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Testimony
Before the Committee on Resources
United States House of Representatives

Oversight Hearing on "Stabilizing Rural Electricity Service Through Common Sense Application of the Endangered Species Act"

Wednesday, May 4, 2005

Introduction:

Steve Eldrige has been the General Manager and CEO of Umatilla Electric Cooperative (UEC) since December of 1990 and has over 30 years of electric utility experience. Steve is currently Chairman of the Governor's Oregon Rural Policy Advisory Committee, Eastern Oregon Telecom, LLC, and the Oregon Rural Electric Cooperative Association Government Affairs Committee. He serves on the Boards of Pacific Northwest Generating Cooperative, Pacific Northwest Utilities Conference Committee, the Good Shepherd Hospital Board of Trustees, Northwest Open Access Network Oregon Cooperative -- now known as LS Networks, Inc., and Ruralite Services. Steve also represents UEC on the Bonneville Power Administration Power Function Review Committee, Oregon Managers Group, Oregon Development Group, and the Tri-Herm Group.

Testimony:

Salmon and steelhead of the Pacific Northwest have a storied history. For many years, these runs fed the region's Native Americans before European trappers, explorers and settlers arrived. The early settlers found that salmon runs were not reliable enough in all areas to be the sole food supply and began to encourage farming, but when the salmon arrived they were in prodigious numbers. Lewis and Clark made note of salmon, novelist Zane Grey wrote of salmon and steelhead, and fishing economies through the early twentieth century were robust. (Figure 1).

Early documents show that by the mid to late 1800's, commercial harvest of salmon reached 50 million pounds. Actual harvest may have been far greater since regulations during this period were minimal, at best. Salmon harvest peaked in 1890 then declined at about the same rate for the next 80 years. The Pacific Northwest, as with much of the west, was formed as we know it today in the period from Lewis and Clark through World War II. Development included: Tributaries were dammed without fish passage for irrigation, recreation, and drinking water; forests were logged to make room for the cities of Portland, Seattle and Spokane; land was cleared for farming and timber harvested to meet lumber demands throughout the world. More than 10 million people make their home where no more than 50,000 Native Americans once co-existed with nature.

Figure 2 illustrates harvest declining as the region developed, including construction of federal dams on the Columbia River. By 1933, when the first Columbia River dam was constructed at Rock Island, several hundred miles from the Pacific Ocean, salmon harvest had declined by more than 50%.

When the last Columbia River dam closed at John Day in 1968, salmon harvest had declined to one-seventh of their historic peak. Salmon runs which were estimated at 15 to 8 million fish in the 1800's, had fallen to 1.5 million in 1968. 757,339 salmon and steelhead were counted passing Bonneville dam in 1969. No one argues with the truism that modern society is the overwhelming factor affecting the balance of nature. Not just the dams, or the cities and the millions of people; not just the freeways or logging or farming; not just one of these human activities, but all of them comprise modern society.

Dams on the lower Snake River (Figure 4) were constructed between 1962 and 1975. By 1980, salmon and steelhead numbers entering the Columbia River were 1-2.3 million fish, with 455,706 fish counted passing Bonneville Dam. Table 1 is a chronology of salmon related events over the past 200 years.

In 1978 the National Marine Fisheries Service (now known as NOAA) and the U.S. Fish and Wildlife Service, had begun review of the upper Columbia River and Snake River salmon and steelhead for potential Endangered Species Act (ESA) listing. In 1980, the Northwest Electric Power Planning and Conservation Act (Northwest Power Act) became federal law. The Northwest Power Act created the Northwest Power Planning Council which was comprised of two representatives from each of the Northwestern States – Oregon, Idaho, Washington, and Montana. The Power Planning Council had two directives from the Power Act. First, they were to assure an adequate, reliable, economic power supply; and second the Power Planning Council was to protect, mitigate, and enhance regional salmon runs.

The Council's original salmon goal was to increase salmon and steelhead runs to 5 million fish. Runs of 5 million fish were believed to be of a size to forestall any ESA listings. By 1986, runs had increased to 3.2 million, but then fell to 1.3 million in 1990. $982,500,000 was spent during the period from 1978 through 1990, funding provided solely by Bonneville Power Administration customers to enhance, protect, and mitigate regional salmon and steelhead.

