



# COIN Position Paper on the **Lower Snake River Dams** August 2021



## **Introduction**

Between 1962 and 1975 four dams were constructed on the lower Snake River. They were controversial from the beginning. Existing dams in the Columbia River system had already diminished the wild salmon and steelhead populations significantly and attempted fish mitigation projects were both expensive and unproductive. Since the 1990's there have been 30 years of negotiation and litigation to address salmon survival. However, power, agricultural and business interests have prevailed.

The dams still stand; the **wild chinook, sockeye and coho salmon are facing extinction**. Without the dams, these fish have a chance to survive. Early this year Rep. Mike Simpson, Idaho Republican, came to a similar conclusion. He launched a \$33 billion proposal to breach the dams. The upside is that it reignites the discussion and takes into account the need for mitigation to assist the affected interests. The downside is that it calls for a 35-year litigation moratorium for Clean Water Act and Endangered Species Act violations throughout the Columbia River Basin. It also extends federal licenses on the Columbia River dams for up to 35 years. Simpson maintains this legislative effort will take TEN or more years to implement before the dams are breached!

**It is unlikely the fish can wait that long.** We believe a more immediate breaching of the dams is not only feasible but necessary. The following statement outlines our position. Please consider supporting it.

**We support urgent breaching of the four Lower Snake River Dams (LSRDs). The wild salmon affected by these dams are headed toward extinction. Recovery of the imperiled salmon and steelhead, listed in the Endangered Species Act (ESA), cannot be accomplished without removing the four dams.<sup>1</sup> Despite three decades and billions of dollars spent on fish mitigation, wild populations have not experienced gains since they were listed under the ESA. Immediate action is necessary before these populations reach the point of no return.**

## **Historical Salmon Population**

The Snake River Basin was historically the most productive region in the Columbia River System, producing 40% of the spring/summer Chinook and 55% of its steelhead. Estimates of the size of the predevelopment salmon and steelhead population were 1.4 million fish.<sup>2</sup> In 1995 a low of only 2200 chinook salmon passed Ice Harbor Dam.<sup>3</sup> Breaching the dams would enable those fish to thrive in pristine high-elevation habitat that will become even more important as our climate changes. The Snake River has, by far, the greatest potential for wild fish recovery of any watershed in the Columbia Basin.<sup>4</sup> An added value to breaching the dams will be the improvement of Pacific Northwest Orca populations that rely primarily on Chinook salmon for their diet.

## **Tribal Concerns**

We must also consider the rights of the Columbia River Tribes. "The tribal cultures in the Columbia River Basin could rightly be called Wy-Kan-Ush-Pum or 'Salmon People' for how completely these sacred fish shaped their culture, diets, societies and religion."<sup>5</sup> In treaties established in 1855, Columbia River tribes reserved the right to harvest fish within their respective reservations and at "all usual and accustomed fishing places" outside the reservations. When the government decided to build dams in their traditional fishing grounds, the tribes had almost no say in it. Since then, they have had to fight for every fishing right and have watched as the fish stocks decline. Salmon recovery through the removal of the LSRDs is vital to honoring the treaties and responsibilities to the Northwest Tribes.

## **Costs**

Bonneville Power Administration (BPA) has spent over \$17 billion on fish mitigation, much of that in the Snake River Basin; in addition, the Army Corps of Engineers has spent \$1 billion on fish passage "improvements" at the four dams. These efforts have not stopped the decline of the fish. The smolt-to-adult ratio (SAR) is the percentage of smolts that survive and return to spawn. SARs of 2% are required for replacement alone; SARs of 4-6% are required for recovery. For the last 10 years, SARs have dropped below 1%. The vast majority of fish biologists believe breaching the dams is the best solution to saving these endangered fish.

