Statement of Sue Ellen Wooldridge  
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on  
Water Management and Endangered Species Issues in the Klamath Basin  
before the Committee on Resources, U.S. House of Representatives  
Klamath Falls, Oregon  
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Thank you for the invitation to participate today in this oversight hearing on the Endangered Species Act and Water Management in the Klamath Basin. I appreciate the opportunity to be here today on behalf of the Department of the Interior. I have with me representatives of the Bureau of Reclamation, the Bureau of Indian Affairs, the Fish and Wildlife Service, the U.S. Geological Survey, and Secretary’s Indian Water Rights Office, and the National Oceanic and Atmospheric Administration within the Department of Commerce. They are here to assist in responding to specific questions you may have. I will make some brief oral comments but I request that my entire written statement be included in the record of this hearing.

MY VISIT TO KLAMATH BASIN AND WHAT WE HAVE LEARNED

Last month, I and other administration representatives spent several days and evenings traveling the length of the Klamath Basin. Our intention was to meet with as many individuals and groups as possible to learn first-hand the circumstances faced by the Basin, the perceived needs of the Basin as understood by the various groups, and the effects, both existing and potential, that the Federal Government has had and will have on the Basin.

We met with farmers and ranchers whose lands are above Upper Klamath Lake, farmers who have lands within the Bureau of Reclamation project area, leaders from the Klamath, Yurok, Hoopa Valley, and Karuk tribes, with Federal, state, city and county agency and elected officials, environmentalists from a myriad of organizations, school administrators, business people, commercial fishermen, management personnel from PacifiCorp (Scottish Power), as well as interested citizens not belonging to any of those groups. Each person or group described for us in vivid detail the impact that current drought, and the Endangered Species Act and other federal legal requirements were having on their businesses, their families, those they serve, or the interests they wish to protect. I would like to recognize and, through this record, thank everyone we met with for their frank and helpful comments.

I was greatly moved by my meetings and pained by stories of the distress of many people here, stories of farms closing operations, fathers moving from families to find work, businesses laying off workers. I was equally moved by a desire to do as much as we can to help and to renew some degree of certainty to lives in this region. I am also painfully aware of limitations brought by a very limited resource and the multiple demands on it, and by the multiple responsibilities of the Department.

Secretary Norton speaks regularly of her 4-C approach to managing the Department of the Interior - COMMUNICATION, CONSULTATION, COOPERATION, and CONSERVATION. To manage resources and our legal responsibilities effectively, we must 1) Communicate a consistent
message; 2) Consult with interested and effected parties; 3) cooperate with local and regional interests; and 4) Conserve our natural and cultural heritage. Our trip was intended to further these principles.

We learned many things. While opinions varied as widely as the subject matter, we did hear a number of common themes.

First, we were told that the Basin needs leadership by the Federal Government to address the conflicts at hand. This was relatively surprising to us, and generally inconsistent with our philosophy that local problems are solved best by local solutions. However, it is also understandable, as there seems to be a Basin-wide view that the Federal Government - including Federal law - is largely responsible for the existing conditions.

These conditions are variously described by the differing groups as including over-allocation of existing water, broken treaty rights, past favor toward agricultural interests, breach of promise to agricultural interests, bad or corrupt science, inadequate funding of water enhancement projects, poor forest and habitat management, overly conservative interpretation of existing resource data, failure to encourage the State of Oregon to address diversions by upper basin water users and general callousness toward the economic and human impacts of resource management decisions.

The second common theme we heard is that immediate drought and financial relief is needed for farmers and the farming communities. As one local leader (Marshall Staunton) described it, the Federal law-mandated cut-off of water to the Klamath Project is a “major human tragedy in the Upper Klamath River Basin.” There are approximately 1,400 farmers in the region, many of them small producers, and agriculture and agriculture-related businesses are substantial factor in the Basin's economy. However, because of the water shortage, many farmers have not been able to plant crops or maintain livestock herds.

Third, we heard that the scientific basis of Federal management decisions must be improved. While I will address this issue in a few moments, it is beyond question that where Federal resource decisions are made, the scientific basis of those decisions should be unassailable as biased or less than the best available science.

Finally, we heard a strong desire for a basin-wide solution which will provide predictability and certainty. This presents both a quandary and an opportunity. There exists in the Basin a wide variety of groups or mechanisms dedicated to solving some part of the Basin’s problems. These include, to name a few, the Upper Klamath Basin (Hatfield) Working Group, the Klamath Watershed Coordination Group, the Oregon Klamath Adjudication Alternative Dispute Resolution process, the Klamath Basin Compact Commission, the Klamath River Basin Fisheries Task Force and most recently, the mediation conducted in conjunction with the Kandra litigation. The quandary is how to utilize these existing forums and groups to achieve solutions. The opportunity is demonstrated by the obvious and overwhelming interest of the people in the Basin to find them.

