

Lt. Col. Timothy Vail, Commander
Walla Walla District U.S. Corps of Engineers
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October 21, 2015

Dear Lt. Col. Vail:

We write to express concern over comments written by or attributed to you 1) at the October 3rd Free the Snake Flotilla, 2) in recent letters-to-the editor, 3) in recent news articles, and 4) on the Corps of Engineers' current website.

To a participant during the Flotilla event you noted your appreciation for such events as expressions of American democracy at work. We would hope you also tout an informed citizenry as crucial to democracy and consider it your mandate as a government official—particularly one of your rank and influence—to provide the public with accurate, data-verifiable information.

In light of that mandate, we challenge, as detailed below, several of your recent comments (in bold):

Survival rates for juvenile fish through spillway weirs range from 95-100%.

Singling out the juvenile fish survival of just one component of the hydropower system, in this case the one spillway weir at each dam, appears to be an attempt to convey to the public and elected officials that juvenile fish passage through the Lower Snake River results in no more than a 5% loss, and perhaps no loss at all. According to the National Oceanic and Atmospheric Administration (NOAA), the mortality through the Lower Snake River hydropower system in 2015 was 32% for hatchery and wild Chinook combined, and about 49% for wild stocks. This mortality is higher than the average throughout the years since the dams were built. In 2013, NOAA Fisheries acknowledged no fish passage improvement by stating, "Chinook survival through the hydropower system has remained relatively stable since 1999 with the exception of lower estimates in 2001 and 2004." Thus the \$600-\$700 million spent on what you called "technical fixes" has not improved anything.

The only true measure of recovery of threatened and endangered fish species is the smolt-to-adult return (SAR) ratio. Survival of the wild runs requires a minimum 2% SAR, and recovery of Snake River salmon and steelhead requires a 2%-6% SAR. Over the past eighteen years, the SAR for Snake River wild Chinook salmon has averaged less than 1% (.89%), which constitutes a clear path to extinction. The return exceeded the minimum 2% SAR needed for survival during only two of those years. Fall Chinook SARs are lower still.

High temperatures stressing fish this summer were not because of dams.

In 2015 an estimated 4,000 Endangered Snake River sockeye crossed Bonneville Dam, but only forty-four arrived at Idaho's Redfish Lake and the Sawtooth basin due largely to water temperatures. Scientists agree that dams increase water temperature through reservoir absorption of solar energy and the greater retention of heat by impounded waters when compared with free-flowing rivers. Looking ahead, scientists also predict higher summer heat and lower summer water flows in the future due to ongoing global warming.

The Environmental Protection Agency has identified the potential impact of each LSR dam on water temperature. Lower Granite reservoir can add up to 3.7 degrees Fahrenheit to the water temperature, Little Goose up to 3.9 degrees F; Lower Monumental 2.4 degrees F, and Ice Harbor 2.2 degrees F. Harm to anadromous fish begins with temperatures above 68 degrees. At 70 degrees these fish are stressed and at 72 degrees begin to die. If during a hot summer the four LSR dam reservoirs raised water temperatures by just one-third of their potential, those four degrees could make the difference between a normal run and many thousands of dead fish.

The various programs and improvement projects only require spending \$62 million of the \$200 million generated from energy production at the dams.

In 2015, the Walla Walla District's total budget is approximately \$227 million. The four lower Snake River dams represent a large portion of the District's responsibilities, well more than the 27% suggested in the above statement. Further, your \$62 million figure has been challenged in a 2015 independent analysis of the cost of keeping the lower Snake River dams in place completed by retired 35-year veteran civil engineer Jim Waddell, who was the Walla Walla District's Deputy District Engineer for Programs at the time the LSRFR was written. Waddell's independent analysis identified 2015 costs for the LSR dams of \$133.6 million.

Your cost figure further appears to ignore the expenditures the Bonneville Power Administration makes just on fish and wildlife mitigation for the damage done by the dams in the Columbia-Snake basin. In 2014 BPA reported \$782 million in mitigation costs. If, conservatively, even one-fourth of annual mitigation costs are spent on the LSR dams, mitigation expenditures related to the lower Snake River total \$195 million and a more accurate estimate of expenditures on the four dams becomes \$328.6 million. We can only conclude that your citing a figure of \$62 million is a gross understatement that blatantly misleads the public.

