Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION?

A. Ron Cole- Refuge Manager, Klamath Basin National Wildlife Refuge Complex

4009 Hill Road, Tulelake, California 96134

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE?

A. Education: B.S. Wildlife Management, HSU

Work Experience: 27 years employed by USFWS, includes 10 years in biological sciences, 15 years as Refuge Manager, 2 years as Refuge Supervisor for refuges within CO/KS/NE.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Water is the key resource required in order for the refuges to meet the legislated goals and purposes for which they were established. Any action that could potentially limit the availability of water on the refuges would diminish the ability for the Service to meet those obligations.

Q. PLEASE DESCRIBE THE PURPOSE AND IMPORTANCE OF THE LOWER KLAMATH AND TULE LAKE REFUGES.

A. The Klamath Basin, in southern Oregon and northern California, contained over 350,000 acres of wetlands prior to 1900 (Adkins, 1970). This region, with its rich soils and abundant food, supported peak concentrations of over 6 million waterfowl. These birds rested in the Basin during the spring and fall to gather energy reserves for their migration along the Pacific Flyway. Additionally, the Klamath Basin provided vital nesting habitat for waterfowl and colonial nesting species of pelicans, cormorants, egrets, and herons. Less than 25% of the historic wetland acreage of the Basin remains today, and nearly all of it is included in the refuge system. The

refuges are protected and managed to insure future habitat for one of the nation's largest remaining concentrations of wildlife. Lower Klamath Refuge, established by President Roosevelt in 1908, was our nation's first waterfowl refuge. The 46,913 acre refuge is a varied mix of shallow marshes, open water, grassy uplands, and croplands that are used by waterfowl and colonial nesting birds.

Established in 1928, Tule Lake National Wildlife Refuge encompasses 39,119 acres of mostly open water and croplands. Approximately 15,000 acres are leased by farmers under a program administered by the Bureau of Reclamation. Refuge personnel or permittees farm another 1,900 acres of cereal grain and alfalfa. These crops, together with the waste grain and potatoes from the lease program, provide a major food source for migrating and wintering waterfowl. Management of the refuge is guided by the Kuchel Act of
1964.

Q. WHAT ARE THE CURRENT AND PROJECTED COSTS FOR POWER FOR THE REFUGES?

A. The Klamath Basin NWR Complex has seven main pumping stations that currently have an average annual electric bill of $5,300. A 20 fold increase in rate would amount to a $106,000 annual electric bill for the wildlife refuges.

In additional, the Klamath Basin Refuges are responsible for paying the water bill to Tule Lake Irrigation District on 2,500 acres of refuge farmlands under a congressionally approved contract at a rate of $37 per acre for an annual fee of $92,500. This fee is based in part on TID electrical

pumping costs. A doubling of the irrigation fee on the Tule Lake NWR to $75 would increase the refuges water delivery bill to $187,500. Lower Klamath NWR has an annual bill of approximately $45,000 drainage fee, payable to the U.S. Bureau of Reclamation that is based partially on the electric costs of draining about 45,000 acre feet annually from the refuge. If this fee were to increase twenty fold it would go to $900,000.

In summary, a ten-fold power rate increase would increase the refuge's annual operating costs from $142,000 to approximately $690,000. A twenty-fold power rate increase would increase the refuge's annual operating costs from $142,000 to approximately $1,193,500.

Q. WHAT HISTORICALLY HAS BEEN THE SERVICE OF WATER FOR THE REFUGES?

A. The water source for both Tule Lake and Lower Klamath National Wildlife Refuges has historically been primarily surplus Project irrigation water. Approximately two thirds of the water source for Lower Klamath NWR has historically been water transported through Sheepy Ridge from Tule Lake NWR via the D Plant pumping station. As water conservation increases along with power rates, this surplus water which the refuges have depended upon will diminish drastically.

Q. WHAT IMPACTS DO YOU SEE FROM THUS PROPOSED CHANGE IN POWER RATES?

A. Because the refuges are currently viewed as last in priority for Project water, the refuge cannot successfully compete for Project water during the summer irrigation period. To maximize

the amount of water delivered to refuges, refuges could capture water at a time when those of higher priority do not require it.

The cost, timing of delivery (i.e., winter delivery) and amount of water for the refuges may soon change dramatically. The Service currently has no plan in place to replace this loss of water, nor any plan that can sufficiently reduce the amount of electricity used or foresees any changes within current contract structure with TID and BOR. Presently, the Refuges only option is to pay the increased fees and hope that surplus water continues to be available.

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Cecil Lesley. My Business Address is 6600 Washburn Way, Klamath Falls, Oregon 97603. I am the Chief of the Water and Lands Division for the Klamath Basin Area Office of the Bureau of Reclamation (Reclamation).

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE?

