

Fish Runs Improving: Families and Businesses Invest Billions

Pacific Northwest families and businesses are spending billions of dollars to make the federal dams more fish-friendly and restore salmon habitat in the Columbia Basin. In fact, these endeavors represent the largest restoration effort anywhere in the nation for a protected species and are paid for by families and businesses through their electric bills. Fortunately, these efforts are bearing fruit. Over the past decade we have seen a dramatic improvement in fish runs, including salmon runs that have been listed for protection under the Endangered Species Act. Last year saw an overall record return of more than 2.5 million adult salmon returning to Bonneville dam, the most seen since the dam was built. Here are the facts surrounding salmon returns:

- Today, there are more fish in the Columbia River than at any time since the first dam was built at Bonneville in 1938. Many are hatchery fish, but wild populations are trending upward too.

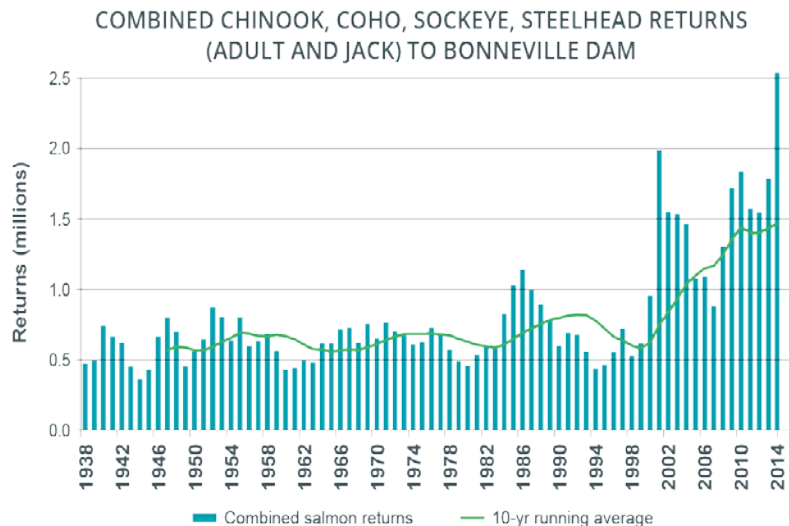
- NOAA Fisheries responsible for protection of listed salmon says that survival rates through the hydro system are now approaching levels seen in rivers without dams.

- Salmon are migrating more safely through the eight large federal hydro projects on the Columbia and Snake rivers due to the installation of new technologies, like fish “slides”. Survivals at the dams are high, averaging 97 percent collectively.

- Overall, juvenile survival past the dams is three times higher today than it was 30 years ago.

- In 2014, over 2.5 million adult salmon and steelhead passed Bonneville Dam, setting new overall record levels since counts began in 1938. Of the fish returning in 2014, the sockeye, fall chinook, and coho were record or near-record runs, including the Snake River stocks.

- Snake River sockeye, on the brink of extinction in the 1990s, have been rebuilding. Nearly 3,000 sockeye passed Lower Granite Dam in 2014, trumping the previous record of 2,201 in 2010. This included a healthy contingent of wild fish. Just over 1/3 of the fish returning to central Idaho were unmarked, indicating naturally spawning origins.



Why Runs Fluctuate

Dramatic fluctuations in salmon runs occur from year to year. Yet the dams these fish traverse have been in place for over 70 years. This has led researchers to focus on complex differences in ocean conditions as the primary reason for the ups and downs in salmon runs.

Researchers have been measuring conditions in the Pacific Ocean where juvenile Columbia River salmon live and grow. They found that water temperature, the amount of food available, and the number of predators has a much greater effect on salmon and steelhead stocks than dams on the Columbia River. In fact, ocean research results presented to the Northwest Power and Conservation Council in March, 2012, concludes survival estimates indicate most spring chinook mortality happens at sea. About 78 percent of all mortality occurs in the ocean compared to about 22 percent through the hydro system.

The survival of juvenile salmon and steelhead passing through the Columbia River is similar to or better than that observed in other Pacific Coast river systems. NOAA Fisheries research on the entire Columbia River hydropower system showed that the estimated 2014 survival for yearling spring, summer, and fall chinook salmon was 49.7% (just under the 10 year average of 52.1%) and steelhead 77.1% (well above the 10 year average of 50.4%). In the Fraser-Thompson River system in British Columbia, where there are no dams, estimated survival for yearling Chinook ranged from 14 percent to 34 percent, and steelhead survival ranged from 21 percent to 39 percent.

For more information on the actions being taken helping large returns see:

<http://nwriverpartners.org/wp-content/uploads/2014/03/Salmon-and-Hydropower-Power-System-Keep-Salmon-Safe1.pdf>

Northwest RiverPartners is a partnership of farmers, electric utilities, ports, and large and small businesses in the Pacific Northwest. We are dedicated to ensuring the Columbia and Snake remain living, working rivers to benefit families and businesses in the region.

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