These facilities provide power without the need to operate coal-fired power plants.

Your suggesting that a need would exist to replace LSR dam power production with coal-fired plants smacks of propaganda. According to the Bonneville Power Administration the Pacific Northwest presently enjoys a 16% surplus of electricity, and BPA predicts a surplus will continue well into the future. If the LSR dams disappeared soon, we would still have a 13% surplus of power. Further, the four dams provide just 3% of the Northwest's power supply. In 2013 wind energy in the Pacific Northwest produced 3.4 times as

much electricity as all four dams. Wind energy alone has thus already replaced the power generated by all four LSR dams more than three times over.

The suggestion that coal-fired power plants would be needed to replace any loss of hydropower at the LSR dams is completely false.

Hydropower is flexible and a great partner with wind energy. Winds vary, changing wind energy input to the power grid. Hydropower turbines can be adjusted quickly to add or reduce power to keep the grid stable.

Like wind, hydropower also varies greatly. In fact, these two energy sources share similar efficiency ratings (production vs. nameplate capacity) on an annual basis. Further, hydropower produces its greatest volume of power during the spring, when the demand and price for that power are at their lowest levels. More importantly, your above statement ignores the fact that of total Pacific Northwest hydropower production, the LSR dams produce less than 10%. By relying on the 90% of available hydropower from other dams in the Columbia River basin, grid stability at any point in time can readily be achieved.

About 3.5 million tons of cargo valued at \$1.5 billion transits Snake River navigation locks each year.

During the past fifteen years freight transport on the Lower Snake River has declined 69%, from a peak of 9.14 million tons in 1998 to 2.83 million tons in 2014.

All container shipping on the LSR has ceased, and the waterway has been all but abandoned by the lumber industry, along with paper, pulp, and petroleum.

Freight volume in 2015 is again trending downward and has averaged over the past seven years 2.6 million tons per year. This average is 26% lower than the 3.5 million tons you've claimed. Meanwhile, costs of maintaining the waterway are climbing steadily, and another extended river closure for major repairs is scheduled to begin in December 2016.

The lower Snake waterway is categorized by the Corps of Engineers as a waterway of "negligible use." If freight volume were to double on this waterway, the Snake would still be identified, as per the Corps' own categories, as a "negligible use" waterway.

These facilities help sustain the region's economy through recreational tourism and cargo movement.

In developing the 2002 LSRFR, the Corps hired noted recreational economist John Loomis to identify the increased recreational values that would result from breaching the LSR dams. Loomis pegged the economic gain *via* dam breaching at over \$300 million. The Corps, however, somehow concluded in the LSRFR this value was \$73 million per year. According to a recent reanalysis of the LSRFR by Earth Economics, a highly respected non-profit that has completed many recreational value studies for government entities in the State of Washington, had the Walla Walla District properly interpreted and accurately reported Loomis' work, the economic value to be gained by breaching the dams in recreational dollars alone is an average annual \$1.5 billion. Much of that amount translates directly into hundreds of jobs and enhanced revenue for businesses in the tourism industry, particularly in eastern Washington and north central Idaho.

With respect to the region's economy related to waterborne commerce, noteworthy is the fact that of the twenty-one largest employers in the quad-cities of Lewiston, Clarkston, Moscow and Pullman, only one ships anything by water. That company is located about two miles from the Port of Lewiston (POL), produced 50% more tonnage of product than all the grain shipped through the POL, and yet in 2014 transported 99.5% of its product by truck and rail.

There is not really a lot of (public) criticism of the 2001 (LSRFR) study per se, but rather criticism of the way the federal government does economic analysis—a criticism of the process, not of the Corps.

