in both districts are paying well over 10 times what they were paying in 2005. This is a very serious challenge that is shared by other Klamath Project irrigators in Oregon and California.

The Solution: Klamath Basin Settlement Agreements

The Klamath Settlement Agreements will help stabilize power costs and improve

water supply certainty for both Malin and Shasta View Irrigation Districts.

The KBRA contains provisions for local irrigation districts, including TID, to develop and implement an "On-Project Plan" (OPP). The purpose of the OPP is to align water supply and demand in areas of the Klamath Reclamation Project that

rely on the Klamath system (Lake and River) for water supply.

I am actively involved with the development of the OPP and I am confident that it will improve water supply predictability. Under the KBRA and OPP, by early March, every farmer should know what the Project's water allotment from the Klamath system will be, which is a great improvement in certainty for water users. In almost every year, a determination of how much water will be made available will be made in early March by applying criteria in the KBRA. Studies estimate that surface water alone should meet the Project irrigation demand in at least 50 percent of the years. For those drier years, the OPP will align supply and demand,

through physical facilities, voluntary arrangements, or both.

The OPP provides an opportunity for Klamath Project irrigators to move from a "reactive" mode, focused on addressing regulatory concerns, to a strategic mode that provides a defensible road map for accommodating variations in Klamath River water supply. This will support and promote viable Project agriculture in the Basin, which in turn will boost the local economy and the environment. The OPP is intended to provide predictable and reliable water supplies, albeit with limitations (which should be manageable) on the total amount of Klamath River water avail-

able, particularly in the drier years.

Stabilizing power costs is also an important component of the KBRA, which includes provisions for the Power for Water Management Program. The KBRA power program addresses similar interests of irrigators in the Upper Klamath Basin who operate outside the Klamath Reclamation Project (Off-Project irrigators). The Program consists of three elements developed around a delivered power cost target "at or below the average cost for similarly situated Reclamation irrigation and drainage projects in the surrounding area." The composition and cost of those programs are

interrelated.

Conclusions

If the KBRA is not implemented, the status quo—rooted in regulatory uncertainty—remains, with potentially greater risk to Shasta View and Malin ID water users. The irrigation districts and their water users will be left with (a) addressing ESA issues year to year, likely through conflict and litigation, as they have in the past; and (b) exposure to greater uncertainty with respect to future effect of tribal rights and claims; and (c) potentially crippling power bills.

We specifically sek that Congress ion us in finding the most viable means to

We specifically ask that Congress join us in finding the most viable means to fund, authorize, and otherwise support solutions that decisively overcome the decisions of the past that created today's crisis, and help us enact what we believe to be the fairest, most cost-effective, and fastest path to sharing the basin's water resources. The Settlement Agreements represent years of intense negotiations between the federal government, two states, three tribes, a power utility, and agricultural, conservation and fishing interests. The Agreements are complete, and represent the one true, comprehensive plan that can be implemented now, with Congressional support. We cannot afford to have a repeat of this year anytime soon.

In short, I ask for this Committee's assistance in crafting legislation to enact the

Klamath Settlement Agreements.

Again, I would like to thank the Committee for taking the time to hear testimony on this topic, which is vitally important for every resident of the Klamath River watershed.

STATEMENT OF STEVE KANDRA, PRESIDENT, WESTSIDE IMPROVEMENT DISTRICT, Tulelake, CA

On behalf of the Westside Improvement District (Westside), I appreciate the opportunity to present written testimony for the record of this very important oversight hearing. My name is Steve Kandra, and I am now and have been since 1985, sight hearing. My hame is Steve Kandra, and I am now and nave been since 1955, the President of Westside. I am intimately familiar with the operations of Westside and, generally, with the Klamath Irrigation Project (Klamath Project). My responsibilities include overseeing all irrigation and drainage functions of Westside, record-keeping, and reporting to and advising Westside's Board of Directors.

We commend the Committee's leadership in providing this oversight hearing. The timing of this is critical, given that we are facing yet another water crisis in the Upper Klamath Basin this year. Unfortunately, the situation in the Klamath has again reached crisis in 2013. The State of Oregon declared a drought in the Upper Klamath because of an unusually low snow pack in the mountains that nourish the basin. With recent completion of the 38-year process that determined water rights in the basin's headwaters, those with junior water rights are virtually certain to see their water shut off this summer. The threat of community conflict this summer, even violence, is sadly very real.

