

SETTING THE RECORD STRAIGHT: THE FOUR LOWER SNAKE RIVER DAMS' IMPACT ON EASTERN WASHINGTON

CORRECTING MISINFORMATION PRESENTED DURING THE
HOUSE COMMITTEE ON NATURAL RESOURCES FIELD HEARING

PASCO, WASHINGTON • SEPTEMBER 2018

BARGING/NAVIGATION

"To move the same amount of wheat currently barged on the river system would require 137,000 semitrucks or 23,900 railcars, leading to increased fuel consumption, increased emissions, and increased wear and tear on our transportation infrastructure."

—Marci Greene | President, Washington Association of Wheat Growers

Breaching the Four Lower Snake River Dams (4LSRD) will not add trucks to the roads since all but 3 small grain elevators on the Lower Snake River are also served by rail. A report by economists Ball & Casavant in 2001 stated, "...truck/rail is 24% more fuel efficient than truck/barge when analyzing the transport of wheat in Eastern Washington." It was concluded that the closure of commercial river navigation on the Lower Snake River would save 12.1 billion BTU* of energy use each year.¹ These efficiencies have further improved since the report was written. Farmer cooperatives built two 100-car unit train grain loaders and are building a third near the river. The rail lines along the Lower Snake River have been upgraded allowing cheaper shipments from the Lewiston area to barge loading facilities on the Columbia or to grain terminals in Portland, Oregon. Petroleum shipments and 30-40% of the grain have already shifted to rail. Washington's "Grain Train" has grown to over 110 cars. In short, **rail shipments are more efficient, not affected by lock closures, add only slight increases to rail traffic, and are not subsidized by taxpayers.** Regarding the concern of increased emissions, reservoirs emit methane, which is 85% more potent than CO₂. **The 4LSRD reservoirs emit about 45,000 equivalent tons in CO₂ from methane.**

1. Ball, Trent and Casavant, Ken; "Impacts of a Snake River Drawdown on Energy and Emissions Based on Regional Energy Coefficients," University of Washington Department of Civil Engineering and Washington State University Department of Agricultural Economics, 2001

* British Thermal Unit. One BTU is equal to the amount of energy used to raise the temperature of 1 lb of water, 1 °F.

HYDROPOWER/ECONOMICS

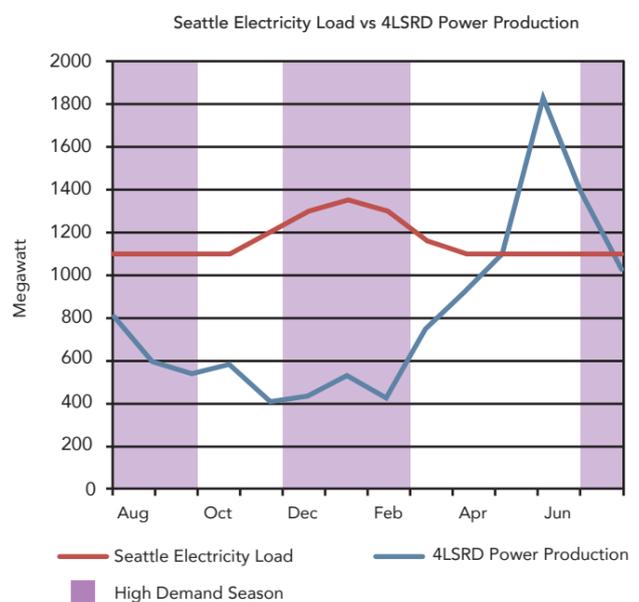
"These four dams can power nearly two million homes, or a city the size of Seattle, and provide a reliable base load; important energy to meet BPA's peak loads during the hottest days in the summer, when the wind doesn't blow, or the coldest part of winter, when the sun doesn't shine."

—Cathy McMorris Rodgers | US Congresswoman, WA 5th Congressional District

The US Army Corps of Engineers (Corps) states **there is not enough power to reasonably provide sufficient electrical needs to 2 million homes.** Based on the actual production of power produced by the Snake River between 2010-2015, **"1.87 million customers would mean each would only use 294 kWh/month which isn't reasonable or in line with Northwest averages."**¹ Therefore, the 4LSRD are unable to support the electricity demand of Seattle annually.