A. I received a Bachelors degree in Social Sciences from Humboldt State University, Arcata, California in 1979, I have taken course work in engineering from other academic institutions, and I have take Reclamation provided training in Water Management, Facilities Management and Water Measurement. My current duties as Chief, Water and Lands Division are daily operations of the Klamath Project including water operations, land management and Right of Way issues, and water rights administration. I have held this position for 3 years. I have been employed by Reclamation for 26 years, primarily in water and lands management and project operations. My experience prior to this position is as a repayment specialist dealing with Reclamation water contracts, negotiations, water operations and water rights issues for eight years; and as a realty specialist dealing with land management, acquisition and disposal issues for five years.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. In this testimony, I will address: (1) the background of Klamath Reclamation Project and its relationship to PacifiCorp; (2) the uniqueness of the Klamath Reclamation Project; and (3) the reasons a reduced rate is appropriate for the Klamath Reclamation Project.

Q. WHAT IS THE BACKGROUND OF THE KLAMATH RECLAMATION PROJECT AND ITS RELATIONSHIP TO PACIFICORP?

In 1903, Reclamation engineers surveyed the Klamath Basin to determine if it would benefit from federally sponsored projects to increase irrigated agriculture under the 1902 Reclamation

Act; Report of J. T. Whistler, to Chief Engineer, Dated Nov. 2, 1903 Reclamation/Service/3. The determination was made that there would be benefit to the basin from Reclamation Projects, and in 1905 Reclamation filed claims to cover all of the water not previously claimed on the upper Klamath River; Filings by T. H. Humpherys with the Oregon State Engineer, Dated May 17, 1905 Reclamation/Service/4. At that time Reclamation initiated a program of acquisition of senior water rights claims and previously developed irrigation projects. Reclamation developed plans and, with the support of the Secretary of the Interior, began development of the Klamath Reclamation Project.

Reclamation saw the benefit that could accrue to the project with the addition of hydroelectric power, and a number of filings were made to claim the right to produce power; Filings by J. B. Lippincott with the Oregon State Engineer, Filed January 5, 1905 Reclamation/Service/5; in addition to the use of the water for irrigation purposes, with the waters of the Klamath River. Before Reclamation could exercise its claim for power, Copco, now PacifiCorp, proposed to develop hydroelectric power in the canyon below Keno, Oregon. For certain considerations, Reclamation relinquished its claim on the falling water, and allowed Copco to develop the now existent power infrastructure in the Klamath Basin.

To benefit both parties, Copco proposed development of Link River Dam as a feature of the Klamath Reclamation Project. Reclamation agreed to the project, and in 1917 the parties entered into a contract for Copco to build the dam and transfer it to Reclamation. In addition to transfer of the dam, Copco was to provide electric power to Reclamation and its Project water users at a fixed rate for the term of the contract; Bureau of Reclamation Contract No. I1r-406, Dated February 24, 1917 Reclamation/Service/6; Memorandum of February 24, 1917 Reclamation/Service/7. This benefited both parties in providing additional firm water supply for

irrigation purposes with electric power for drainage pumping, and additional water at all times for power generation, both at Link River and at the Copco 1 and 2 facilities, with a firm electric customer base to pay for development of necessary infrastructure; Letter from Herbert D. Newell to Klamath Chamber of Commerce, Dated November 16, 1920 Reclamation/Service/8; Evening Herald Article, Dated January 9, 1919 Reclamation/Service/9; Copco letter to Chamber of Commerce, Dated November 15, 1920 Reclamation/Service/10.

In 1951, Copco proposed development of additional facilities downstream of Keno (Big Bend No. 2, the original Project No. 2082). Reclamation through the Department of the Interior intervened in the Federal Power Commission proceedings with the current 1956 contract between PacifiCorp and Reclamation the outcome of the settlement between the parties; Letter from Secretary of Interior, Oscar L. Chapman, Dated October 10, 1951 Reclamation/Service/11; Copco letter October 26, 1951 Reclamation/Service/12. This contract allows PacifiCorp to continue operation and maintenance of Link River Dam, and provides for power rates for Reclamation and its water users at rates similar to those in the 1917 contract; Bureau of Reclamation Contract No. 14-06-200-5075, Dated January 31, 1956 Reclamation/Service/13. The development proposed in the Big Bend No. 2 project would provide additional power for the customers in the Klamath Basin; Copco letter May 18, 1953 Reclamation/Service/14. This contract had to be ratified by both the Oregon and California Public Utility Commissions to become effective; Protest of Klamath Irrigation District to Hydroelectric commission Reclamation/Service/15. The current contract, if not extended, expires April 16, 2006. The Klamath River Compact confirmed the rights of the Klamath Reclamation Project to use the water of the Klamath River, while encouraging power production and other uses of those resources. Additionally, it provided that the power produced from these resources should

provide the "lowest power rates which may be reasonable for irrigation and drainage pumping, including pumping from wells," for those power users in the Klamath Reclamation Project; Letter from Secretary of Interior Douglas McKay to Klamath River compact commission, dated October 26, 1953 Reclamation/Service/16;Letter from Klamath River Compact Commission to Secretary of Interior, Dated December 17, 1954 Reclamation/Service/17.