Snake River sockeye salmon, which Idaho had made a concentrated effort to eradicate in order to build a premier trout fishery, were listed in ESA in 1991. Snake River spring, summer and fall Chinook were listed in ESA in 1992. At the present time, eight runs of salmon, five runs of steelhead, Kootenai River white sturgeon and bull trout throughout the Columbia River Basin are listed. After these first listings, the Power Planning Council adopted strategies which amounted to an effort to return the Columbia River, as much as possible, to pre-dam conditions (i.e. fast water and cold temperatures compared to now).

Spring and summer spill[1], along with flow augmentation[2], became operating policies of the hydroelectric system. Spill is intended to assist juvenile salmon and steelhead in getting past the dams and thereby reducing mortality rates. Augmentation is meant to decrease juvenile salmon and steelhead mortality by increased river velocity. The basis for these spill and augmentation policies is that salmon were in abundance before the dams were constructed, at a time when the rivers flooded each spring and ran as nature provided.

Spilling water is so that dams are made to look like water falls. Proponents of spill assert that any increased spill, no matter how slight, is inherently good for salmon and steelhead. This philosophy also led the Council to set flow targets at levels which cannot be met. (Figure 6). Since these flow targets

[1] "Spill" occurs when water which could go through turbines to generate electricity is instead sent through the spill way, generating no electricity.
[2] Flow augmentation occurs when water stored in reservoirs is used to augment natural river flows.

cannot be achieved, any further withdrawals cannot be allowed (above Bonneville Dam only). Because one more drop of water withdrawn makes the augmentation short fall one drop of water greater. The flow augmentation currently in place cannot be met, yet it remains in place. Spring and summer spill have very slight benefit to salmon and steelhead, but are enormously costly. Many believe that more salmon and steelhead benefits are available at much lower cost than the current spill programs.

In 2004, it was proposed, after all listed fish impacts had been mitigated, to reduce spill and save $30 million. However, a federal judge said, "no", so the water was spilled at a cost of $30 million with no measurable benefit to listed salmon.[3]

Since listing began (through 2004) $5.3 billion has been expended for regional salmon and steelhead. Bonneville Power Administration in 2005 will provide $700 million more for salmon and steelhead recovery efforts. This means that since 1978 through the current budget period, Bonneville's rate payers would have provided nearly $7 billion for salmon and steelhead. Currently, 28% of our wholesale power bill is made up of fish and wildlife costs. New spending of an additional $300 million per year will soon be proposed. Even though we have 15 species of listed fish, we do not know what will constitute recovery, there is no end in sight.

In 2004, 100 sea lions were stationed directly below the Bonneville Dam, feasting on returning adult salmon. In fact, sea lions appear to target female salmon, strip out the egg sack and leave the rest. These sea lions, who are protected by the Marine Mammal Protection Act, have even figured out how to enter the fish ladders (see photographs below Figure 5). Sea lions are not endangered and should not receive the same protective status as listed salmon – they should be dealt with effectively.

Another predator of salmon and steelhead is the capsian tern. The world's largest concentration of caspian terns nest at the mouth of the Columbia River on a man-made island of dredging spoils. After years of cajoling, litigation, and $2.4 million, caspian terns are beginning to nest elsewhere, lowering their consumption from 10% of migrating juvenile salmon to 5%. The Migratory Bird Treaty Act protects the caspian tern.

Our experience with Endangered Species Act (ESA) issues leads us to the following recommendations:

- Recovery of the species must be defined at the beginning of an ESA listing;
- Recovery actions must be modified by better information;
- Recovery actions must meet performance standards;
- The cost of recovery actions must be paid for by everyone, not just segments of society;
- Other federal laws must be integrated with the ESA;
- Recovery plans must consider the entire life cycle of the listed species;

[3] The two strategies of spill and augmentation have caused the loss of 1,000 average megawatts of firm, renewable energy. (1,000 average megawatts of energy is sufficient to provide electricity to more than 730,000 homes each year).

- Non selective harvest of endangered or threatened species must not be allowed; and
- Recovery plans must have certainty of compliance.

