

Executive Branch Considerations for Near Term Removal of the Lower Snake River Dams

Biological and economic evidence strongly supports the breaching of the four lower Snake River dams. However, inaccurate information perpetuated by those with the strongest interest in maintaining the status quo created four illusory reasons preventing a near term dam removal/breach action. A fifth reason that prevents near term breaching can be resolved by political will and leadership.

1. Congress does not have to authorize a breach. The Executive Branch Has Inherent Authority to Breach the Lower Snake River Dams.

Statements made by the regional offices of the U. S. Army Corps of Engineers (USACE), the National Oceans and Atmospheric Administration/National Marine Fisheries Service (NOAA/NMFS) and the Bonneville Power Administration (BPA), claim that continued operation of the lower Snake River dams is “mandated” or “directed” by Congress and therefore only Congress can authorize breaching. This is incorrect, but nevertheless, a view repeated for so long it has become gospel, even to the point that NOAA/NMFS will not consider breaching a Reasonable and Prudent Alternative (RPA) no matter how dire the consequences to threatened and endangered salmon, orca and other species since it erroneously believes Public Law 87-874, 1962, “directs the COE to maintain a 14 feet deep navigation channel” (NMFS Biological Opinion 14 November 2014). This is not what the authority says, it says the Corps is Authorized to “establish” a channel to a set of dimensions assuming the economic benefits are met.

Congress has given these agencies, especially the USACE, the responsibility to insure that authorized projects result in an economic benefit to the nation and do not damage the environment or general social well being. Congress further requires the Secretary of the Army to review the operations of completed projects to insure their continued economic and ecological viability. The Corps knows how to exercise its fiduciary responsibility. For example, it recently placed the Willamette Lock and Dam on the Willamette River in Oregon into a “caretaker” status. Indeed the Corps ceased, for economic reasons, the operation/maintenance of the “authorized” Snake River Navigation Project from the early 1920’s until the completion of the four Lower Snake River dams in the 1970’s.

2. Congress does not have to appropriate new monies. Existing Funding Sources Can and Should Be Used to Breach the Dams

Approximately 91% of all costs of the lower Snake River dams are allocated to the hydropower purpose of the dams, with the remaining costs allocated to navigation. Decommissioning the dams, whenever that occurs, is thus largely the responsibility of BPA. BPA funding comes from the sale of electricity to ratepayers at a cost sufficient to pay for hydropower costs, including mitigation for fish losses and for

preventing the extinction of threatened and endangered salmon and steelhead. BPA is also responsible for repaying the U.S. Treasury for the cost of dam construction. BPA is granted authority under the Northwest Power Planning and Conservation Act (PL96-501) section 4(h)10(c) to apply credits against their U. S. Treasury debt for “fish mitigation” as a result of “non power” related activities, such as spilling water to facilitate fish passage instead of generating hydropower. Breaching is maximum spill. Given this, and noting the failure of the \$700 million spent on structural improvements and another \$2-300 million on transportation to improve juvenile fish bypass over the last 15 years, with little if any improvement in returning wild stocks, a far more Reasonable and Prudent Alternative for “fish mitigation” is breaching. Breaching is also one of the four alternatives covered in the 2002 Lower Snake River Feasibility Report/Environmental Impact Statement and thus is just as viable from a NEPA standpoint as the other Alternative chosen. Indeed, more so since, the selected Alternative, even with the addition of the Transportation Alternative features, has failed to accomplish the stated purpose in the EIS **and** the economic considerations that tilted the decision away from the Breach Alternative have been shown to be incorrect. This EIS is still the NEPA document covering the operations of the 4 lower Snake Dams. As such, it can be quickly updated since breaching was one of the covered alternatives. This work has largely been accomplished.

The economics clearly show that maintaining the four dams is not cost effective where as breaching has many times more benefits than costs. A just completed detailed reevaluation of all costs and benefits shows that keeping these four dams has a BCR of .15 to 1, and that breaching has a BCR of 4 to 1 and much higher if consideration is taken of the fact that the hydropower output is surplus to regional needs and does not need to be replaced. Returning the lower Snake River to normative conditions emerges as the most Reasonable and Prudent Alternative available. BPA could save money for its ratepayers by reducing its debt load, accomplished by paying 100% of the cost of breaching the LSR dams.