Your above Oct. 5th KRFP Radio interview statement is inaccurate. As noted above, the most significant reanalysis of the Corps' 2002 LSRFR was recently completed by retired Corps civil engineer Jim Waddell. Waddell's reanalysis of the cost of keeping the dams in place follows the same Corps procedures used in the LSRFR but replaces earlier Corps cost projections with now available actual costs and further addresses omissions, errors, miscalculations and faulty assumptions contained in the original work, some of which were made known to the Corps by District personnel at the time of the study. The reanalysis demonstrates that in 2002 the Walla Walla District understated the true cost of keeping the dams in place by \$140 million on an average annual basis.

I'm not going to be the commander who allows irreparable harm to an ecosystem. If it was very clear we needed to remove those dams, we would recommend it.

This may be the statement you've made that astonishes us most. The damming of the lower Snake River launched, and currently perpetuates, an ecological disaster.

Millions of adult salmon and steelhead once filled the rivers of the lower Snake River basin, returning each year to the Grande Ronde and Imnaha, the Clearwater and Lochsa, the Salmon and Pahsimeroi and Redfish Lake. As is exceedingly well documented, these fish brought with them not only the seeds of a new generation, but food for fellow creatures large and small and nutrients for land and water alike. Since their completion in 1975, the lower Snake River dams have been driving once thriving wild populations onto the rolls of threatened and endangered species and are likely to drive them to extinction. Species include the Snake River sockeye salmon, fall Chinook salmon, spring/summer Chinook, and steelhead trout. Other endangered and threatened species include the West Coast's Southern Resident Killer Whales, which feed on Chinook salmon, and bull trout, which feed on salmon eggs. In addition, an estimated 95% of Pacific lamprey have disappeared from the lower Snake River and its tributaries.

The dams also flooded approximately 30,000 acres, much of it once highly productive and irreplaceable riverine habitat. As noted by Idaho Historian Keith Peterson in his book *River of Life, Channel of Death*, Washington Department of Fish and Game noted that in 1972 this habitat was home to an estimated 22,000 pheasants, 57,000 quail, 20,000 partridge, and 120,000 mourning doves—all game birds. By 1987 the total game bird population supported along the river was just 2,000, a 99% decline. Furbearing animals dropped from 13,000 to 500. Songbirds that wintered in the area dropped from 95,000 to 3,000.

These are only some of the more egregious examples of the significant environmental costs of the four LSR dams. It's time you, we and the Corps as an agency recognize out loud the environmental disaster that has occurred due to the LSR dams and take the one action that can reverse that disaster and allow restoration of the river and its wildlife to begin: breaching of the four LSR dams. Indeed, we urge the Corps to move toward breaching with speed, for the Snake River watershed ecosystem offers one of America's greatest refuges for native species as global warming continues to unfold across our planet—as a large majority of scientists know it will.

Considering all of the above, we expect you and the Corps to reexamine the information, data, and dollar figures that you have been providing to the public. We request that you publicly and widely in the media correct your false and misleading statements and live up to the truth and transparency mandate democracy holds up to government officials and agencies.

We also want to draw your attention to the Walla Walla District website's (<http://www.nww.usace.army.mil/Missions/LowerSnakeRiverDams.aspx>) inclusion of a link to a document produced by the Pacific Northwest Waterways Association titled "Columbia Snake River System Facts." Since it is inappropriate for a Federal agency to provide a public forum for a special interest group, we request the immediate removal of this link from the District's website. As an alternative, we would be happy to provide you with links to documents providing a countering viewpoint.

Finally, returning to your stated appreciation for American democracy: Before the American public can make an informed and wise decision about breaching the lower Snake River dams, we state again that citizens must know the unvarnished, un-propagandized, data-verifiable facts. You and your agency have an obligation to convey those facts to the public. Your recent statements to various media fail to meet that responsibility, and we stand keenly attentive to future statements you make or circulate.

Looking forward to your responses to our requests,

Kevin Lewis, Idaho Rivers United, kevin@idahorivers.org

Gary Macfarlane, Friends of the Clearwater, gary@friendsoftheclearwater.org

Sharon Grace, Southern Resident Killer Whale Chinook Salmon Initiative, parons@rock-island.com

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F. S. Buck Ryan, Snake River Waterkeeper, buck@snakeriverwaterkeeper.org

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cc: Lt. General Thomas P. Bostick, Chief of Engineers, USACE
the media