Figure 1:

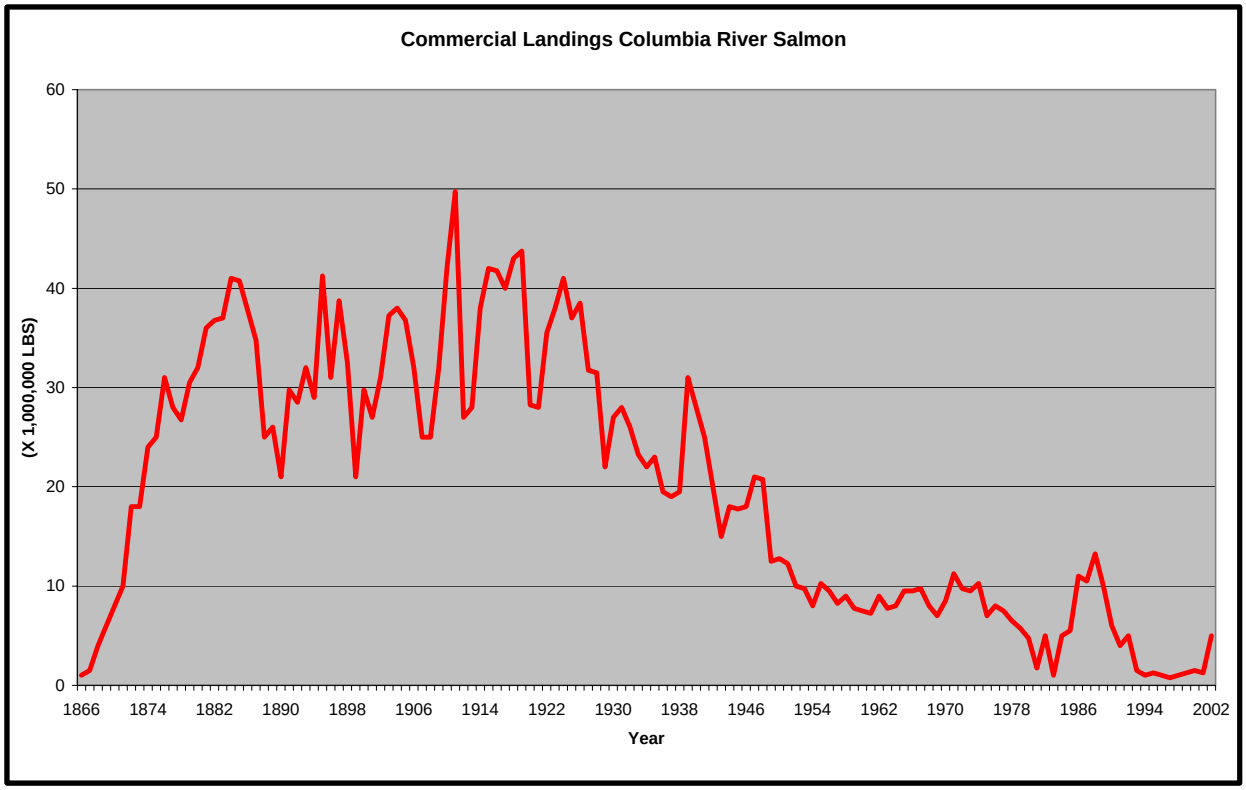


Figure 2:

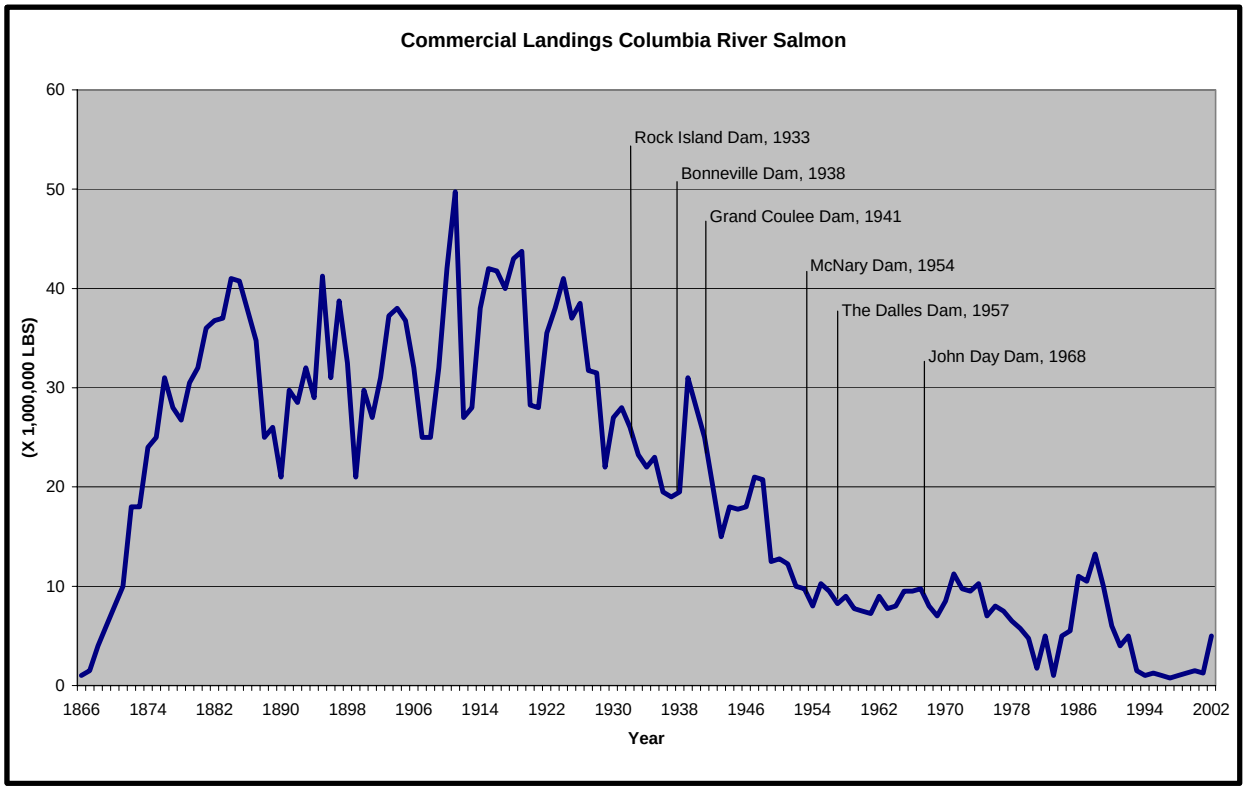
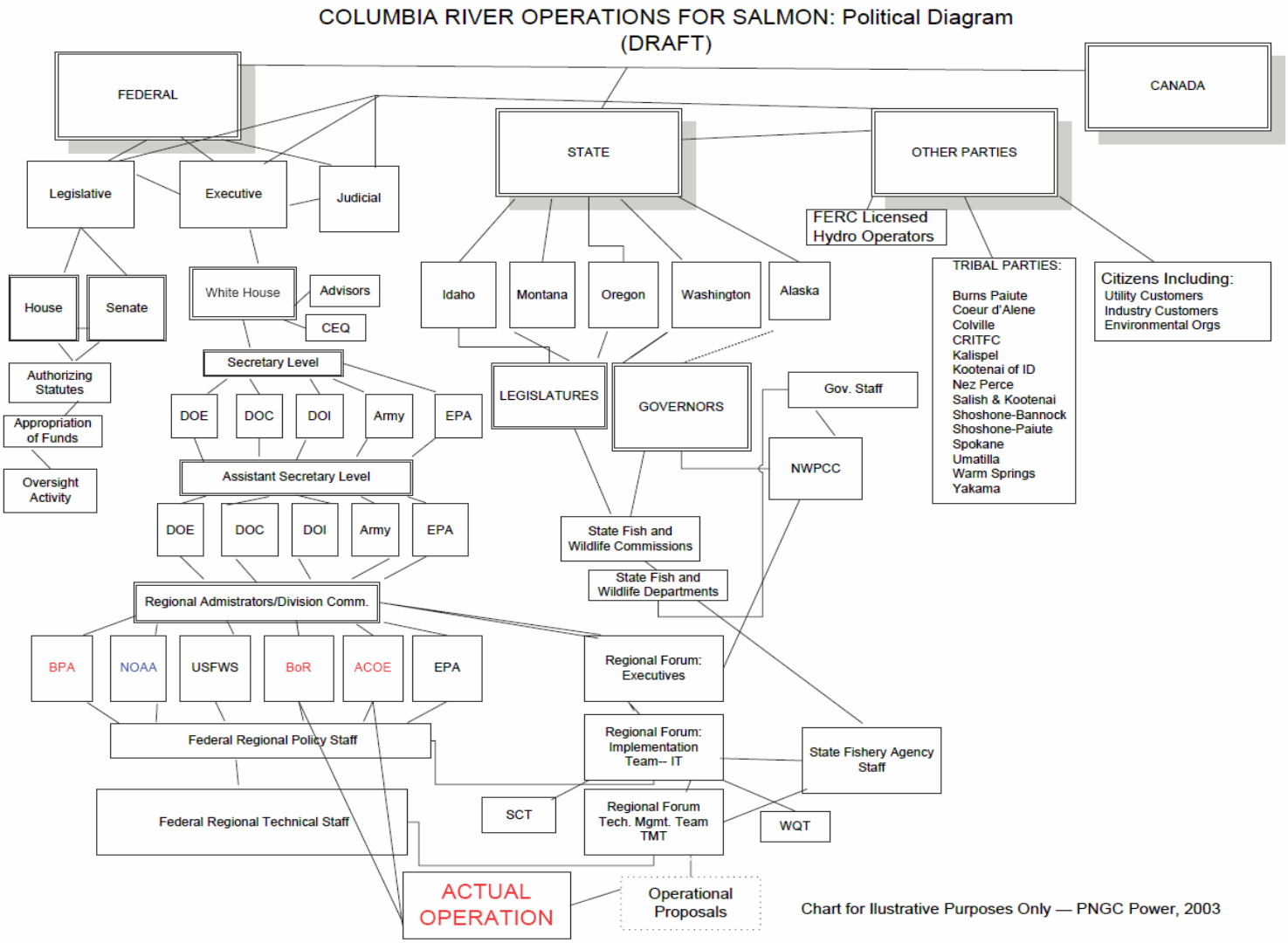