For these reasons and many more, Westside supports the Klamath Settlement Agreements (Agreements). Three years ago, weary from decades of seemingly endless litigation and rotating crises, an unlikely coalition of farmers, fisherman, tribes, and environmentalists, along with private dam-owner PacifiCorp and government representatives, signed the Klamath Settlement Agreements in 2010. These Agreements, supported by the majority of basin interests who depend upon surface water, offer balanced solutions for realizing better water certainty and water sharing across all interests, restoring imperiled fish and wildlife, and sustaining a strong natural resource-based economy in the region. The parties to these accords put aside their own ideology and vision of the perfect outcome to embrace a collaborative path they believe is in the best long-term interest of the entire basin.

The Agreements can help prevent a repeat of this year's crisis; however, Congressional action is required to fully enable them. This is both reasonable and appropriate since the federal government has played a central role in virtually every major water management decision in this basin and the locally-crafted consensus approach embodied by the accords came about at the urging of Congress.

Westside Improvement District: Background

Westside—created in 1934—is a California improvement district organized and existing under the California Water Code.—The District is located in Siskiyou County, California, and is adjacent to Tulelake National Wildlife Refuge. Westside receives water from facilities operated and maintained by Tulelake Irrigation District, which convey irrigation water for beneficial use to water users on approximately 1,190 acres of high-value agricultural land within the boundaries of Westside. Westside's farmers grow alfalfa, wheat, mint, sunflowers, potatoes (Russets and chippers) and onions.

All of the lands presently within Westside were part of lake bottom ceded to the United States by the State of California in 1905 for the construction of the Klamath Irrigation Project. On October 20, 1936 these lands were conveyed to the Colonial Realty Company (Colonial) by patent as part of a land exchange between Colonial and the United States. Colonial thereafter sold this land to farmers.

Once the Klamath Project construction had begun, Westside landowners began filing water right applications for delivery of water from the Klamath Project. Today, Tulelake Irrigation District (TID) delivers water to lands within the Westside that are also within TID under what are know as Warrant Act contracts.

Westside Improvement District Environmental Initiatives

My district has a well-established record for finding ways to enhance the symbiotic relationship that exists between the environment we work in and the land that supports the food we produce. In Westside, 18 percent of the District is dedicated to long term wildlife enhancement projects. The farmlands within the District experience significant Pacific Flyway waterfowl usage during Spring and Fall migra-

In 2004, Westside Improvement District landowners partnered up with USFWS, Reclamation, TID, and others to design and construct a water treatment marsh that treats the drainage return flows from the District to improve water quality in Tule

Lake. The treatment marsh became functional in 2012.

Landowners also participate in "walking wetlands" program in cooperation with the Klamath Basin National Wildlife Refuges. In order to reduce pesticide use on the National Wildlife Refuge and reduce risks to Refuge fish and wildlife, the U.S. Fish and Wildlife Service in cooperation with the Bureau of Reclamation and local farmers created an Integrated Pesticide Management (IPM) Plan in 1997. In developing the plan, it was felt that periodic flooding of agricultural lands would be a key IPM technique for suppressing plant parasitic nematodes as well as a host of other soils diseases and pests. This is a management plan that rotates blocks of farmland with flooded wetlands.

In participating in the Refuge's wetland/cropianu program, growth that following wetland cycles, no soil fumigants are required at a savings of up to \$200/acre. In addition, yields of some crops have increased up to 25 percent. value of these benefits is apparent in recent lease rentals which are nearly twice those of adjacent conventionally farmed fields. In addition, several Refuge farmers have discovered that the soil pest and disease control function of wetlands is sufficient to allow for organic crop production. Based on increasing demand for organic acreage on the refuge, this program continues to expand.

One of the primary reasons for implementing an integrated program of wetlands and croplands was to enhance wildlife values with an emphasis on waterfowl and the diversity and abundance of other wetland wildlife species.

As a result of cooperative wetland restoration and enhancement programs, water-fowl use of Tule Lake NWR has increased to levels not seen in over 25 years.

Westside Water Supplies: Before and After 2001

Westside receives its water from the Klamath River system and the Lost River/ Tule Lake, which are all regulated for endangered fish species by U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). The inclusion of two endangered sucker fish species and the threatened coho salmon on the Endangered Species Act list fundamentally changed how our water was man-

aged, starting in the late 1990's.
Prior to 2001, Westside landowners always received all the water they could beneficially use (with minor exceptions in the drought years of 1992 and 1994). Westside farmers would, again, in 2001 have received all the water they could have beneficially used if Reclamation had been able to operate under historical practices as originally intended. In February 2001, Reclamation issued a biological assessment with respect to the operation of the Klamath Project, proposing to deliver water to Klamath Project irrigators and wildlife refuges, in accordance with historical practice. Reclamation, however, directed irrigation water users not to take water until