According to Jim Waddell, (Civil Engineer, US Army Corps of Engineers, retired) these dams have earthen sections that can be hydraulically breached immediately providing natural river bypass around the remaining concrete structures. The breach cost is estimated to be \$279 million, a small price to pay for the recovery of these iconic salmon and steelhead.<sup>6,7</sup>

In most years, the costs of operating the LSRDs outweigh the value of the electricity produced; these costs are then passed on to the ratepayers.<sup>8</sup> For example, maintaining the aging infrastructure of these four dams represents a significant component of the current BPA debt burden. Furthermore, the case for keeping the LSRDs has weakened as the growing use of solar and wind energy supplants hydroelectricity as the Pacific Northwest's cheapest sources of power.<sup>9</sup> Thus, regardless of the effect on fish, there is justification for breaching the dams on economic grounds and it is unlikely to cause an energy shortage.

### **Mitigation**

Clearly, breaching the LSRDs will affect a variety of stakeholders in the region. Improvements and expansion of the recently upgraded railroad infrastructure will be necessary to replace the current barge transport system. Other immediate mitigation concerns include extended irrigation piping and pumps. Once the immediate breaching and mitigation concerns are complete, a plan could be developed by Pacific Northwest legislators to address further infrastructure investments noted in Representative Simpson's "Concept."

According to recent studies, direct economic benefits of breaching the LSRDs range from 4-10 times the cost of breaching and mitigation.<sup>8</sup> Furthermore, when non-use values are taken into account, benefits of a restored natural system and reduced extinction risk of wild salmon outweigh the net cost of removing the dams.<sup>10</sup> The economically and environmentally sensible option of immediate removal of the LSRDs will not only provide the possibility of wild salmon recovery, but also a chance for stakeholders to forge a collaborative infrastructure plan for the reclaimed Lower Snake River Valley and region.

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### **References Cited**

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<sup>2</sup> [https://docs.idahopower.com/pdfs/relicensing/hellscanyon/hellspdfs/techappendices/Aquatic/e31\\_02\\_ch06.pdf](https://docs.idahopower.com/pdfs/relicensing/hellscanyon/hellspdfs/techappendices/Aquatic/e31_02_ch06.pdf)

<sup>3</sup> [http://fishandgame.idaho.gov/ifwis/cwcs/pdf/Chinook%20Salmon%20\(Snake%20River%20spring\\_summer%20run\).pdf](http://fishandgame.idaho.gov/ifwis/cwcs/pdf/Chinook%20Salmon%20(Snake%20River%20spring_summer%20run).pdf) page 2

<sup>4</sup> <https://www.tu.org/scientific-case-lower-snake/>

<sup>5</sup> <https://www.critfc.org/salmon-culture/we-are-all-salmon-people/>

<sup>6</sup> <https://damsense.org/wp-content/uploads/2020/12/Mitigation-Plan-2020.pdf>

<sup>7</sup> <https://damsense.org/wp-content/uploads/2021/01/2020-state-of-the-snake.pdf>

<sup>8</sup> [https://www.researchgate.net/publication/302505195\\_National\\_Economic\\_Analysis\\_of\\_the\\_Four\\_Lower\\_Snake\\_River\\_Dams\\_a\\_Review\\_of\\_the\\_2002\\_Lower\\_Snake\\_Feasibility\\_Report\\_Environmental\\_Impact\\_Statement\\_Economics\\_Appendix\\_I\\_Executive\\_Summary](https://www.researchgate.net/publication/302505195_National_Economic_Analysis_of_the_Four_Lower_Snake_River_Dams_a_Review_of_the_2002_Lower_Snake_Feasibility_Report_Environmental_Impact_Statement_Economics_Appendix_I_Executive_Summary)

<sup>9</sup> <https://e360.yale.edu/features/on-the-northwests-snake-river-the-case-for-dam-removal-grows>

<sup>10</sup> [https://static1.squarespace.com/static/597fb96acd39c34098e8d423/t/5d41bbf522405f0001c67068/1564589261882/LSRD\\_Economic\\_Tradeoffs\\_Report.pdf](https://static1.squarespace.com/static/597fb96acd39c34098e8d423/t/5d41bbf522405f0001c67068/1564589261882/LSRD_Economic_Tradeoffs_Report.pdf) page 137