Committee on Resources,

Subcommittee on Water & Power

water - - Rep. Ken Calvert, Chairman
U.S. House of Representatives, Washington, D.C. 20515-6204 - - (202) 225-8331

Witness Statement

TESTIMONY PREPARED FOR
HOUSE COMMITTEE ON RESOURCES
MAXIMIZING POWER GENERATION AT FEDERAL FACILITIES
Prepared by:
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April 26, 2001

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INTRODUCTION

Good Afternoon. My name is David Wegner and I live in Durango, CO near the Animas River, a tributary to the San Juan and the Colorado Rivers. I have been asked to provide you with my perspective on the importance of the environmental and other factors in the management of the Federal hydropower facilities in the West with specific reference to the Colorado River basin. Thank you for this opportunity. My perspective is likely not to be the same as the others who have testified before you today.

I am a scientist with over thirty years of experience and studies on river dynamics and environmental impacts. My background on this issue began on the Colorado River system in 1975 as a biologist on the Central Utah Project. During my career with the Bureau of Reclamation (1976-1996) I have had the opportunity to study the Colorado River system from the headwaters to the Sea of Cortez. Since I left the Department of the Interior in 1996 I have expanded and applied my knowledge of dam and river ecosystem relationships to the Columbia and Snake river systems, in Alaska, other rivers in the Great Basin, and internationally on rivers in Turkey, Germany, France, Russia, China, Siberia, Japan, Costa Rica and Vietnam. Many of the problems and challenges are the same.

I am here today as a representative of the Glen Canyon Institute, located in Flagstaff, AZ, and also representing the rivers and the species they support. I intend to address the specific question being asked by this Committee utilizing my expertise in the Colorado River system in combination with knowledge gained and drawn from other river systems in the West.

QUESTION BEING ADDRESSED

Does the current short-term electrical situation in California and potentially in the Western United States

warrant modifying the environmental rules and regulations that have been developed for the Federal dams in the West?

BACKGROUND

The river basins of the West are controlled by multiple dams, irrigation diversions, and pumping plants. In the majority of cases, rivers with dams cannot support the historical assemblage or biological diversity of fish and wildlife species that historically were present. The largest dams in the Colorado River system are Federal and under the direct control of the Bureau of Reclamation with the hydropower being managed by Western Area Power Administration. There are over 60 Federal, State and private dams and 17 transbasin diversions that control the Colorado River plumbing system. In the Northwest, the Columbia and Snake River system is manipulated by both Federal and private dams. In the Northwest, the Corp of Engineers and the Bureau of Reclamation manage the dams while the Bonneville Power Administration manages hydropower distribution.

These water development systems were planned, approved by Congress and constructed prior to the passage of the majority of the environmental laws. The very laws that today make the United States one of the most progressive nations on the planet recognizes the importance of our river systems and the species they support. Congress has been instrumental in the development of the water and hydroelectric resources of the West and ensuring that the environmental species that depend on these rivers are considered as equal partners in the management of the federal dams and irrigation systems.

The rivers of the West are not what they used to be. This has been documented extensively in many scientific studies conducted by Federal, State, Tribal and private researchers. Today the rivers are fragmented, disjointed and severely modified from their former dynamic nature. The species that depend on these rivers provide economic benefit to the West. The Federal agencies that manage the rivers are under Congressional direction to ensure that environmental considerations are included in the management of the rivers. We are not here today to debate the value of the dams. It is scientifically documented and acknowledges that dams have seriously impacted river environments.

When the National Environmental Policy Act was signed into law, we, as an American people, recognized the importance of our environment and the species that are supported by them. With the subsequent passage of the Endangered Species Act, the Clean Water Act, Wild and Scenic Rivers Acts and other Federal legislation Congress recognized our responsibility for protecting species and their habitats. Many of the fish and wildlife species that have been recognized as endangered evolved and are dependent upon critical habitats and ecologically functional river systems.

