



US Army Corps
of Engineers®
Walla Walla District

FISH MYTHS AND FACTS

Myth:

Dams are the main cause of the decline in salmon and steelhead runs in the Columbia and Snake Rivers.

Fact:

While dams are a contributing factor, the decline of salmon and steelhead in Northwest rivers is a complex problem. It is not possible to point to one specific cause or solve it with one specific action. Historically, these runs have been affected by overfishing, poor ocean conditions, reduced spawning grounds, dams and reservoirs (federal and non-federal), and overall habitat degradation. Several of these conditions continue today. Several major dams in the Columbia River Basin have cut off fish access to spawning grounds, but others have successful fish passage facilities. Great strides have been and are being made to improve fish passage at dams, habitat conditions and harvest and hatcheries management. In the past three years, Columbia and Snake River total adult salmon and steelhead returns have been record runs, the best in decades and some of the best since 1938. Improved ocean conditions deserve some of the credit, but the efforts of many agencies, organizations and individuals in the region are also contributing.

Myth:

On the lower Snake River, the choice is fish or dams.

Fact:

It is not a choice between dams or salmon. The federal agencies operate the dams in accordance with a NOAA Fisheries Biological Opinion for salmon and steelhead, providing spill for fish, augmenting flows for fish migration and temperature control, and operating the juvenile fish transportation system. We provide for multiple uses of the system, such as flood control, power generation, navigation, irrigation and other uses while doing what we can to improve fish passage through the system of dams and reservoirs. We are working together with the region to do what we can at the dams and to improve habitat conditions in the river, tributaries and the estuary and find better ways to manage hatcheries and harvest.

Myth:

Numbers of salmon have been dramatically declining since the dams on the lower Snake River were built. Over this century, Columbia and Snake River salmon runs have declined 90 percent.

Fact:

In-river survival of Snake River juvenile salmon today is comparable to what it was in the late 1960s when there were only four dams in the lower Columbia and Snake River system. Since the dams were first built, numerous improvements at the dams for fish passage and water quality have dramatically increased fish survival. For the past three years, there have been record salmon runs on the lower Snake and Columbia rivers – with the dams in place. The major decline in Columbia and Snake River salmon and steelhead runs occurred prior to the construction of the first Corps main stem dam – Bonneville Dam near Cascade Locks. For comparison, in 1938 it estimated that 1.67 million salmon and steelhead returned to the mouth of the Columbia River. In 2000, an estimated 1.69 million salmon and steelhead returned to the mouth of the Columbia River.

Myth:

More than 90 percent of juvenile fish are killed by dams as they travel downriver. The survival rates for adults traveling upriver are also low.

Fact:

The four lower Snake River dams have some of most effective fish passage built into Pacific Northwest dams. Average survival past the dams for ocean bound juveniles is more than 95 percent per dam. For adults, it is more than 98 percent for the entire system.

Myth:

The juvenile fish transportation by barge and truck is a failed program.

Fact:

NOAA Fisheries studies have shown that transported wild juvenile salmon and steelhead return as adults at a higher rate (around 20 to 80 percent for chinook and steelhead, respectively) than in-river migrating fish. Also, in a low water year, such as 2001, when there is no spill to pass fish through the lower Snake River Dams – transporting the juvenile fish by barges and trucks is preferable to turbine passage and results in enhanced survival.

Myth:

The four lower Snake River dams are costly to operate. The navigation locks are subsidized and there is no return on the investment.

Fact:

The dams provided more than \$500 million in annual revenue from power production during fiscal year 2003. The cost to operate and maintain the District's dams and locks that year was \$23.4 million. This includes all fish facilities and the juvenile fish transportation program. Intangible benefits include reduced air pollution from the use of renewable energy.

Myth:

It is cheaper to breach the four lower Snake River dams than it is to continue to operate them.

Fact:

It is estimated that it would cost more than \$1 billion to implement dam breaching and there would be a loss of benefits from power, transportation and navigation, estimated at more than \$500 million annually.

Myth:

Dredging is bad for fish.

Fact:

Dredging and disposal of dredged material may have minor, short-term, negative impacts to aquatic life in the dredging and disposal area during the activity period. With regard to endangered species, the Corps consults with NOAA Fisheries to ensure their operations and maintenance activities will not jeopardize the salmon species. However, the Corps uses the most fish-friendly dredging equipment possible, plans dredging at a time of year when the fewest fish are expected to be in the dredging areas, and implements strict monitoring conditions for turbidity and water chemistry parameters to reduce possible impacts. Prior to dredging any areas that might be used by salmon as spawning areas (i.e. the downstream navigation lock approaches), the Corps conducts surveys to determine if any redds (nests that salmon lay eggs in) are in the area. The Corps does these surveys even though studies have indicated that most of the areas to be dredged is not suitable for salmon spawning. In addition, the Corps plans to use most of the dredged material for beneficial uses, including the improvement of fish habitat.

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