So, having heard these common themes, what are we doing? First, I will discuss the current situation, then our efforts to date and finally, what we intend to do.
WHERE WE ARE - DROUGHT and ESA

While in this crisis much focus has been on the Endangered Species Act, it should not be forgotten what local residents already know - severe drought conditions are affecting the Basin. Snow water and precipitation amounts for the water year are well below average. Currently, the basin-wide precipitation is one half of normal. Streamflow forecasts are near record low levels. Projected net-inflow to Upper Klamath Lake for the summer is expected to be less than 35 percent of average. Inflow to Gerber and Clear Lake reservoirs has ceased.

The Federal Government has placed the Klamath Basin in “D3” status, which predicts “... damage to crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.” The Governors of Oregon and California and the U.S. Secretary of Agriculture have issued drought declarations for Klamath, Modoc, and Siskiyou counties. In short, this is the worst drought since 1977, and potentially the worst on record.

By law, the Department of the Interior plays several roles in the management of resources in the Klamath Basin. The Bureau of Reclamation (Reclamation) operates the Project, which includes the management of water levels in Upper Klamath Lake and Gerber Reservoir (both in Klamath County, Oregon), as well as Clear Lake Reservoir (in Siskiyou County, California). The Project historically provides water to approximately 210,000 acres of irrigated agriculture and two major portions of the Klamath Basin National Wildlife Refuge complex. The Project also affects flows in the Klamath River through an agreement with PacifiCorp, a hydropower company that operates Link River Dam at the south end of Upper Klamath Lake.

The Secretary has a trust obligation to the Native American Tribes. Four federally-recognized tribes reside in the Klamath Basin—the Klamath Tribes of Oregon and the Hoopa Valley Tribe, the Karuk Tribe, and the Yurok Tribe of California. These Tribes have recognized property interests in the Basin which the United States holds in trust for their behalf and which varies with the individual Tribe and its associated ethnological and legal history. Among other interests, the Klamath Tribes have treaty-protected fishing, hunting, and gathering rights, and the Hoopa Valley and Yurok Tribes also have federally reserved fishing rights in the Klamath Basin. The fishing rights entitle the Tribes to harvest for subsistence, ceremonial, and commercial purposes. The Tribes also have water rights in the Basin necessary to support their resources.

The Fish and Wildlife Service (FWS) operates six National Wildlife Refuges in the Klamath Basin National Wildlife Refuge complex, and the FWS carries out consultations for Federal actions under the Endangered Species Act (ESA) for species listed by the Service. The National Wildlife Refuge (NWR) complex covers more than 150,000 acres. The Lower Klamath NWR is host to the largest fall population of staging waterfowl in the Pacific Flyway (nearly 1.8 million birds), winters the largest concentration of bald eagles (200-900 birds) in the Lower 48 states, and supports 20-30% of the Central Valley population of sandhill cranes during fall migration. In addition, the refuge hosts large numbers of nesting waterbirds and diverse wildlife species. Water for this management program is normally provided through Reclamation facilities.
The Klamath Basin refuge complex annually has over 55,000 visitors for recreation and bird-watching. In addition, there were over 16,000 migratory bird hunters in 1999, a number reduced to 13,000 last year due a short-term water shortage. These visitors provide considerable economic benefits to local businesses. The lack of water this year will force a significant reduction in waterfowl hunting at these refuges, and may lead to a fall-off in other visits as well.

The FWS is also responsible under the Endangered Species Act for the Lost River and shortnose suckers, which occur only in the upper Klamath Basin and are listed as endangered. The National Marine Fisheries Service (NMFS) has the lead ESA responsibility for consultation on the coho salmon which is listed as threatened. These and other fish have supported Tribal fisheries and a large commercial fishery at the mouth of the river; these fisheries have been greatly diminished in recent years.

Several legal mandates affect the management of Project water to meet these multiple needs. Following a review of these various authorities, the Department has managed the Project for the following purposes: 1) species listed under the ESA; 2) Tribal trust responsibilities, 3) irrigated agriculture, and 4) National Wildlife Refuges. This order of priority was confirmed by the Court in *Klamath Water Users Protective Association v. Patterson*.