Q. EXPLAIN WHY THE KLAMATH RECLAMATION PROJECT IS UNIQUE.

Unlike most Reclamation Projects, the Klamath Project is essentially a drainage project, not a large water storage project. Lands were developed for irrigation by draining Lower Klamath Lake and Tulelake; Cessions Act, 33 Stat. 174, Dated February 9, 1905 Reclamation/Service/18. To accommodate this, Reclamation developed Clearlake and the Lost River Diversion Channel to reduce flows to Tulelake to allow evaporation of the lake and development of the lakebed as irrigated agricultural lands. Clearlake was developed as an evaporation sump to reduce annual flows in the Lost River to Tulelake, and the Lost River Diversion Channel was developed to divert flood flows and excess irrigation flood flows from the Lost River to the Klamath River to reduce flooding in Tulelake; Letter from D. C. Henry to Oregon State Engineer, Dated May 1, 1908 Reclamation/Service/19.

The construction of the Straits Drain allowed development in the Lower Klamath Lake area. When the railroad laid their track into Klamath Falls, they had to build a berm over the marsh lands between Lower Klamath Lake and the Klamath River; Railroad agreement Reclamation/Service/20. To allow water to exit the area, the Klamath Straits was developed into a drain with two pumping stations to lift the water from the lower portions of Lower Klamath Lake to the level of the Klamath River as it flows through Lake Euwana. The Straits Drain delivers accumulated agricultural drainage and flood waters to the Klamath River, allowing

irrigated agriculture in the Lower Klamath Lake area, as well as maintaining operational levels in the Lower Klamath Lake National Wildlife Refuge.

One additional feature provides additional water to the Klamath River from the Project. The D Pumping Plant pumps the water accumulated in the Tulelake sumps through Sheepy Ridge to the P Canal system where it is carried to and through the Lower Klamath National Wildlife Refuge to the Straits Drain, and eventually back to the Klamath River. The water that accumulates in the sumps is the side flow from the Lost River basin below the Lost River Diversion Dam in the winter, and drainage return flows from the Klamath Reclamation Project in the irrigation season. These drainage features developed by the Klamath Reclamation Project have increased the water available to the Hydroelectric Project by a substantial quantity. Coupled with the additional storage provided by Link River, Gerber and Clearlake dams, control and firm water supply are provided to the Hydroelectric Project that would not be available without the Reclamation Project.

Q. WHY SHOULD THE KLAMATH RECLAMATION PROJECT RECEIVE A REDUCED POWER RATE?

The Reclamation Project provides a positive effect for the Hydroelectric Project. Storage in Reclamation facilities allow for increased flows in the river during the late summer months when there would otherwise be limited ability to produce electricity (the river sometimes went dry below the current Link River Dam before the project.) Storage also provides flood control which reduces power outages due to high flow conditions in the winter months. Both of these periods of positive effect from storage are prime periods for power sales, due to high demand in the winter for heating and in the summer for air conditioning.

At least as important is the increased water availability from the Reclamation Project Drainage

facilities. The Lost River Diversion Channel provides an average of 165,200 acre-feet annually to the Klamath River to augment power production, the Straits Drain provides an average of 106,630 acre-feet annually. An average annual increase of water available to the Hydroelectric Project of over 270,000 acre-feet, almost 23 percent of the flow that passes Keno; Straits Drain Reclamation/Service/22; D Plant Reclamation/Service/23; Lost River Diversion Reclamation/Service 24.

The additional water made available from the Reclamation Project, especially from the Straits Drain, depends on pumping to provide the ultimate benefit to the Hydroelectric Project. The pumps that develop this benefit are those large federally owned pumping plants that ultimately push the accumulated water from the sumps through the Straits Drain to the Klamath River, drainage pumps that are federally owned and operated by irrigation districts under contract, drainage pumps that area owned and operated by irrigation districts, and drainage pumps owned and operated by individual irrigators. Without this integrated system, there would be a substantial reduction in water available for power production.

Q. WHAT IS THE IMPACT IF THE POWER RATES GO TO THE PROPOSED TARIFF RATE?

Power use by federal facilities averaged 14,380,383 kWh between 1998 and 2003. The highest usage was in 1999 with a total of 21,565,339 kWh. The average cost of federal pumping for that period was $53,265, and the high in 1999 was $80,316. If power rates go to current tariff rate, as proposed by PacifiCorp, the average cost for power for that period would have been $906,625 and the high would have been $1,328,894. At this time power usage in the future is anticipated to remain similar to these historic patterns; Power Tables Reclamation/Service 25.