USFWS and NMFS had completed their biological opinions.
On April 6, 2001, the NMFS and USFWS issued their biological opinions with respect to the operation of the Klamath Project on coho salmon and suckers, respectively. Each found that the proposed action of water delivery was likely to jeopardize the continued existence of the species. Throughout the 2001 irrigation season, Upper Klamath Lake contained large quantities of water that should have been released to Klamath Project water users. Constrained by the biological opinions, however, Reclamation always kept the Upper Klamath Lake level between 4,143.3 and 4,139.5 feet above sea level, rather than drawing it down to 4,137 feet above sea level or lower as in prior years. Further, Reclamation released flows down the Klamath River as required by the NMFS biological opinion much larger than the historical practice. Had Reclamation managed Lake levels and downstream flows according to historic practices, Klamath Project water users would have received sufficient water to grow their crops.

Because of the heated controversy over the federal government's decision to eliminate water deliveries to the Klamath Project in 2001, the National Academy of Science (NAS) was asked by the Department of the Interior and Department of Commerce to "evaluate the strength of scientific support for the biological assesscommerce to evaluate the strength of scientific support for the biological assessments and biological opinions on the three listed species, and to identify requirements for recovery of the species". Although the NAS Klamath committee agreed with many of the agencies' decisions, after extensive review, they ultimately concluded that there was insufficient scientific support for the argument of high lake levels for suckers (Upper Klamath Lake) and high Klamath River releases from Iron Gate Dam for coho. Notably, the peer review committee members were unanimous in their conclusions on both highgrical envisions.

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Nevertheless, increased downstream releases into the Klamath River and elevated lake levels in Upper Klamath Lake in the past 13 years have formed the foundation

of recent Klamath River management by the federal government.

In the years following 2001 and currently, Klamath Project annual operations are characterized by uncertainty. As things stand, irrigators may not know what their water supply will be until April (or June, as was the case this year), and uncertainty can persist through the season. This makes planning for the growing season very difficult. Further, if there is a water shortage, it is not allocated according to any particular plan or logic (other than contractual priorities that the Bureau of Reclamation has identified). Finally, for over a decade, local water users have spent significant time and financial resources monitoring and challenging annual Klamath Project operations plans influenced by agency biological opinions.

Importance of Affordable Power

Westside Improvement District could also be viewed as a "drainage" district, since the farmlands have been reclaimed from Tule Lake and are protected by 4 miles of levees and 6 miles of drains. The cost of energy for drainage pumping is a significant portion of operations costs for the District, having increased nearly 2,000 percent since 2006. This is a critical matter, since we need to pump to avoid flooding, and it is becoming increasingly expensive to do so.

How the Klamath Settlement Agreements Help Westside Farmers

The Settlement Agreements will help stabilize power costs and improve water supply certainty for Westside Improvement District.

The Klamath Basin Restoration Agreement (KBRA) contains provisions for local irrigation districts, including TID, to develop and implement an "On-Project Plan" (OPP). The purpose of the OPP is to align water supply and demand in areas of the Klamath Reclamation Project that rely on the Klamath system (Lake and River)

I am confident that the OPP will improve water supply predictability. Under the KBRA and OPP, by early March, every farmer should know what the Project's water allotment from the Klamath system will be, which is a great improvement in certainty for water users. In almost every year, a determination of how much water will be made available will be made in early March by applying criteria in the KBRA. Studies estimate that surface water alone should meet the Project irrigation demand in at least 50 percent of the years. For those drier years, the OPP will align supply and demand, through physical facilities, voluntary arrangements, or both.

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The OPP provides an opportunity for Klamath Project irrigators to move from a "reactive" mode, focused on addressing regulatory concerns, to a strategic mode that provides a defensible road map for accommodating variations in Klamath River water supply. This will support and promote viable Project agriculture in the Basin, which in turn will boost the local economy and the environment. The OPP is intended to provide predictable and reliable water supplies, albeit with limitations (which should be manageable) on the total amount of Klamath River water avail-

Stabilizing power costs is also an important component of the KBRA. Programs proposed in the KBRA include the Power for Water Management Program, which also relates conservation elements of the KBRA. The KBRA power program addresses similar interests of irrigators in the Upper Klamath Basin who operate outside the Klamath Reclamation Project (Off-Project irrigators). The Program consists of three elements developed around a delivered power cost target "at or below the average cost for similarly situated Reclamation irrigation and drainage projects in the surrounding area." The composition and cost of those programs are interrelated.