Under the ESA, the Bureau of Reclamation must consult with its sister agency the FWS and the NMFS regarding impacts of Project operations on endangered suckers and threatened coho salmon. This has been a long and complex process and the subject of much public discussion. On April 5 and on April 6, 2001, the FWS and the NMFS, respectively, provided Reclamation with final Biological Opinions regarding operation of the Klamath Project for the 2001 water year. Reclamation conformed its operations plan to those opinions.

On April 6, 2001, Reclamation announced that with the exception of delivery of 70,000 acre feet for Project irrigated acres on areas served from Clear Lake and Gerber Reservoir, and a certain amount of water to be delivered to Tule Lake Sump for the protection of suckers, no water would be delivered from Upper Klamath Lake for Project operations. Reclamation is unable to operate Upper Klamath Lake this year to provide project water supply for irrigation or for the refuges.

**ASSISTANCE**

Since the Committee will not hear directly from the Department of Agriculture, I will address the immediate efforts undertaken by the Administration to provide what relief is available under current authorizations and appropriations. The Administration and Secretary Veneman are committed to working with Congress to ensure these funds are appropriately invested in the region to assist producers during this difficult time.

*The Administration and the Department of Agriculture*
President Bush requested $20 million in his supplemental budget for the Department of Agriculture to make available financial assistance to eligible producers in the Klamath Basin. This $20 million was proposed to supplement existing assistance already available to help farmers and ranchers adversely affected due to limited water availability in the region. I understand that the House Appropriations Committee has just re-directed this request to cover the release of not less than $20 million from available funds of the Commodity Credit Corporation, in the belief that this may be a more efficient means to provide the funds.

Prevented planting coverage is part of the standard crop insurance contract and is available on insurable crops in the impacted counties, except forage production and nursery. For producers with crops ineligible for coverage through the crop insurance program, USDA’s Non-insured Assistance Program (NAP) provides compensation similar to that available through crop insurance. Crops covered through NAP in the Klamath area include alfalfa hay, onions, mint, horseradish, rye, forage (grazed), forage (production, Oregon only), and various other minor crops.

Through the Emergency Watershed Protection program USDA has allocated $2 million to the basin area for re-seeding efforts, which will help farmers establish vegetative cover with low moisture requirements on lands that they had laid bare in anticipation of planting, reducing wind erosion.

Additionally, USDA’s Farm Service Agency has provided almost $400,000 to help farmers get water for their livestock. Initial allocation for Klamath County, Oregon is $225,000 and $167,000 total for 2 California counties, Modoc and Siskiyou.

**Interior**

A. **Groundwater Supplies:**

1. **Cooperation with State Programs.** The Bureau of Reclamation (Reclamation), in partnership with the Oregon Water Resources Department (ORWD) and the California Department of Water Resources (CDWR) is working to develop groundwater supplies to assist agricultural water users served by the Klamath Project. Reclamation met with high-level policy makers from CDWR and ORWD on May 11, 2001, to coordinate fast-track groundwater development for this year and to develop a longer-term program to use groundwater for drought contingencies and supply augmentation purposes.

Wells in some locations may have to be drilled to a depth of between 700 and 1,000 feet (or greater) to reach the water-bearing volcanic zone, which may exceed $300,000 per well. The potential yield (short-term and long-term) is unknown. Groundwater in the Klamath Basin has never been put to such a test, so the amount of yield that may be sustained is unknown at this time.
California’s Office of Emergency Service is making available up to $5 million to Tule Lake Irrigation District. Wells are anticipated to be on line this year, to help soften the blow, and Reclamation continues to cooperate with state agencies to facilitate construction of wells.

Reclamation is continuing groundwater investigations in both the Oregon and California portions of the Klamath Basin that began with the October 1997 Klamath Basin Water Supply Initiative. Groundwater development holds potential in this area as a supplemental tool to be included for any long-term water management plan, and Reclamation will continue to coordinate with the State governments to further long-term efforts to use groundwater resources to help supplement dry-year needs in the Klamath Basin. While the effort currently under way may generate some supplemental water supplies later this summer, it will likely not generate a fully-developed dry-year supply.

OWRD and USGS are cooperating on a regional ground water study in the Upper Klamath Basin. The study includes agricultural areas in southern Oregon and northern California. Reclamation has provided logistical and financial support to this effort. This regional ground water study will take 4 to 6 years to complete due to the data collection requirements. This study represents the primary effort to determine the amount of groundwater that can be produced on a long-term basis.

