

## **FACT SHEET**

### **Lower Snake River Dams**

September 17, 2016

This Fact Sheet contains information about the four Lower Snake River (LSR) dams. If you prefer misinformation that supports “saving our dams,” check out the websites of the Walla Walla District of the Corps of Engineers, or the sites of local ports and special interest groups and associations.

#### **Hydropower**

The 4 LSR dams provide only 3% of the Pacific Northwest’s total power production and just 6.5% of the Northwest’s hydropower.

The Northwest power grid currently enjoys a 16% surplus of power, which the Northwest Power Council projects will continue over the next 20 years. This surplus power is nearly 5 times the average annual output of the 4 LSR dams. The Council expects all increased demand over this time period will be met through conservation alone.

Wind power now produces more than three times as much energy as all four LSR dams.

The LSR dams contain 24 turbines, each with a projected life expectancy of 35-45 years. Nine turbines will be 45 or more years old by 2016, twelve more will reach that age over the following ten years. The first three turbines are now being rehabilitated at a cost exceeding \$100 million.

No energy production is environmentally friendly that permanently floods 30,000 acres of prime riverine habitat with resulting losses of over 150,000 birds and mammals and threatens endangered salmon, steelhead, bull trout, and southern resident killer whales with extinction,

#### **Commercial Navigation**

Over the past 15 years, freight transportation on the LSR has declined by 70%, while container shipping by barge has declined by 99%. Barges are no longer used to ship lumber, logs, or paper.

In 2002 the Corps’ Walla Walla District identified 5 categories of freight and projected their volume on the LSR at 4 benchmark years. The Corps’ projections were grossly overstated for every category in every benchmark year.

The Corps of Engineers categorizes the lower Snake River as a “waterway of negligible use.” If freight volume doubled, the river would remain a “negligible use” waterway.

## Threatened and Endangered salmon and steelhead

According to Fish Passage Center data, from 1999 through 2013 the average survival rate for wild Chinook salmon through Snake and Columbia River dams and reservoirs was 54%. For wild steelhead, the survival rate was 45%. These survival rates decline even further with post-Bonneville Dam avian predation. Finally, *delayed mortality*—the loss of juvenile fish in the Columbia estuary caused by the rigors of dam and reservoir passage—takes an additional toll. A reasonable estimate for total juvenile fish survival is 35%-40%.

In 2013, NOAA Fisheries acknowledged that no fish passage improvement had occurred for many years by stating, “Chinook survival through the hydropower system has remained relatively stable since 1999 with the exception of lower estimates in 2001 and 2004”—this despite the expenditure of over \$700 million on just the 4 lower Snake River Dams on so-called fish passage improvements. In other words: no improvement. The fish remain imperiled, as do Southern Resident Killer Whales.

While “system improvements” have clearly been a failure with respect to over-all smolt survival, the true measure of successful recovery of threatened and endangered fish species is the smolt-to-adult return (SAR) ratio. Mere survival of wild fish runs requires a minimum 1% SAR, and recovery of Snake River salmon and steelhead requires a 2%-6% SAR. The SAR for wild Chinook salmon from 1993-2013 averaged .89%. The return exceeded the minimum 2% SAR needed for recovery during only two of those 20 years. Fall Chinook SARs are lower still. Idaho’s Snake River sockeye are on the brink of extinction.

The year 2015 was an ecological disaster in the Columbia River basin, with the deaths of over 250,000 adult Chinook salmon. The loss of Idaho’s returning sockeye was nearly 100%. NOAA Fisheries estimated wild juvenile Chinook mortality through just the 4 lower Snake River dams at 49%. NOAA predicts decreasing snow pack in the Snake River basin, lower river flows, higher ambient and water temperatures—all part of climate change. Juvenile fish and returning adults all suffer from these conditions. Dams and reservoirs increase water temperatures, delay fish travel times, and create ideal conditions for juvenile fish predators.

No Snake River threatened and endangered salmon or steelhead species is on a path to recovery.

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