Several examples of the evolution of environmental concerns in Western river basins are identified below. These efforts are specific examples of federally mandated actions intended to balance water and electricity management in the West and include:

Colorado River Fish Program (1980's)

Glen Canyon Environmental Studies (1982-1996)

Grand Canyon Monitoring and Research Program

Upper Basin Fish Recovery Program

San Juan River Fish Recovery Program

Flaming Gorge Dam Environmental Impact Statement

Central Utah Project Environmental Impact Statement

Central Arizona Project Environmental Impact Statement

Lower Colorado River Multi-Species Conservation Program

Northwest Power Planning Act (1980)

Mid-Snake EIS (Bureau of Reclamation)

FERC Relicensing Program for the Hells Canyon Complex (Idaho Power Company)

Lower Snake River Dams EIS (Corp of Engineers)

CALFED, San Francisco Bay-Delta Accord (2000)

Trinity River Restoration EIS (2000)

Multiple FERC relicensing efforts ongoing across the West

COLORADO RIVER SYSTEM AND THE EVOLUTION OF ENVIRONMENTAL CONCERNS

The Glen Canyon and Hoover Dams are the primary water control and electrical production facilities on the Colorado River system. In the case of Glen Canyon Dam the study of the impact of the operations of Glen Canyon Dam on the upstream and downstream environmental, recreation, economic, cultural and Native American issues began in 1973 and continues today.

1973 - Biological Opinion on the operation of Glen Canyon Dam

1982 - Secretary of the Interior James Watt initiated the Glen Canyon Environmental Studies

1987 - National Academy of Science Review #1

1989 - Judicial review of the need for an environmental impact statement on power marketing criteria for the Colorado River Storage Project dams

1989 - Secretary of the Interior Manuel Lujan initiates the Glen Canyon Dam operations EIS

1990 - National Academy of Science Review #2

1992 - Grand Canyon Protection Act (P.L.102-575)

1996 - National Academy of Science Review #3

1995 - FINAL Environmental Impact Statement on Glen Canyon Dam. Over 30,000 public comments

received

1996 - Experimental Flood-Environmental Assessment at Glen Canyon Dam (First application of Adaptive Management at Glen Canyon Dam)

1996 - Record of Decision on the operations of Glen Canyon Dam

- Modified flow releases to protect endangered species

- Modified flow releases to protect cultural and public trust resources in Grand Canyon National Park and Glen Canyon National Recreation Area

- Modified flow releases to allow for power emergencies

1999 - National Academy of Sciences Review #4

2000 - Glen Canyon Institute - Draft Citizens Environmental Assessment on the decommissioning of Glen Canyon Dam

What these sequence of actions and efforts illustrate is that there has been a

clear and direct effort made through Congress, the Executive Branch of the government, the courts and the scientific community to guide the management of the Federal dams on the Colorado River system to balance and protect the environmental resources. The decisions that have resulted have gone through extensive scientific, legislative, administrative, public, tribal and judicial review and approval process.

TODAYS CHALLENGE

Today we are faced with challenges and significant questions related to the management of the hydroelectric dams in the Western United States. These dams were historically built as multipurpose dams, with irrigation and flow management as the primary goals. Hydroelectricity was a secondary goal that has evolved in many cases to be the primary driver for operations. These dams were built for development reasons with many subsidies built in to ensure that the Federal resource was used. The historic decisions on dam priorities were made in a different time, prior to the passage of many of this nations environmental laws. The subsidies of yesterday do not warrant loosing the important environmental resources of today.

The challenge is finding ways to keep the western electrical system whole and functional. The obvious and easiest first place to look is the hydropower facilities. They are easy to turn on, turn off, and have historically made up the slack for meeting short-term electrical needs. In the past, the issue would have been done without public input and discussion. That quick and easy approach cannot be taken today when other opportunities have yet to be explored.

Over the years the impacts of dam construction, operation and management have been the focus of multiple scientific and administrative studies. The result has been a refinement of the operations of many of the dams in an attempt to balance the environmental affects with management goals. The list of dam impacts in published, peer-reviewed documents is extensive and available if the Committee desires.

A critical question that should be asked before any change is made in the management of the Federal dams is *Who is benefiting from the power during the emergency?* We should not be violating agreed upon

environmental regulations to provide subsidized power to pump subsidized water so that wealthy corporations can manufacture subsidized products or so that corporate farms can grow uneconomical, and subsidized, crops in the desert and leave us with diminished water quality that kills more species and further degrades marginal lands and habitats.

FINDINGS

In the course of developing this testimony, several findings are important to consider.

1. The California power crisis is a short-term issue. It has been caused by:

a. The previous state administration not approving any new power plants.

b. Flawed state deregulation legislation

c. Seven power plants are currently under construction and another six are on the fast track approval process

2. California has not developed aggressive short-term conservation incentives.

3. The current shortage of electrical supply has developed as a result largely of a poorly developed regulatory structure. No price caps have been implemented, no financial incentive structures are in place, and as a result, the public power financial capability has been negatively impacted.