2. Reclamation, Groundwater Acquisition. Reclamation has initiated a program to purchase groundwater from willing sellers to augment Klamath Project water supplies during the current irrigation season. Nearly $2.2 million in FY01 in drought funding will be spent on this endeavor. The emphasis is on supporting preventative planting of cover crops to prevent soil erosion. Reclamation has partnered with OWRD to develop up to 60,000 acre-feet of groundwater during this season for stream flow, water quality, and project supply augmentation.

In addition, funding for lining of canals in California and Oregon district will help water conservation for the short and long term.

B. Groundwater in National Wildlife Refuges:

The Fish and Wildlife Service (FWS) is focusing on groundwater development in the Klamath Basin. It is estimated that in the future, refuges will experience conditions wherein 70 percent of the refuge wetlands will be dry 70 percent of the time during fall waterbird migration. Impacts are likely to be felt throughout the Pacific Flyway. To address this situation in the short term, the FWS has commissioned a groundwater study on the Lower Klamath National Wildlife Refuge in California where eleven test wells have been developed. Nine of these wells adjacent to, or on the refuge show promise. Two wells produced geothermal water. The FWS intends to develop 23,000 acre-feet of groundwater, intended for late summer/early fall use, when refuge water supplies are most critical. It may be possible to get one or two wells on-line in time to meet refuge requirements this fall.
The FWS is also considering purchasing an additional well from a private owner, as well as paying for groundwater pumped from another owner. This water will be applied at a rate of 35 acre-feet/day to keep the largest unit from going dry for a 150-day period starting on June 1. Pumping associated with this program is eligible for Reclamation Project power rates.

C. Agency Coordination

Further, with respect to Interior’s efforts, the Secretary has taken the lead in coordinating among Interior, the Department of Agriculture, and the National Oceanic and Atmospheric Administration, and internally, we have formed a working group to explore potential long term solutions and work with the states and with all interested local groups.

SCIENCE

As I stated earlier, we have received much criticism of the science used to support our decisions under the ESA. Specifically, we have been told that the science used was not exposed to a public process nor peer reviewed and thus does not appear credible.

The ESA requires that protection of species be based on the best science available. One does not need to agree or disagree about whether that standard was achieved in order to believe that the process of making ESA determinations should be as transparent as possible. It is vital that Interior and other participants base water and fish decisions on sound science and an objective assessment of what we know and what we don't know.

In our quest for credibility, we cannot ignore the criticisms we receive. In this case, we are mindful that while many of these criticisms relate to the form of the FWS and NMFS Opinions, a number relate to their substance, and thus the quality of the Opinions with respect to their being based on the “best science available.” We agree that not all of the science used for the NMFS opinion for the Coho or the FWS opinion on the suckers has been independently peer reviewed. Where peer reviewed science was available, the Services used it. Where unpublished “gray literature” data was available, the Services used it. The Services believe that the opinions are reasonable and based on the best science available. Unfortunately, the public does not have the additional opinions of scientists with the appearance of independence to confirm this.

In order to address the concerns expressed about the scientific basis for management decisions in the Klamath Basin, the Secretary will direct that the science upon which the FWS Biological Opinion is based, and which exists in the Administrative Record, be subject to an independent scientific review. Such a review is to be conducted by an objective outside scientific body that is widely recognized and has a disciplined scientific review focus. The science underlying the NMFS Biological Opinion will be subject to similar review. In addition, plans already exist to subject the forthcoming DOI commissioned study by Professor Hardy, from Utah State University, to independent peer review. At a minimum, the independent science review body should be asked to:
Building on this scientific assessment—as part of Interior’s own scientific efforts in the Klamath Basin—USGS will undertake additional scientific studies focused on the identified knowledge gaps. As a non-regulatory agency with a purely scientific mission, USGS will direct its science in both the upper and lower basin toward the critical needs of decision makers.

Additionally, in FY2001, the FWS began to collect baseline information for a study to assess fish habitat conditions in the Klamath River and its tributaries below Iron Gate Dam. We hope that actions will result from the study that will help recover species, avoid further listings, enhance tribal trust responsibilities, restore recreational fisheries and related local economies, and reduce impacts of conservation efforts on water users.

LOOKING AHEAD

Interior has organized longer term efforts. I can report on very good progress in implementing Public Law 106-498, the Klamath Basin Water Supply Enhancement Act. As I noted earlier, Reclamation in 1997 entered into a partnership with the States of Oregon and California and the Klamath River Compact Commission to begin a Water Supply Initiative. Based on information collected through sustained public outreach efforts, Reclamation has identified 95 potential projects.