Figure 3:


Columbia River Basin
Mica
Arrow
Duncan
Hugh Keenleyside
Kootenay Lake
Canada
U.S.
Grand Coulee
Chief Joseph
Wells
Rocky Reach
Columbia R.
Albeni Falls
Libby
Hungry Horse
Noxon
Flathead Lake
Pend Oreille Lake
Washington
Montana
Seattle
Rock Island
Wanapum
PriestRapids
Lower Monumental
Little Goose
Lower Granite
Snake R.
Dworshak
Ice Harbor
The Dalles
Portland
Bonneville
John Day
McNary
Hells Canyon
Oxbow
Brownlee
Idaho
Willamette R.
Oregon
Jackson Lake
Palisades
Boise Projects
Snake R.
Corps of Engineers Dams
Dams Owned by Others
Bureau of Reclamation Dams

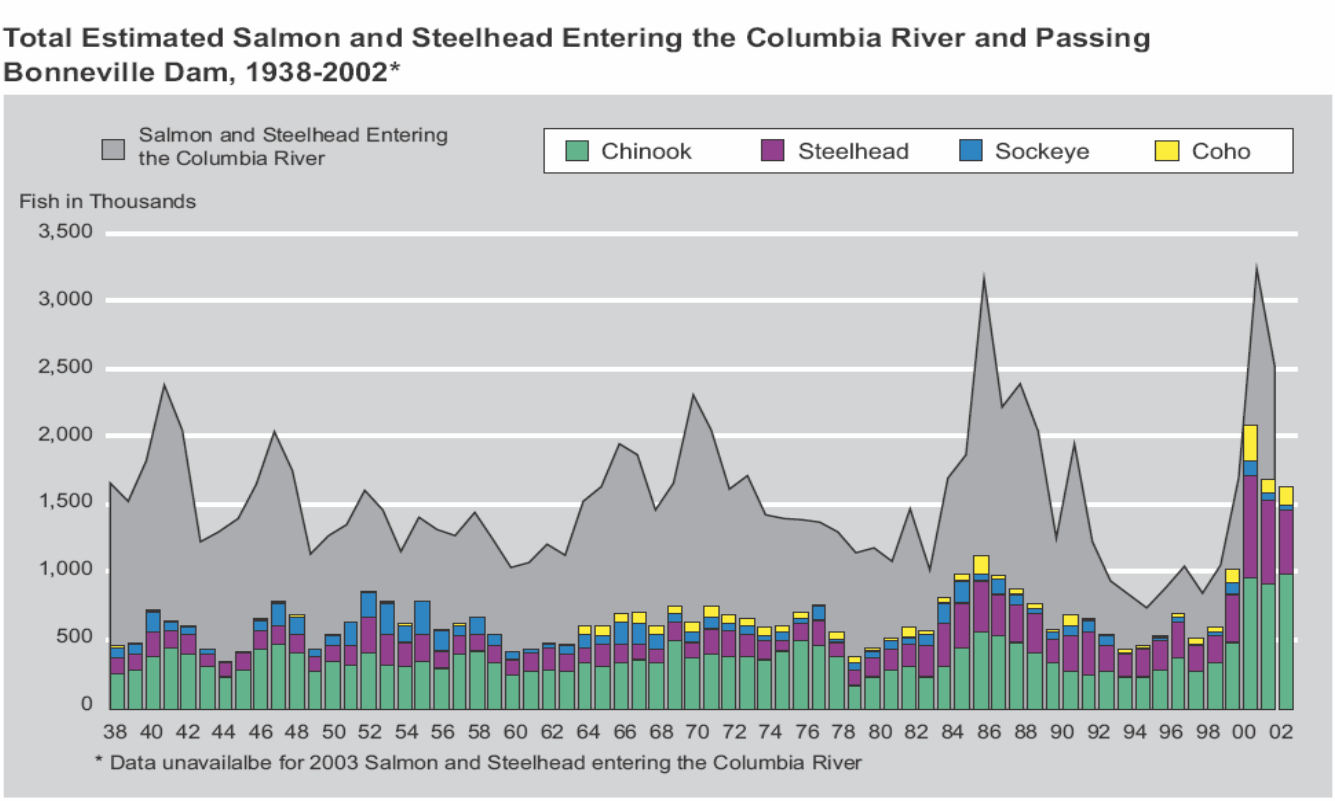
Figure 4:



Overarching Federal Laws:

- NW Power Act
- ESA Listings
- Marine Mammals Protection Act
- Migratory Bird Treaty Act
- Federal Court

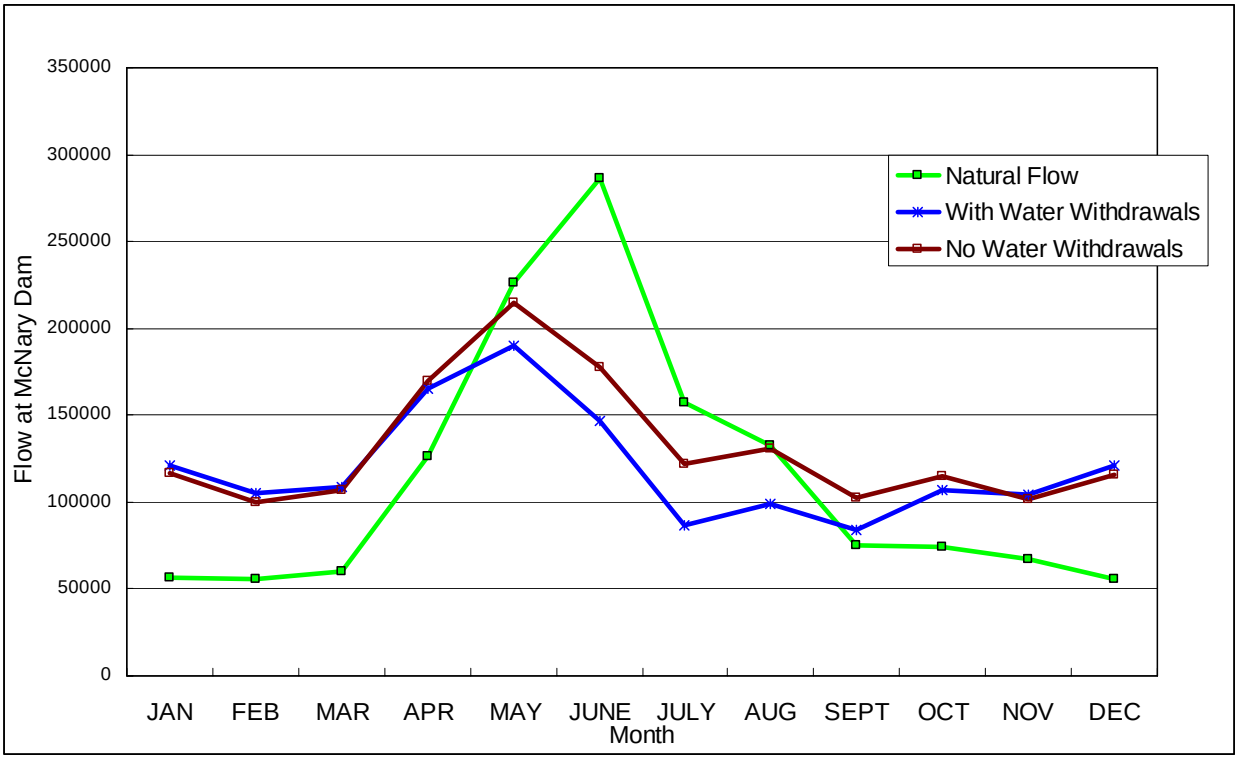
Figure 5:



Sea lions found in fish ladders:

Sea Lion found in fish viewing rooms:

Figure 6: NMFS (NOAA Fisheries) Flow Targets
Low-Water Condition, Average Monthly Flows at McNary Dam



The above graph depicts river flows at the McNary Dam, on the Columbia River, with low water-year conditions. Under the NMFS Biological Opinion, the NMFS "target flows" cannot be met, either with or without existing water withdrawals from the Greater Columbia River Basin region. Nor can the target flows be met under "natural flow" conditions, where river system dams and water storage reservoirs would be eliminated. The flows cannot be met, because the flows exceed the physical hydrological conditions of the river basin.

The flow targets were developed in 1994-95 largely based on a tribal "flow Proposal," relying on data and analyses prepared by NMFS in 1981, but are now no longer recognized by NOAA Fisheries as being applicable to current water management regimes. New data and analyses are significantly improved, with different water management implications.

Nevertheless, tribal groups, environmentalists, and some state agencies refuse to acknowledge the hard science pointing toward changes to the "flow Targets," and will force NOAA Fisheries into new litigation if the agency attempts to revise the Targets.

In effect, there is no desire by key parties to adopt the best available science for management purposes.

Table 1:

The Salmon Recovery Issue:
A Chronological Outline

Pre-1800's	Native American tribes harvest 18-24 million pounds of salmon and steelhead annually.
1823	First commercial harvesting of salmon by white settlers.
1870's	Hatcheries are first constructed in the Columbia Basin to enhance fish runs that had been severely depleted by over fishing. Nearly 80 anadromous fish hatcheries have been built by the federal government in the Columbia Basin.
1871	First regulations to restrict fishing are enacted.
1879	Fishwheels are first used on the Columbia to enhance other traditional forms of harvesting. The wheels used the river current to catch and deposit thousands of salmon in boxes with a minimum of effort. Seventy-six fishwheels were in operation by 1899, with some fishwheels able to catch as many as 100,000 pounds of salmon each year. As fishing regulations tightened, fishwheels were banned in 1926.
1883	Commercial harvest of Chinook salmon in the Columbia River peaks.
1890	Chinook runs continue to decline and canneries turn to smaller species of fish.
1911	Sunbeam Dam is completed, creating an almost complete blockage to upstream passage of Chinook and sockeye. Attempts to ladder the dam in 1919-1920 failed when the fish ladder collapsed.
1914	Sockeye access to Alturas Lake is blocked by the Breckinridge Irrigation Diversion.
1920	Annual fish harvest on the Columbia River is 34 million pounds. Commercial harvest of Chinook continues to decline steadily.
1934	Part of Sunbeam Dam is dynamited to allow fish passage, although a partial barrier remains.
1937	The Bonneville Dam is dedicated by President Roosevelt to provide access to reasonable power for residents throughout the Northwest. Between the dam's completion in 1938 and 1970, an additional 15 dams were erected on the Columbia River. Currently, the Columbia and its tributaries are home to more than 190 dams.
1954	Stanley Lake is poisoned and a barrier to prevent adult salmon from returning is installed. Pettit Lake is poisoned and a barrier installed in 1961. Yellow Belly Lake is poisoned and still toxic in 1963 when a barrier is installed.