3. The USACE Overstated the Cost of Breaching by \$500 million

In 2002 the Walla Walla District (NWW) of the USACE estimated the cost of breaching (channel bypass) at nearly \$900 million in 1998 dollars, which ironically is slightly less than the Corps’ current budget to install the unsuccessful *System Improvements* on the four lower Snake River (LSR) and McNary Dams. However, just as NWW greatly understated the cost of keeping the dams in place, the NWW greatly overstated the cost of breaching. A more accurate estimate of the cost of breaching all four dams is \$255 million (98 dollars) or \$339 million in 2015 dollars. This amount, in current year dollars, spread over a four year breach window would be less than half the current USACE and BPA annual expenditures for the LSR dams and similar in magnitude to current credits by BPA against their Treasury debt. For instance, to breach Lower Granite the cost is approximately \$50 million as compared to credits of roughly \$100 million (some of these credits are based on spill on lower Columbia Dams). Additional savings from breaching include a

reduction in the costs of research, preparing biological opinions, and litigation expenses. These expenditures, themselves in the 100's of millions, over the last 30 years have fostered a comfortable set of bureaucratic relationships and jobs (in and out of Government) that have created a prodam culture incapable of unbiased analysis.

4. Breaching Provides Benefits and Investment Opportunities at Least Cost

Corrected costs for breaching and for the operation, maintenance, and repair of the four Lower Snake River dams, including fish mitigation, demonstrate that a \$70 million economic benefit that should have been associated with breaching in the USACE 2002 Lower Snake River Feasibility Report is today approximately \$200 million. Indeed, the 2002 decision to keep the dams was largely based on the false conclusion that it would cost the national economy an average annual \$267 million a year to breach, an error of \$337 million on an average annual basis. This comparison includes the Corps and BPA's stated value of LSR hydropower even though recent economic analysis shows this power is surplus and could be replaced by existing wind energy in Washington State that is idled by the generation of the lower Snake dams. It can also be made up by a combination of solar and open market power at a lower cost. In actuality, the power produced by the LSR dams is not needed and has already been replaced trice over by Northwest wind energy. The Power Planning and Conservation Council most recent plan shows that any increase demand over the next 10 years will be covered by conservation measures, which means surpluses will still exist even with removal of the four dams and coal fired sources.

Breaching the four LSR dams would provide a number of investment opportunities of significant importance to the Pacific Northwest.

Reinvestments of Federal and BPA Funding:

- Corps of Engineer funding could shift to higher value water resource projects such as Columbia River jetties, Puget Sound near shore restoration or Columbia River dams.
- BPA resources could shift to other federal Columbia River power system projects such as improving the reliability and efficiency of currently installed hydropower capacity. This in turn could offset the need to purchase fossil fuel resources during high demand periods during which lower Snake River dams are of little value.
- Federal, State and private sector funds creating, challenging and defending biological opinions could be applied to other federal and regional needs.
- Phasing out mitigation hatcheries for Lower Snake River dams, needed perpetually without dam breaching, could save \$27 million annually in current dollars. The labor portion of these savings could be redirected to state and tribal hatchery employees engaged in habitat restoration, cultural

resource protection and project monitoring. Increased tribal fishing jobs would ultimately offset these losses.

Investments that Generate Economic Development/Jobs:

- The costs of breaching paid through reductions in treasury debt are recovered in 3-4 years in recreational benefits alone, which are estimated to be \$200 million on an average annual basis. These benefits accrue mostly in eastern Washington and north-central and eastern Idaho, but include the San Juan Islands where whale watching alone is a \$60 million per year industry that will be severely impacted with the likely extinction of the resident killer whales unless breaching occurs.
- Federal grants or loans for rail improvements in eastern Washington amounting to approximately \$100 million over four years, would improve market diversity for farmers and likely offset any differences in truck-barge versus truck-rail rates. Rail investment has a cost-recovery period of 7-10 years. The alternative is continuing to spend \$10-\$14 million per year operating and maintaining the lower Snake River waterway forever. U. S. Department of Transportation TIGER grants could support rail improvements and support a State of Washington grain-train program already in place. Rail investment would also enable new business activity in the region, improved import of materials and export of value-added products.
- The increased value of commercial and tribal fisheries would further offset the cost of breaching. Improved fisheries could be based on sustainable wild Snake River fish populations not dependent on an expensive hatchery system.
- Irrigation, while not an authorized purpose of these dams, nevertheless draws from one of the four reservoirs, Ice Harbor. US Department of Agriculture assistance programs can help the fewer than 20 farmers involved through modifications of intakes and pumping stations along the river. Other assistance could help shift production from high water use crops such as hybrid poplar trees to vineyards or other crops requiring less water.