Public Law 106-498 provides Interior important authority and direction to advance efforts begun under the Initiative, and authorizes additional important feasibility studies. Representatives of Oregon and California are very interested in expanding the partnerships initiated with the Water Supply Acquisition Program by participating in the feasibility studies authorized in Public Law 106-498. Reclamation will be working closely with the States over the next few months to develop a comprehensive strategy for full implementation of the Act.

The Act authorized and directed the Secretary of the Interior to study, in consultation with affected State, local and tribal interests, stakeholder groups and the interested public, the feasibility of:
Increasing the storage capacity and/or yield of the Klamath Project facilities while improving water quality, consistent with the protection of fish and wildlife.

Developing additional Klamath Basin groundwater supplies; and,

Finding innovative solutions in the use of existing resources, or market-based approaches, consistent with state law.

Using funding previously provided for the Water Resources Initiative, Reclamation has been able to initiate partial implementation of the Act as follows:

1. **Increasing Klamath Project Storage Capacity/Yield:** In December 2000, Reclamation released an appraisal level report examining the desirability of raising the Upper Klamath Lake as much as two feet to elevation 4145.3 feet. The report considered two alternatives: 1) construction of new dikes and sea walls, and modification of existing dikes to contain the lake within its current boundaries, and 2) acquisition of lands inundated by raising the lake without structural construction or modification to contain the lake within its current boundaries. Option 1 is estimated to cost $125 million and option 2 is estimated at $129 million; the cost of either option is approximately $800 an acre-foot. A feasibility study would consider environmental impacts and costs and benefits of raising the lake. The study is expected to begin on a limited basis during Fiscal Year 2001, using existing funding from the Water Resources Initiative.

Reclamation also has completed a cursory review of existing information to determine if it is feasible to increase the storage capacity by raising the Gerber Dam. Feasibility of this project is considered likely, and collection of engineering data has begun. A plan of study is in preparation during Fiscal Year 2001, using existing funding from the Water Resources Initiative.

2. **Developing Groundwater Supplies:** In Fiscal Year 1999, Reclamation entered into a cooperative agreement with the Oregon Water Resources Department to study the potential of obtaining supplemental groundwater supplies in the Klamath and Lost River Basins in Oregon. Preliminary results indicate good potential for high production wells in the aquifer underlying lands irrigated by Shasta View Irrigation District. These wells are anticipated to have a low impact on other wells in the area. In the 2001 irrigation season, an existing well will be pump-tested. If long term pumping appears feasible, a plan of study will be prepared regarding the potential to drill additional test and production wells. This ongoing effort helped to facilitate the emergency relief efforts described above.

Reclamation also entered into a cooperative agreement in Fiscal Year 1999 with the CDWR to examine groundwater in the California portion of the Klamath and Lost River Basins. Since the Fall 1999, CDWR has performed semiannual water level measurements on 35 wells. Data will be collected over a three year period to assess the potential for groundwater augmentation.

In addition, as mentioned above, Reclamation provided funding for a cooperative study by the Oregon Department of Geology and Mineral Industries and the U. S. Geological Survey (USGS) to determine the geologic potential for additional groundwater availability in the Wood, Sprague
and Williamson River valleys. Information gained from that study could be used to initiate a full feasibility study.

3. **Innovative Solutions**: Reclamation recently initiated a one-year pilot Klamath Basin Irrigation Demand Reduction Program to determine irrigators’ interest in receiving a payment in lieu of applying surface water to their irrigated lands. This pilot program may aid in development of a long-term demand reduction program. Reclamation received approximately 550 proposals from irrigators willing to forego surface water on their irrigated lands in exchange for a combined total exceeding $20 million. Reclamation’s Fiscal Year 2001 budget for implementation of this program is approximately $4 million.

Public Law 106-498 also directed the Secretary to complete ongoing hydrologic surveys in the Klamath Basin conducted by the USGS, mentioned earlier. The study has four phases and is scheduled to be completed in Fiscal Year 2005. The Act also authorized the Secretary to compile information on native fish species in the Upper Klamath River Basin, upstream of Upper Klamath Lake. A compilation of existing information is currently underway, and will be used to determine the necessity of further studies.

We will do our utmost to see that these studies are given very high priority. We fully appreciate the necessity of these and other projects to work toward a sustainable future within the basin – both for those who live and work there and for the wildlife we are pledged to conserve.

With regard to Project Operations for coming years, when the Bureau develops future plans to meet its multiple obligations and other biological assessments are developed in consultation with FWS on such plans, FWS will fully review the existing scientific data and to seek appropriate public comment and peer review.

This concludes my prepared testimony. I am pleased to answer any questions you may have.