1968	The Army Corps of Engineers begins a program to collect juvenile fish at several dams on the Columbia and transport them down the river. During 1986, the Corps transported 13.5 million fish by barge and truck.
1970-1980	Commercial catch of salmon and steelhead from the Columbia River declines from 12 million pounds to 1.2 million pounds in 1983.
1973	Endangered Species Act is passed by Congress to protect species of plants and animals which the government decides are in trouble and possibly on the verge of extinction. The Act requires federal agencies to develop programs to help threatened or endangered species.
1974	The right of Tribal fishermen to keep half of the salmon and steelhead passing the Bonneville and McNary dams in the lower Columbia River, was decided February 12, 1974 by Judge George Hugo Boldt in *United States vs. Washington,* known as the Boldt Decision. (In 1979 the U.S. Supreme Court overturned the Boldt Decision, but upheld the general principle as well as the 50/50 salmon and steelhead allocation to Tribes).
1978	The National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service begin a review of upper Columbia River and Snake River salmon and steelhead for potential listing as threatened or endangered species.
1980	96th Congress passes several key legislative measures aimed at protecting the salmon resource. The most far-reaching effort was the Northwest Electric Power Planning and Conservation Act, more commonly known as the Northwest Power Act. Through the act, the Congress created the Northwest Power Planning Council composed of representatives appointed by governors in Idaho, Montana, Oregon, and Washington. One of their two charges is to protect, mitigate, and enhance regional salmon runs.
1980-1990	BPA and Northwest utilities invest $1 billion, directly and through revenues lost, to provide added water flows to facilitate fish passage at dams. Among the results is an increase in the number of adult salmon and steelhead returning to the Columbia River: an increase that brought returns from 2.5 million to 2.8 million.
1981	The Northwest Power Planning Council created the Columbia River Basin Fish & Wildlife program as the first step toward protecting salmon runs. Their first goal was trying to double the then current run from 2.5 million to 5 million.
1987	Over 155 million hatchery fish are released into the Columbia Basin.
March 1990	The Shoshone-Bannock Indian Tribes of southeastern Idaho file a petition with the National Marine Fisheries Service to protect Snake River sockeye by listing them as an endangered species.
June 1990	Oregon Trout and several environmental groups petition NMFS to list wild Snake River Chinook and lower Columbia River wild coho as threatened or endangered.
October 1990	The Salmon Summit is initiated by Oregon Senator Mark Hatfield. Thirty Northwest representatives of state and federal agencies, Indian tribes, conservation groups, irrigators,

	fishing interests, and utilities meet to come up with a comprehensive recovery plan for the petitioned salmon which could be presented to NMFS for consideration.
1991	Snake River sockeye salmon listed as endangered species.
Nov. 1991	NMFS proposes three salmon stocks for listing as endangered species including the Snake River sockeye, spring-summer Chinook, and fall Chinook.
Dec. 1991	NMFS lists sockeye salmon as an endangered species. The status of the other proposed stocks are pending.
1992	Snake River fall, spring and summer run Chinook listed as threatened species.
Feb. 1992	A seven member team is appointed by NMFS to develop the Sockeye Salmon Recovery Plan. The team includes five fisheries scientists, a hydraulic engineer, and a hydropower engineer. Their target date for releasing the plan is July 1992.
1994	Kootenai River white sturgeon listed as endangered species.
1997	Snake River Basin and Upper Columbia River steelhead listed as threatened species.
1998	Lower Columbia River steelhead and Columbia Basin bull trout listed as threatened species.
1999	Lower Columbia River and Upper Willamette River Chinook listed as threatened species; Upper Columbia River spring run Chinook listed as endangered species; Columbia River chum listed as threatened species; and Upper Willamette and Mid-Columbia steelhead listed as threatened species.
2004	Lower Columbia River coho listed as threatened species.
Dec. 2004	The Pacific Northwest spent $7 billion in salmon recovery efforts. Over the past 25 years $7 billion has been spent on salmon/steel head enhancement. Annual spending has reached $700 million, all paid by Bonneville Power Administration customers
Jan. 2005	A determination as to when a species, such as salmon and steelhead, is no longer endangered remains to be defined.
	Harvest rates of endangered species continue as recovery remains undefined.
	The indiscriminate gillnetting by both Tribes and non-Tribes continues.