Conclusions

Our farms provide high value, high productivity crops that contribute to our local economy and the overall health of the nation. Benefits provided by irrigated agriculture—consisting of the direct crop production, agricultural services, and the food processing and packaging sectors—is one of the largest job providers and economic engines in the West. A recent study released by Dr. Darryl Olsen of the Pacific Northwest Project determined that Western irrigated agriculture creates a total annual national economic benefit valued at \$128 billion in 2010 dollars.

Our farms also provide significant wildlife values that must be protected. We need to find constructive and meaningful ways to proactively address the Endangered Species Act and the Clean Water Act. And, we need affordable energy for drainage vital to prevent flooding

vital to prevent flooding.

We specifically ask that Congress join us in finding the most viable means to fund, authorize, and otherwise support solutions that decisively overcome the decisions of the past that created today's crisis, and help us enact what we believe to be the fairest, most cost-effective, and fastest path to sharing the basin's water resources. The Settlement Agreements represent years of intense negotiations between the federal government, two states, three tribes, a power utility, and agricultural, conservation and fishing interests. The Agreements are complete, and represent the one true, comprehensive plan that can implemented now, with Congressional support. We cannot afford to have a repeat of this year anytime soon.

In short, I ask for this Committee's assistance in crafting legislation to enact the Klamath Settlement Agreements.

Again, I would like to thank Chairman Wyden, Ranking Member Murkowski, and the entire Committee for taking the time to hear testimony on this issue which is vitally important to every resident of the Klamath River watershed.

Hoopa Valley Tribal Council, Hoopa, CA, June 18, 2013.

Hon. MICHAEL L. CONNOR,

Commissioner of Reclamation, United States Department of the Interior, Washington, DC.

DEAR COMISSIONER CONNOR:

The referenced letter recently came to our attention and raises a number of issues that bear on the protections required in reclamation law, federal Indian law, and the 2000 Trinity River Mainstem Fishery Restoration Record of Decision (ROD). The positions taken in the letter bear directly and adversely on the Hoopa Valley Tribe's rights and interests in the Klamath/Trinity River fishery. The letter confirms our long-held suspicion that the Central Valley contractors will never accept the Law of the Trinity River (the statutes, permits, regulations, judicial decisions, agreements and administrative decisions that govern the use of Trinity River water.) unless the Secretary acts decisively to dismiss their contentions and use her authority to require the contractors' to comply with these authorities.

We intend to confer with you about this subject in our meeting on June 20. In the meantime we request that the Department provide an opportunity for a Government-to-Government consultation about the preparation of any response the Bureau intends to make to the San Luis & Delta Mendota Water Authority and the water

and power contractors who joined in their May 31 letter.

We note that on page 6, the May 31 letter states that the Bureau had assured the contractors in 2012 that they would be made whole in the event Trinity Division water was used in late summer in excess of the ROD flow releases to protect fish in the lower Klamath River. If such an assurance was made, it appears to us to have been unlawful because it would upend the priority for protection of in-basin uses over out-of-basin diversions.

Sincerely,

LEONARD E. MASTEN, JR., Chairman.

U.S. House of Representative, Committee on Natural Resourses, June 19, 2013.

Hon. RON WYDEN,

Chairman, Senate Committee on Energy and Natural Resources, 304 Dirksen Senate Building, Washington, DC.

DEAR CHAIRMAN WYDEN.

I am writing to express my support for your June 201 h hearing on "Water Resources Issues in the Klamath River Basin" and to recognize what an important milestone a Congressional hearing on these issues is for residents of the Klamath

Diverse agricultural, tribal, and environmental interests have been at the forefront of water conflicts in the Klamath Basin for decades. Events since 2001 however, including water shortages for agricultural uses and a devastating fish kill, brought tensions between these groups to a head. Seeking to end decades of conflict in this region, more than forty signatories—including Indian tribes, the dam owner itself, PacifiCorp, the states of California and Oregon, downstream interests, Humboldt County, and upstream irrigators—negotiated and signed the Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement (KHSA)

The parties to the KBRA and KHSA are already implementing the actions that are possible under existing authorities. However, as you know, Congressional action is required to move forward with a number of the important actions included in the

Removing the four dams enumerated in the KHSA and restoring a healthy, thriving Klamath River should be a goal of this Congress, and I am conunitted to supporting that goal in any way I can. Thank you again for your initiative in bringing these diverse parties to a Congressional hearing to articulate the critical situation in the Klamath Basin and the need for further Congressional action on these issues. Sincerely,

JARED HUFFMAN, Member of Congress.