4. The Federal power managers have oversubscribed its contracts. As an example, Bonneville Power Administration has approximately 12,000 megawatts of contract responsibility in place and has the physical resources to supply only 9,000 megawatts. This requires BPA to purchase an additional 3,000 megawatts of energy on the open market at prices that are often from 4 to 10 times the cost of the federally produced power. The result, Federal financial shortfalls; the solution, don't oversubscribe capacity to produce.

5. Flow management regulations in Western River system Federal dams have gone through extensive legislative, scientific, administrative and legal review

6. Environmental regulations at Federal dams are necessary to balance ecosystem and social needs. These regulations have already been implemented without significant impact to Federal power contracts.

7. Critical Tribal resources will likely be affected by rolling back of environmental regulations on Western rivers.

8. Hydropower will continue to shrink in the overall energy production program due to diminishing capacity of the reservoirs, as sediment replaces the water and mandated water allocations restrict delivery ability.

RECOMMENDATIONS

The following recommendations are provided for consideration of this Committee:

1. Closing the gap between electrical supply and demand through price mechanisms and conservation will go a long ways to alleviate the current electrical squeeze.

2. A need exists to develop clear criteria and priorities that describe the circumstances for declaring a power

emergency and actions that Western Area Power and Bonneville Power Administrations would need to take prior to such a declaration.

3. Develop immediately aggressive conservation actions to reduce the power demand. This would include many of the same activities were implemented during the 1970's energy crisis:

a. Turn off outdoor advertising signs and lights in public and private buildings when they are not being used.

b. Develop irrigation power buy back programs with farmers

c. Do not develop or operate Federal projects that use more electricity than they produce, such as the proposed Animas La Plata project.

d. Evaluate every Direct Service Industry to see if Demand Side Management or other conservation activities could reduce their power requirements. Examples would be the current temporary shut down of several aluminum smelters in the Northwest

e. Aggressively develop a campaign to educate the public on conservation measures

4. Retire marginal agricultural lands that are growing subsidized crops that are dependent upon subsidized power for pumping water.

5. Maintain higher reservoir levels at Reservoir Mead by drawing down Reservoir Powell. This has the benefit of minimizing evaporation loss at Powell and maximizing power production that can go directly into the California market from Hoover Dam. This would reduce transmission losses and maximize operational efficiency.

6. The Glen Canyon Institute urges a measured, scientific program of reviewing dam management at all mainstem facilities and the development of ecological sustainable management of our rivers. This would include a complete economic evaluation of dams, identifying all subsidies and long-term restoration and maintenance costs necessary to provide a complete evaluation of dam impacts. Where scientifically and publicly supported, dam decommissioning and restoration of river systems should be implemented. In the case of the Colorado River, meeting electrical needs in California might be better met by focusing on maximizing Hoover Dam operations rather than utilizing Glen Canyon Dam.

SUMMARY

The rivers of the Western United States evolved over millions of years and support species and ecosystems that are economically important. The regional economics of the West are directly and indirectly linked to our river systems, whether it be for irrigation, water supply, salmon and other native species, recreation or hydropower. Native Americans, local communities and regions, and millions of people across the country and the world are dependent upon Congress providing clear and honest guidance in protecting our environmental resources for now and the future.

Development of the West has resulted in river systems that are constrained and unable to sustain environmental and economically important living resources without the regulations that have been imposed on the Federal dams and restoring ecological integrity. The long-term ecological sustainability for many of

our rivers and the species that they support are at significant risk if the current regulations are ignored or administratively rolled back.

The current electrical situation in the West is one that has occurred because of poor planning, ill-planned and implemented deregulation actions in California, and the frenzy of private power interests who are poised to make considerable profit at the expense of the environmental resources.

The financial integrity of the Federal power agencies can be replenished as the electrical system becomes whole again. This will likely occur soon as additional power plants come on-line within the next twelve months. The damage done to the rivers and the environmental resources during the electrical emergency cannot be replenished or brought back. The rivers and the species that they support should not be the ones to pay. Congress and the American public have, since 1970, consistently shown that the environmental resources should be considered equally with water and power. This is not a time or a place to violate the trust that the American public has put in its lawmakers and the responsibility that we all have to the future. I hope you can find the strength to do the right thing and fully explore all options to solving the electrical concerns before further compromising our rivers. Thank you.

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