Over the past 93,000 hours of power production from the 4LSRD, only 2 hours were used by Bonneville Power Administration (BPA) customers; indicative of the large amounts of surplus hydropower, which are sold at a loss to rate payers. Removing the 4LSRD will save money that BPA can apply to other hydropower projects. **These dams are twice as expensive to operate as the Corps' Chief Joseph Dam on the Columbia,** which produces twice the amount of power as the 4LSRD combined.² The graph at right shows that the 4LSRD has the lowest power production during the summer and winter months, when electricity in Seattle is most in-demand.

1. USACE, Walla Walla District | Residential Use • 2. BPA | "2017-2030 Hydro Asset Strategy," page 23



AGRICULTURE/ECONOMICS

"The point is, you have to have water in order to irrigate our diverse agricultural economy. If you take that away that would have a huge, huge impact on our economy." *—Doc Hastings | Former US Congressman, WA 4th Congressional District & Former Chairman, Natural Resources Committee*

Of the 4 reservoirs on the Lower Snake River, only 1 is used by 13 farmers for incidental irrigation via Ice Harbor's reservoir. Once breached, irrigation pipes and pumps can be added to reach the lower water level.¹ This cost can be absorbed by BPA as mitigation costs for breaching. The Corps' 2002 Feasibility Report/Environmental Impact Statement (FR/EIS) provided a gross over estimate of \$291 million to modify the irrigation system as a result of the drawdown of Ice Harbor pool; this was twice the assessed value of the farmland. The conclusion was that these farmers would be bought out. In recent months, water supply engineers have recalculated the cost of irrigation modifications and found that in current year dollars it would cost \$19 million. **Available pipe and pump sizes inevitably lead to larger system capacities, therefore these modes will allow for the irrigation of an additional 5,000 to 7,000 acres, further driving up farm employment and income in Eastern Washington.**

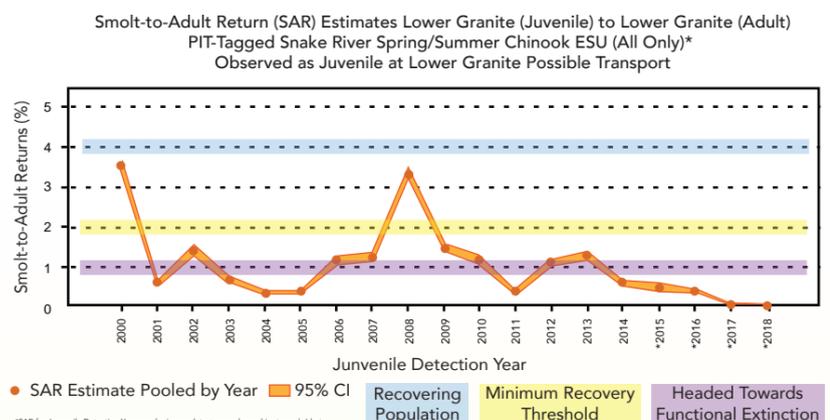
1. Sampson, Rob; "A brief review of the impacts to irrigated farmland from breaching the four dams on Lower Snake River," 2018

SALMON RECOVERY

"Some argue that the Four Lower Snake River Dams in particular have negatively impacted migratory fish, yet the data shows average fish survival rates of 97%." *—Cathy McMorris Rodgers | US Congresswoman, WA 5th Congressional District*

We are not recovering these fish, despite the Corps spending over \$1 billion to improve fish survival over the dams. Actual mortality of each dam and reservoir averages 10%, equaling roughly 40% across all 4 dams and reservoirs; therefore, the actual survival rate is about 60%.

Smolt-to-Adult Ratios (SAR) measure the survival of Chinook and determines if they are recovering as a species. The target is to be above 6%, but **the SAR have been declining well below 1% for the last 7 years** and have averaged around 1% for the last 30 years; see the chart at right. Coupled with this, **daily fish counts continue to be below the 10 year average.** According to the 2002 FR/EIS, **with breaching we can achieve 11% SAR for Spring/Summer Chinook and 31% SAR for Fall Chinook;** breaching restores up to 70 miles of Fall Chinook habitat. These high survival rates show that these fish are able to rapidly recover.



FLOOD CONTROL

"The Columbia and Snake Rivers and the federal Columbia River Power System provide...flood control for our local communities." *—Dan Newhouse | US Congressman, WA 4th Congressional District*

The fact is, "The four dams are all run-of-river facilities, which means that they...pass water through the dam at about the same rate as it enters the reservoir. These dams were not built to control floods."¹ They do however substantially increase the flood risk for Lewiston, Idaho.

1. USACE, Walla Walla District; "Improving Salmon Passage, Lower Snake River Juvenile Salmon Migration FR/ EIS," February 2002