All the above investments create significant direct and indirect benefits beyond the ledger of National Economic Development accounting used by the Corps NWW in 2002. Tribes and communities along the lower and mid Columbia, lower Snake, Clearwater and Salmon rivers will see job growth supporting commercial fishing and recreational river use including angling. With the opening of 40,000 acres of project lands to high value low impact agriculture such as viniculture and orchards (present before the dams) and accompanying businesses such as restaurants, rustic lodges/inns, float based wine tastings, etc., also creates a powerful vision of what this 140 mile stretch of scenic river could be in terms of economic and a balanced quality of life. Balanced in the sense that significant and sustainable economic

development can take place on 4-5000 acres of this land while improving the riverine ecology as well as the overall ecosystem it supports. These economic benefits would be on top of and perhaps much greater than the recalculated recreational benefits for a free flowing river that would yield 3-4 Thousand jobs in lieu of the less than 700 federal dam workers, waterway workers and agricultural types that would be lost, or more likely shifted, if the dams were breached. And because this development will take place on lands likely transferred to the state of Washington it can easily yield \$20 million per year in fees to the Education budget of the State. A restored salmon run will also increase the population of the Southern Resident Killer Whale and thus the tourism of NW Washington beyond the \$60 million industry it is today. Conversely, failing to breach and restore these runs will negatively impact these populations and this important sector of the economy in that area will diminish along with those jobs.

Also of particular note will be the transformation of Lewiston, Idaho and Clarkston, Washington at the confluence of the Clearwater and Snake Rivers. Lewiston is fronted by two rivers, the Snake and Clearwater, yet remains isolated from its waterfront by levees required to accommodate the dams. Breaching lower Granite Dam will enable Lewiston to experience sustainable job creation and a quality of life unimaginable with the levees in place. In place of a handful of port and waterway-related jobs, hundreds of recreational, food service, lodging and retail jobs likely will quickly emerge. Improved road and rail transportation will encourage the already-growing light manufacturing industry. In addition, contrary to claims by the Corps' Walla Walla District, these levees were not built for flood protection. Indeed Lewiston is at greater flood risk every year by the presence of the reservoir and sediment buildup. The sediment requires conveyance dredging that the Corps predicts will cost over \$10 million per year in today's dollars. Not only will the taxpayers save money by eliminating perpetual dredging, Lewiston will be reconnected with its historical riverfront without fear of flooding.

5. Returning the Lower Snake River to its Natural Condition Is a Matter of Political Will and Leadership.

As noted in *House Document No. 704* (March 1938) and *USACE Special Report on Selection of Sites Lower Snake River* (March 1947), the USACE was unable to demonstrate economic benefits greater than costs on the Lower Snake River dams without then including fictional benefits for hydropower. In the 2002 *Lower Snake River Juvenile Fish Migration Feasibility Report* the USACE Walla Walla District significantly understated the costs of keeping the four lower Snake River dams and underestimated the benefits of dam removal. These dams have further had a devastating impact on wild salmon and steelhead, lamprey eels, Southern Resident Killer Whales, Native American tribes, and entire ecosystems.

While it is technically feasible from an engineering, policy and funding standpoint for the federal agencies in the Pacific Northwest to carry out breaching, this

corrective action is not likely to happen in any foreseeable future without senior Administration support and direction and at least tolerance of breaching from the Northwest delegation and the governor of Washington. Further, it is rarely the case that a water resource project comes to fruition without cooperation between the Administration and Congress. However, given the recent emergence of formerly suppressed science, cost/economic information, alternative energy development and public information that has revealed the need to act now, this is an historic opportunity for Presidential leadership. This action would impart a lasting legacy of decisive action recognized the world over—an act of leadership that will not only prevent extinction of the foundation species of one of the greatest ecosystems on earth, but an act that will also allow a bountiful recovery of wild salmon, steelhead, orcas, and lamprey, while saving money and creating jobs at the same time.

Economic, biological, and technical findings show that the four lower Snake River dams could quickly and easily be breached over a four-year period. It is therefore recommended that the President direct the US Army Corps of Engineers, through an Executive Order, Memorandum, or specific direction to the Secretary of Defense/Army Corps and the Department of Energy/Bonneville Power Administration, to begin drawdown of Lower Granite Dam no later than November 1, 2016 with breach and channel bypass modifications starting December 1, 2016. Breaching entails removal of the earthen portion of the dams and, in some cases, adjoining earthen abutments through mechanical removal followed by controlled hydraulic erosion once safe water elevations are reached. The concrete structures housing the power generation equipment, spillways, and lock chambers will remain in place. This schedule will result in the Lower Granite Dam being fully breached by 10 January 2017. Breaching the remaining three dams (Little Goose, Lower Monumental and Ice Harbor) will follow with one each year starting in the fall of 2017, although a faster schedule is technically possible. Funding of the breach operations should not incur any additional appropriations through the Corps of Engineers and will be paid for by BPA. BPA will receive credit against the US Treasury debt owed on the dams by the BPA, as noted above.

The President should simultaneously direct the Corps to use its Section 216 Continuing Authority, Review of Existing Projects, to initiate a Disposition Report that will explore scenarios for the ultimate utilization of project lands and any further mitigation measures necessary to protect the public interest, if any. Utilization will likely require the transfer of all or most of the 40,000 acres to the State of Washington who then could use lease or sale proceeds to offset state education budgets. It is strongly recommended that this report be done in partnership with the regional Tribes who have an important historical, natural and cultural resource connection to these lands.

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